

EVALUATION OF THE IMPACT OF SELECTED REFORMS

IMPROVING TEACHER QUALITY NATIONAL PARTNERSHIP

**Final Report
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Statistics and Evaluation**

The SiMERR National Research Centre
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Glossary Glossary

ACARA	Australian Curriculum and Reporting Authority
ACER	Australian Council for Educational Research
AITSL	Australian Institute for Teaching and School Leadership
ANOVA	Analysis of Variance
AP	Assistant Principal
APST	Australian Professional Standards for Teachers
AQF	Australian Qualifications Framework
AQFC	Australian Qualifications Framework Council
ATSI	Aboriginal and Torres Strait Islander
C4E	Centre for Excellence
Classroom teacher ACC	NSWIT accredited teacher
COAG	The Council of Australian Governments
Construct	A variable that is not directly observable
DASA	Data and School Analysis
DP	Deputy Principal
Early career teacher (ECT)	A graduate teacher working towards full registration in the first three-to-five years of teaching
Estimate reliability	This assesses the extent to which item-location estimates would be replicated if the study were to be repeated with a different sample of respondents. A measure of survey reliability in Rasch is expected to be greater than 0.7
GTIL	<i>Great Teaching, Inspired Learning: A Blueprint for Action</i> (NSW DEC, 2013)
HAT	Highly Accomplished Teacher
HSC	Higher School Certificate
infit and outfit mean scores	Expressions of the extent to which the data fit the Rasch model. A mean measure close to 1.00 is anticipated
ICT	Information and Communication Technology

ILP	Individual Learning Plan
ITQ NP	Improving Teacher Quality National Partnership
LBOTE	Language Background other than English
LOP Leader of Pedagogy	A HAT equivalent title used by the Catholic sector
Low SES	Low Socio-economic Status
MANOVA	Multivariate Analysis of Variance
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
NAPLAN	National Assessment Program – Literacy and Numeracy
NESB	Non-English Speaking Background
New Scheme teacher (NST)	Teachers employed to teach in NSW after October 1 2004 or who have re-entered the teaching workforce having been out of the classroom for more than five years
NP	National Partnership
NSWIT	New South Wales Institute of Teachers
Paraprofessional	An operational or educational support (non-teaching) role in the classroom
PISA	Programme for International Student Assessment
PLP	Personalized Learning Plan
PRG	Project Reference Group
PST	Preservice Teacher
QTF	Quality Teaching Framework
QUEST	A software package developed by ACER for item analysis using the Rasch model for partial credit scoring. It is used extensively in social science research
RAP	Results Analysis Package
Rasch analysis	Rasch analysis allows data to be expressed on an interval scale that permits the subsequent use of powerful parametric techniques for analysis. It represents a breakthrough in qualitative research in the social sciences because it can reveal relationships and patterns among the data that would be masked by less powerful techniques

SC	School Code: SC codes were used to differentiate commentary across schools while maintaining the confidentiality of the school identity.
SiMERR	The SiMERR National Research Centre
SMART	School Measurement, Assessment and Reporting Toolkit
SPO	Structure, Process and Outcome
TARS	Teacher Assessment and Review Schedule
Teacher PA/PL	Teacher who has achieved Professional Accomplishment or Professional Leadership career stages of the NSWIT <i>Professional Teaching Standards</i> . A HAT equivalent term used in the independent sector
TEI	Teacher Education Institution
TPL	Teacher Professional Learning
Turn	The Turn Numbers indicated in in-text citations specify the speaking turns in which the quoted material was stated, enabling the quoted material to readily located for future reference if required.
under-fit and over-fit items	Item estimates that do not meet the expectations of the Rasch model. Under-fit items show more variance than predicted by the model and in the over-fit items show less variance than predicted by the model

Research Team

This Evaluation project represents a genuine collaboration of academic staff from three NSW universities. The research team comprises members from the SiMERR National Research Centre at the University of New England, and senior researchers from the Australian Catholic University – Strathfield Campus and University of Western Sydney. The Evaluation team brings to this project a mix of quantitative and qualitative research techniques and skills, as well as experience in large-scale national and international research initiatives.

Prior research undertaken by team members enabled the application of proven analytical frameworks, current evaluation techniques and extensive experience working with professional standards for teachers both within Australia and overseas. Members of the Team are:

Professor John Pegg, Evaluation Project Team Leader, and Director, SiMERR National Research Centre

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- Ms Rhiannon Wright for her administrative support in a range of activities.

Executive Summary

Introduction

The *National Partnership Agreement on Improving Teacher Quality* (COAG, 2009) was designed to improve teacher and school leader quality to sustain a quality-teaching workforce. It aimed to deliver system-wide reforms targeting critical points in the workforce progression to attract, train, place, develop and retain quality teachers and leaders in schools and classrooms.

The evaluation, referred to as the Evaluation of the Impact of Selected Reforms of the Improving Teacher Quality National Partnership (hereafter referred to as the 'ITQ NP Evaluation'), incorporates seven main Evaluation Questions to elaborate six Evaluation Themes.

1. Centres for Excellence Theme: An investigation of the effectiveness of C4Es in terms of improved teacher capacity, improved student performance, and collaboration with other schools and partner universities;
2. Highly Accomplished Teacher¹ Theme (Impact): An investigation of the effectiveness of the role of HATs (or equivalent) across a number of areas, including their: impact in hard-to-staff schools; facilitation of improvements in the capacity and effectiveness of other teachers; support for improved student performance; and contributions to school planning;
3. Highly Accomplished Teacher Theme (Attributes): An investigation of the characteristics of the role of HATs (or equivalent) through their own perceptions and feedback from others;
4. Paraprofessional Theme: An investigation of the impact of the support provided by paraprofessionals to teachers and students, and the possible career aspirations associated with the role;
5. Professional Experience Theme: An investigation of the roles and responsibilities of school leaders, HATs (or equivalent) and universities in preparing high quality teacher education graduates; and
6. Additional Areas of Interest Theme: An investigation of a range of contextual and policy issues that might impact on the implementation, transferability and scalability of initiatives.

The Final Report of the ITQ NP Evaluation details the data collection approaches, data collected, modes of analysis, findings and implications for practice. The research design to address the Evaluation Questions involved four broad data collection tools. These were:

1. Surveys of school staffs in which there were opportunities for Likert-scale responses and written comments on selected questions.
2. Site visits to a sample of C4E schools where principals, executive staff members, HATs (or equivalent), teachers and paraprofessionals were interviewed.
3. Surveys of preservice teachers concerning their professional experience in which there were opportunities for Likert-scale responses and written comments.
4. Professional experience reports for preservice teachers from the three universities involved in the Evaluation.

The commentary from Surveys 1 and 2 comprised written responses from 162 respondents who completed Survey 1 and 177 respondents who completed Survey 2, with 97 respondents in

¹ HAT (or equivalent)

common. The interview corpus from the site visits, which comprised more than 680,000 words, was obtained from 104 interviewees across 22 sites, and the Professional Experience Report corpus, which contained more than 215,000 words, was compiled from 550 reports.

The analyses presented in this Report, therefore, have been based on substantial data sets, and the conclusions and implications are based on analyses across all data sets. The summative findings below sequentially address each of the Evaluation Themes, although it is acknowledged that there are relationships within, across and between many of the Evaluation Questions.

Structures, Processes and Outcomes

To assist with the synthesis of the multiple data sources and to help lay a platform for the implications of the research, the Evaluation Questions were further considered in terms of three organising principles: structures, processes and outcomes. These three perspectives are the key elements of the Donabedian Framework (Donabedian 1966, 1988), which offers a unifying perspective. Specifically, the Donabedian Framework provides further insights into the sustainability of initiatives within and across contexts and helps address the notion of quality – the core and underlying construct of ITQ NP initiatives.

In the context of the Evaluation Questions, outcome measures include the quality of the teaching and learning environment, job satisfaction, enhanced teacher capacity, and student learning outcomes. The extent to which a school/network can set up structures to engage effectively in initiatives leading to an improvement agenda focused on improving the quality of its teaching and learning can be monitored by evaluation against a contextually determined sequence of structures, processes and outcomes.

Overall findings

Evaluation Question 1(a)

To what extent are Centres for Excellence effective in achieving improved teacher capacity and improved quality of teaching in hub and spoke schools (and other schools availing themselves of support from ‘virtual’ or thematic Centres for Excellence)?

Summary for 1a

- A range of enablers, usually focused on the HAT (or equivalent) was identified through a range of support for a focus on pedagogy.
- Potential inhibitors were largely identified in the context of being positively addressed by the C4E structure, e.g.: having available time; establishing communication channels; focusing on professional learning; and ensuring shared responsibility, vision and priorities
- In relation to support for individual teachers, important practices were targeting professional learning to meet individual teacher needs and opportunities for action research. Strategies, such as, mentoring and peer coaching supporting individual teachers and working with performance data, were evaluated positively.
- A range of areas of improved teacher capacity were identified and included: improved teacher feedback; better assessment practices; improved teacher reflection; increased teacher professional dialogue and discussions; better teacher collaboration.
- Schools were reported to focus predominantly on whole-school improvement strategies that were seen to make a difference in terms of teacher professional learning, building networks and improved pedagogy.

- Long-lasting change was seen as dependent upon whole-school strategies, built around a positive school culture, ensuring the engagement and participation by all stakeholders within the school community.
- HATs (or equivalent) were driving teacher capacity to use data to inform programming and teaching at both class and group level. Data analysis allowed expertise to be better targeted to the most vulnerable students.
- The Professional Standards for teachers were reported to provide a strong basis for improving and/or enhancing teaching practice.

Evaluation Question 1(b)

To what extent are Centres for Excellence effective in achieving improved student performance in both hub and spoke schools?

Summary for 1b

- The establishment of C4E facilitated a focus on strategies for improving the quality of those aspects of teaching known to improve learning.
- A variety of forms of informal and formal measurement were used to gauge improved student performance.
- A school-wide focus on professional learning for teachers was reported to have a positive impact upon student performance.

Evaluation Question 1(c)

To what extent are Centres for Excellence effective in achieving effective application of network learning principles where schools collaborate and share?

Summary for 1c

- The C4E initiatives were reported to contribute to the development of professional networks both within and across schools, many of which focused on professional learning or improved pedagogy.

Evaluation Question 1 (d)

To what extent are Centres for Excellence effective in achieving effective relationships with partner universities?

Summary for 1d

- Partnerships with universities were predominantly focused on support for preservice teacher education, although some schools had broader relationships.
- Developing a deeper relationship that serves to improve the quality of teaching in the school, outside of the research-based interests of universities, presents some issues.
- Strong relationships were built on establishing reciprocal benefits, i.e., a clear focus and structured actions.

Implications for Evaluation Question 1

Implication 1.1: concerns the impact of longitudinal needs-based professional learning. The structure of a continuous and ongoing focus on aspects of professional learning in context,

rather than one-off courses, was seen as strongly developing teacher capacity. Such learning occurred through a set of similar strategies. These included:

- instructional rounds;
- peer coaching;
- team teaching;
- demonstration lessons;
- classroom observations; and
- action learning (a form of collaborative action research)

The HAT (or equivalent) was central to these strategies and the retention of the HAT (or equivalent) role in NSW schools would be a highly positive and advantageous outcome of the C4E initiative.

This implication highlights a significant issue concerning the form of Teacher Professional Learning (TPL). It represents a reconceptualisation of what schools can do for themselves, rather than what outside agencies can provide. It represents a way of energising schools and building on their strengths and capacities, thereby enabling education jurisdictions to reconceptualise the way they deliver TPL support.

Implication 1.2: concerns the benefits, other than financial, of having the HAT (or equivalent) work with a number of schools in a network model, such as the hub-and-spoke model. A network structure requires schools to undertake collaborative curricular and pedagogical planning. However, consideration of self-organising processes that enable schools to collaboratively form structures and select partners in their own ways is required. The current DEC initiatives towards schools forming their own networks could be of great assistance in this work.

Implication 1.3: relates to the potential of action research as a form of professional learning. This offers a way of addressing the important question of sustainability. It was also an important feature of some professional learning in C4E schools. Preservice teachers with Master's degrees will soon be graduating around Australia under *Australian Qualifications Framework* (Australian Qualifications Framework Council, 2013), Level 9 guidelines. This change will have provided teachers with knowledge and experiences of research design. Individual academics worked well in C4E schools with which they had relationships. An important feature of developing academic-school relationships could be for academics to focus on assisting schools with developing action-learning models in the school. Such a focus on research may help align university and school imperatives more closely.

Evaluation Question 2(a)

To what extent has the HAT (or equivalent) initiative been effective in achieving effective career progression within the classroom for skilled teachers?

Summary for Evaluation Question 2(a)

The HAT (or equivalent) role:

- provided the opportunity for demonstrating leadership in the classroom;
- facilitated the building of a positive teaching and learning culture through professional dialogue within and across school networks;
- provided schools with a resource in the form of a person who could focus on the implementation of school improvement strategies; and
- was reported to enable the application of a broad skill set that was conducive to enhancing professional practice for individuals, teams and networks.

Evaluation Question 2(b)

To what extent has the HAT (or equivalent) initiative been effective in achieving attraction and retention of skilled teachers in hard to staff schools?

Summary for Evaluation Question 2(b)

- The HAT (or equivalent) role provided the opportunity for someone with the requisite skill set and aspirational goals to focus on teaching and learning issues that aligned with facilitating professional growth in others.
- Skills and attributes, motivation and a sense of community were needed considerations for the person in the HAT (or equivalent) role to meet the contextual priorities of a hard to staff school.

Evaluation Question 2(c)

To what extent has the HAT (or equivalent) initiative been effective in achieving improved capacity and effectiveness of other teachers in ITQ NP hub and spoke schools (as well as in relevant Low SES NP schools)?

Summary for Evaluation Question 2(c)

The role of the HAT (or equivalent):

- contributed 'extensively' or 'considerably' to improved support for teachers and to improvements in the quality of teaching within the school;
- resulted in more effective career progression for beginning, early career and experienced teachers through coordinating mentoring, collaboration and classroom observations;
- was central to implementing an improvement agenda based on mutual advantage, role flexibility and effective relationships; and
- was responsible for building teaching and learning cultures that promoted confidence, facilitated teachers sharing of practice and opened up classrooms and encouraged teachers to develop best practice.

Evaluation Question 2(d)

To what extent has the HAT (or equivalent) initiative been effective in achieving enhanced capacity of teachers to utilise student attainment data to help them more effectively meet individual student needs?

Summary for Evaluation Question 2(d)

There was significant evidence concerning the contribution of HATs (or equivalent) to:

- improve the capacity of teachers to use student attainment data effectively;
- provide professional learning that acknowledged different levels of staff engagement and/or facility with data usage; and
- enhance staff capacity within one or more of four areas related to data usage: relevance, access, reflection and application.

Evaluation Question 2(e)

To what extent has the HAT (or equivalent) initiative been effective in achieving improved student performance?

Summary for Evaluation Question 2(e)

Initiatives facilitated by the HAT (or equivalent) were reported to:

- have a positive influence on student retention and learning outcomes;
- strengthen the teaching and learning environment, perceived to be a pre-cursor to achieving improved student-learning outcomes;
- enhance teacher reflection, teacher expectations, student engagement, and feedback, regarded as essential ingredients in achieving improved student learning outcomes.

Evaluation Question 2(f)

To what extent has the HAT (or equivalent) initiative been effective in achieving sustainable improvements in teaching and learning through changes in school planning and management practices?

Summary for Evaluation Question 2(f)

Key considerations for sustaining improvements involved the HAT (or equivalent):

- effecting school and staff culture positively through modelling and demonstrating quality teaching, supporting the quality of professional learning, establishing collaborative networks within and between schools, working collaboratively with members of the school executive, and mentoring/coaching and supporting individual teacher;
- being the catalyst for achieving 'collective capacity' within a school and enabling others to focus on the core business of their roles; and
- reflecting on existing practices and processes, adopting a whole-school focus for professional learning, and addressing contextual needs within and across schools.

Evaluation Question 3(a)

How is the role of the HAT (or equivalent) defined by characteristics that include their qualifications, work experience, professional backgrounds and career ambitions?

Summary for Evaluation Question 3(a)

- The HAT (or equivalent) role was shaped by three considerations, namely, previous roles held, a well-developed skill set – particularly people management and classroom skills, and contact with stakeholders from within the profession and the wider school community.
- The HAT's (or equivalent) professional perspective was shaped by a number of influences that included personal professional growth, working with peers, adapting to new contexts, improved learning outcomes for students, and engagement with the profession.

Evaluation Question 3(b)

How is the role of the HAT (or equivalent) defined by characteristics that include the reasons they applied to become a HAT (or equivalent) and whether aspirations have been realised?

Summary for Evaluation Question 3(b)

- Collaboration with colleagues, professional motivations, and improving learning outcomes for student were consistently provided as reasons for taking on the HAT (or equivalent) role.
- HATs (or equivalent) were in general agreement that the role was a rewarding one in terms not only of opportunities, but also in terms of professional feedback.
- In terms of aspirational realisation, a recurring theme articulated by HATs (or equivalent) reflecting the main reason for taking on the role, was the notion of professional growth, at the individual level and for others through professional collaboration.

Evaluation Question 3(c)

How is the role of the HAT (or equivalent) defined by characteristics that include their perception of their roles and the impact they are having in both hub and spoke schools, as well as in relevant Low SES schools, on teacher capacity and quality as well as student performance?

Summary for Evaluation Question 3(c)

- The HAT (or equivalent) perceived a key aspect of the role to be relevant to the needs of their stakeholders, a readily accessible resource person with the requisite skills and expertise to plan, implement and support an improvement agenda, as well as to facilitate a culture of continuous improvement.

Implications for Evaluation Questions 2 and 3: HAT – Impact and Attributes

Implication 2/3.1²: *The first implication* affirms an integral component of the HAT (or equivalent) role, namely, the provision of support to teachers across all career stages, but particularly at the preservice, Early Career and New Scheme teacher levels. There is a potential to review the many induction programs that were facilitated and coordinated by HATs (or equivalent) in ITQ NP and LOW SES NP partnership schools to identify best practice in the provision of professional experience and entry, or re-entry, into the profession. Such a review would also identify the elements of effective relationships between schools, networks of schools and TEIs.

The second implication 2/3.2: addresses the legislative and policy requirements that the *Australian Professional Standards for Teachers (APST)* (AITSL, 2011) apply to all NSW teachers. Evaluation survey data indicated that the HAT (or equivalent) role facilitates certification at the voluntary (higher) level career stages (AITSL, 2012) by providing the opportunity to demonstrate and document practice at the Highly Accomplished and Lead career stages. This opportunity was recognised across school personnel. People in the HAT (or equivalent) role and the experiences gained in the certification process constitute resources that needs to be shared within the profession to motivate other teachers to consider options for aligning their professional practice with the APST and, possibly, applying for certification. There is also a need to recognise, as role models, other teachers who have achieved accreditation at the voluntary career stages and to implement strategies for sharing their experiences within the profession.

² Implication 2/3.1 denotes the first implication arising from Themes 2 and 3.

Implication 2/3.3: addresses the need to acknowledge the HAT (or equivalent) role as a distinct career option in schools. In the context of the short time-frame of the ITQ NP initiatives within schools, options for professional life at the conclusion of programs were far from clear. For some, the role became a stepping-stone in the progression to leadership and senior management positions in schools. For others, who returned to their substantive positions, they did so knowing that their own professional practice had been substantially enriched. The HAT (or equivalent) role was widely identified as an important component of sustaining a school/school network improvement agenda that has a clear teaching and learning focus. Systems need to seek ways to ensure the identity and autonomy of this role within the profession.

Implication 2/3.4: builds on the notions that teaching is best if it is a collaborative process and that the HAT (or equivalent) role was recognised as a 'driver' of developing collective capacity. This implication recognises the impact of those aspects of the HAT (or equivalent) role that supported the professional practice of teachers across career stages, either within individual schools or across networks of schools. The HAT (or equivalent) role provided extensive opportunities to engage in and facilitate teaching and learning activities, particularly so that teachers could share the responsibilities for whole-school improvements.

The number of school and outside-organisation personnel with whom the HAT (or equivalent) had interactions was also extensive. A key attribute of the HAT (or equivalent) role that emerged was the potential to establish, develop and maintain effective relationships, and there were many instances across ITQ NP and LOW SES NP schools where this attribute was expressed successfully in practice. The HAT (or equivalent) role, associated attributes and its sustained teaching and learning focus, have the potential to enhance contextually relevant professional practice.

Evaluation Question 4(a)

To what extent has the paraprofessional initiative been effective in achieving improved support for individuals or groups of students?

Summary for Evaluation Question 4(a)

- Some Educational Paraprofessionals were reported to have improved the support for students.
- The majority of paraprofessionals were Operational Paraprofessionals and these did not directly offer in-class support to students, although those engaged with technology support and community engagement were reported to have indirectly supported students.

Evaluation Question 4(b)

To what extent has the paraprofessional initiative been effective in achieving improved support for teachers?

Summary for Evaluation Question 4(b)

- The success of the paraprofessional role was attributed to the support that it provided to teachers in the areas of administration, event management, technology, and community engagement responsibilities.
- While such support for teachers could impact on the quality of teaching and learning, few respondents reported an explicit connection between the paraprofessional role and

these outcomes rather observing that the support enabled teachers to concentrate more on the core business of teaching.

Evaluation Question 4(c)

To what extent has the paraprofessional initiative been effective in achieving improved student performance?

Summary for Evaluation Question 4(c)

- Ninety percent of the survey respondents indicated the Paraprofessional Role had improved student-learning outcomes, however, there was little direct evidence that the paraprofessional role contributed directly to student-learning outcomes in the site visit interviews. There was recognition of them helping teachers and families and this support has the potential to improve student outcomes indirectly.

Evaluation Question 4(d)

To what extent has the paraprofessional initiative been effective in achieving enhanced job satisfaction of teachers and leaders?

Summary for Evaluation Question 4(d)

- Overwhelmingly, survey respondents indicated that the Paraprofessional role had enhanced job satisfaction of teachers and leaders and 43% of respondents indicated that paraprofessional role had enhanced the job satisfaction of teachers and leaders 'extensively' or 'considerably'.

Evaluation Question 4(e)

To what extent has the paraprofessional initiative been effective in achieving pathways for paraprofessionals into teaching?

Summary for Evaluation Question 4(e)

- The Educational Paraprofessional role provided an effective pathway for appointees who held or were undertaking a teacher qualification.
- The Educational Paraprofessional role did not result in any paraprofessionals enrolling in a preservice teacher program subsequent to appointment.
- The Operational Paraprofessional roles were not designed to provide a pathway into teaching and this was confirmed in the findings.

Implications for Evaluation Question 4: Paraprofessional

Implication 4.1: is consistent with the five high-level educational outcomes suggested in the terms of The Council of Australian Governments (COAG, 2009). The paraprofessional role contributes to the realisation of COAG's outcomes as follows.

- *"All children are engaged in and benefiting from schooling"* (COAG, 2009, p. 3) – through providing support for teachers to concentrate more on the core business of teaching.
- *"Schooling promotes social inclusion and reduces the educational disadvantage of children, especially Indigenous children"* (COAG, 2009, p. 3) – through developing good relationships with the local community resulting in enhanced parent and wider

community involvement in the school-learning environment (especially in more remote areas).

Hence, the strategic, contextualised use of a paraprofessional role has the potential to support the ITQ NP agreement (COAG, 2008) to develop “teachers and school leaders to enhance their skills and knowledge throughout their careers” (ACARA, 2013, p. 13).

Implication 4.2: links with policy ideas from *Local Schools, Local Decisions* (NSW DEC, 2011). One focus of this report concerns the opportunity for schools to use paraprofessionals to support their school improvement programs. In particular, the following reforms are relevant. These are:

- the ability of schools to choose the number and roles of staff and the mix of permanent and temporary staff within their budgets to best meet local needs; and
- strengthened performance management and professional development linked to the school plan and professional standards for all staff.

Evaluation Question 5

Do C4Es prepare higher quality teacher education graduates who are better equipped and prepared to teach in NSW schools?

Summary for Evaluation Question 5

- Whilst it is beyond the scope of this evaluation to comment upon the quality of graduates, C4Es provided environments where support for the professional experience is augmented and focused through the HAT (or equivalent) role to provide an increased emphasis on quality teaching and collaborative practices fundamental to strengthening the capacity of supervisors to effectively support of the professional experience.
- Preservice teachers indicated that supervising teachers have the greatest influence on the success of their professional experience and as such should be the focus of any initiatives to improve the professional experience.
- There is a need to provide supervising teachers with professional support on how to better assess and describe teaching practice against the professional standards.
- Supervising teachers in C4E and spoke schools were more able to describe teaching practice against the professional standards than teachers in other schools.

Evaluation Question 6

Summary for Evaluation Question 6

How cost effective are professional experience programs delivered through Centres for Excellence?

- From a cost benefit perspective, C4Es provided a professionally rich context to improve the quality of the professional experience.
- A range of costs were identified for all stakeholders.
- In the case of C4E the opportunity costs were identified for all stakeholders. (Opportunity costs are the benefit, profit, or value of something that must be given up to acquire or achieve something else.)
- Examples included opportunity costs, such as, reputations, workload, and student learning and financial costs, such as, providing accommodation and other resources for preservice teachers.

Evaluation Sub-question 6a

What are the variations across sectors in effective professional experience delivery?

Summary for Evaluation Question 6a

- Within the constraints of guidelines provided by the *Accreditation of Initial Teacher Education Programs in Australia – Standards and Procedures April 2011* (AITSL, 2001), variations in the delivery of effective professional experience arise from:
 - the timeframe, scheduling and structures established by universities for the conduct of the professional experience;
 - the support initiatives established by school sector authorities;
 - variation in aspects of schools' delivery of professional experience as a consequence of the specific contextual environments in which placements occur; and
 - the nature of the feedback provided to preservice teachers.

Evaluation Sub-Question 6b

What constitutes an effective relationship between schools, training institutions and employers in the development and delivery of high quality professional experience?

Summary for Evaluation Question 6b

- Generally, partnerships between schools, universities and employers are focused on and seek to build upon existing relationships that support the delivery of professional experience.
- Dialogue, the development of shared understandings, university responsiveness and reciprocity are characteristic of effective relationships.
- Diverse professional learning programs for supervising teachers, teacher educators and/or preservice teachers were associated with effective relationships

Implications for Evaluation Questions 5, 6, 6a and 6b

Implication 5/6.1: concerns the differences identified in the analyses of ways supervising teachers mentor preservice teachers, and make commentary against the Professional Standards. Supervising teachers need advice on how they might improve or enhance preservice mentoring and report detail. This implies there is a need for improving the current advice to teachers on how to report against the standards.

Implication 5/6.2: concerns the development of common processes, requirements and expectations that facilitate comparable professional experiences for preservice teachers within and across universities and schools. For example:

- Universities could direct more attention to providing advice on, and monitoring of, the quality of the professional experience (Reports and practice) to ensure that the professional experience is not affected by course type;
- school systems and schools need to promote collaborative networking both within and across schools to strengthen the mentoring capacity of supervising teachers in the provision of the professional experience;
- schools presently designated as 'C4Es' and, where applicable, schools presently designated as 'spoke schools' need to sustain the current collaborative networking presently facilitated by HATs to strengthen the mentoring capacity of supervising teachers in the provision of the professional experience; and

- school systems and schools need to better support supervising teachers' capacity to work with the Graduate Teaching Standards in reporting preservice teachers' accomplishments and needs.

Implication 5/6.2: the enhanced structures, processes and expertise that have been built in C4Es to support preservice teachers need to be sustained, promoted and further documented. C4Es should be designated (maybe recognised?) as specialist professional experience schools, providing models that increase support for and the quality of professional experience placements. The role of the HAT (or equivalent) was critical to the facilitation, coordination and support for the professional experience in schools. This was achieved through the design of effective context relevant programs, and developing, facilitating and maintaining effective relationships with universities.

Evaluation Question 7(a)

What are the similarities and differences across settings with respect to the importance of contextual factors in the impact of the three initiatives?

Summary for Evaluation Question 7(a)

- The level of choice and/or involvement of C4Es in the initial application was identified as a key contextual factor that affected whether Spoke schools would engage with projects or become members of the learning communities' initiatives.
- The commentary indicated that strategic planning and action from C4E Principals and HATs (or equivalent) were required to overcome any reluctance of, or resistance from, spoke schools.
- The level of commitment and continuity of school leadership to the ITQ NP projects were presented as important to the success of the initiative.

Evaluation Question 7(b)

What are the similarities and differences across settings with respect to the preparation of higher quality teacher education graduates who are better equipped to teach in NSW challenging schools, such as, those that are remote or which have high Aboriginal or Torres Strait Islander (ATSI) enrolments?

Summary for Evaluation Question 7(b)

- The need for teacher education graduates to have greater knowledge and understanding of ATSI education was prominent in the commentary due to; more students identifying as ATSI; schools broadening responsibilities for ATSI support from specialised units to all teaching staff; C4E schools serving as beacons for ATSI education; increasing ATSI partnership projects through C4E hub and spoke model.

Evaluation Question 7(c)

What are the similarities and differences across settings with respect to the needs of new teacher education graduates for successful teaching in challenging schools?

Summary for Evaluation Question 7(c)

- According to the C4E (or equivalent) school personnel who were interviewed, there appears to be very little difference required as far as preparation goes for pre-service teachers appointed to challenging, remote or metro schools.

- Commentary identified required knowledge and personal attributes that are mirrored in the expectations of the Australian Professional Standards for Teachers.

Evaluation Question 7(d)

What are the similarities and differences across settings with respect to the particular training needs of teachers in schools with high Aboriginal or Torres Strait Islander enrolments?

Summary for Evaluation Question 7(d)

- Preservice teachers need greater understanding of ATSI culture and learning differences, especially awareness of successful ways many teachers are approaching these critical issues.

Evaluation Question 7(e)

What are the similarities and differences across settings with respect to the factors in their training that lead to the higher retention of high quality teachers in challenging schools?

Summary for Evaluation Question 7(e)

- There was little distinction drawn by interviewees between broad issues of teacher retention and preparation of pre-service teachers for school contexts.
- In terms of retention, strategies suggested included school-based incentives and support, more flexible career pathways, increased opportunities for collaboration and networking across schools.

Evaluation Question 7(f)

What are the similarities and differences across settings with respect to the factors in the professional experience that contribute to the attraction and retention of high quality mathematics and science teachers?

Summary for Evaluation Question 7(f)

- Attraction of science and mathematics teachers, especially outside metropolitan areas, was presented as a more fundamental issue than retention.
- Strategies promoted for increasing retention were linked to more attractive terms and conditions in positions found in the broader community and were repeatedly presented as a perceived source of attrition for science and mathematics teachers.

Evaluation Question 7(g)

What are the similarities and differences across settings with respect to the factors affecting sustainability of the initiatives?

Summary for Evaluation Question 7(g)

- Varying levels of confidence were expressed about the long-term sustainability of initiatives. Nevertheless, most principals outlined management plans aimed at sustaining or replicating the initiatives as much as possible by utilising remaining financial and human resources.

Evaluation Question 7(h)

What are the similarities and differences across settings with respect to the cost effectiveness of the three initiatives?

Summary for Evaluation Question 7(h)

- Cost effectiveness was seen, in part, in terms of reduced opportunities for shared professional learning and support for building a 'quality profession'. Central to maintaining a focus on enhanced professional teaching and learning was the preservation of the HAT (or equivalent) role.

Evaluation Question 7(i)

What are the similarities and differences across settings with respect to models and strategies adopted within C4Es, and involving HATs (or equivalent), and paraprofessionals, which can be generalised across contexts?

Summary for Evaluation Question 7(i)

- There were similarities and differences with respect to models and strategies adopted within C4Es, involving HATs (or equivalent) and paraprofessionals
- Three C4E models were trialled: Hub and Spoke; Thematic; and a Centralised model.
- The HAT (or equivalent) role across all contexts was structured around responsibilities to work at a school level to improve teaching quality, to develop networks and learning communities, to support the analysis of student achievement data and to lead and support the teaching and assessment practice of other teachers.
- Paraprofessionals undertook a range of roles including supporting the engagement of Aboriginal and/or NESB students and their communities.

Implications for Evaluation Question 7

Implication 7.1: is consistent with Michael Fullan's (2005, 2007, 2009) 'change theory', which suggested that change is more effective when it is 'bottom up' rather than 'top down'. The findings outlined in this report strongly suggest that in future initiatives of this nature, systems need to consider the ways in which school groupings (e.g., C4E and spoke schools) are determined to achieve full, immediate and cohesive involvement from both school administrators and teaching staff.

Implication 7.2: is as much about attracting teaching staff in regional/remote schools as it is about retaining them. During site visits school principals, in particular, were confident of keeping staff once they arrived, but getting them to commit initially seemed to be an issue that requires systems and/or autonomous schools to consider wider financial incentives to attract quality staff. This has wider and significant industrial implications. Significantly, there may need to be different sets of policies for attracting and retaining teachers in regional/remote schools. This may have broader implications for schools, including the need for differentiated wage scales based on geographical location and/or teacher shortages in particular subject areas.

Implication 7.3: concerns what was seen as the most resounding success of the ITQ NP initiative, that is, the creation of the HAT (or equivalent) position. HATs (or equivalent) were presented as a crucial role that needs to be broadened and supported, with the potential to fulfill the

professional development needs of many teachers. Its contribution was presented as being distinctively different from that provided by school Deputy or Assistant Principal positions.

Implication 7.4: is related to 7.3 above. This implication concerns the need for more expansive opportunities for teachers to develop and be formally recognised through accreditation at higher levels as possessing particular pedagogical knowledge and/or skills. The HAT (or equivalent) is just one possible position within existing organisational structures that rewards teachers and allows them to both develop individually and share such accumulated knowledge/expertise. A number of HATs (or equivalent) indicated that they did not aspire to leave the classroom to seek traditional promotional pathways. Instead, they expressed the desire to see the possibilities of different openings for them to become recognised leaders in curriculum and other teaching fields.

Implication 7.5: is related to whether schools will be able to sustain their ITQ NP initiatives once the funding ceases. A possible implication here is that systems and schools might profit best from the ITQ NP experience by considering one or more of the following courses of action:

- ways of retaining or extending HAT (or equivalent) roles in schools;
- appointing personnel who have performed the role of HAT (or equivalent) to assist non-C4E schools in developing local school initiatives of their own; and/or
- encouraging schools to develop local school partnerships and co-operative projects within the confines of their own school budgets in order to benefit from economies of scale.

Concluding Remarks

The similarities and differences that can be drawn across the C4E contexts amount to three considerations. The first concerns the pivotal role of the HAT (or equivalent). The second encompasses the importance of developing effective relationships between personnel within and across school networks, which include the wider school community as well as *universities*. The third affirms differences, and relates to the importance of identifying relevant contextual needs as the basis for developing strategies that support whole-school improvements.

In conclusion, the most significant finding from this Evaluation is that long-term employment of instructional leaders in schools would be a positive influence on the goals of the *National Partnership Agreement on Improving Teacher Quality* (COAG, 2009) and *Great Teaching, Inspired Learning: A Blueprint for Action* (NSW DEC, 2013). Because of its whole-school, teaching and learning focus, the HAT (or equivalent) role emerged as the major quality assurance mechanism in the development of effective relationships and the management of a school's, or network's, core improvement agenda.

1 Introduction

1.1 ITQ NP evaluation in NSW

The evaluation, referred to as the Evaluation of the Impact of Selected Reforms of the Improving Teacher Quality National Partnership (hereafter referred to as the 'ITQ NP'), incorporates a number of related Evaluation Questions to elaborate six Evaluation Themes, namely:

1. Centres for Excellence Theme: An investigation of the effectiveness of C4Es in terms of improved teacher capacity, improved student performance, and collaboration with other schools and partner universities;
2. Highly Accomplished Teacher³ Theme (Impact): An investigation of the effectiveness of the role of HATs (or equivalent) across a number of areas, including their: impact in hard-to-staff schools; facilitation of improvements in the capacity and effectiveness of other teachers; support for improved student performance; and contributions to school planning;
3. Highly Accomplished Teacher Theme (Attributes): An investigation of the characteristics of the role of HATs (or equivalent) through their own perceptions and feedback from others;
4. Paraprofessional Theme: An investigation of the impact of the support provided by paraprofessionals to teachers and students, and the possible career aspirations associated with the role;
5. Professional Experience Theme: An investigation of the roles and responsibilities of school leaders, HATs (or equivalent) and universities in preparing high quality teacher education graduates; and
6. Additional Areas of Interest Theme: An investigation of a range of contextual and policy issues that might impact on the implementation, transferability and scalability of initiatives.

The seven Evaluation Questions related to each of the six Research Themes are provided below. It should be noted that Research Theme 5 (concerning Professional Experience) has two Evaluation Questions.

Theme 1: Centres for Excellence

1. To what extent are Centres for Excellence effective in achieving:
 - a. improved teacher capacity and improved quality of teaching in hub and spoke schools (and other schools availing themselves of support from 'virtual' or thematic Centres for Excellence);
 - b. improved student performance in both hub and spoke schools;
 - c. effective application of network learning principles where schools collaborate and share; and
 - d. effective relationships with partner universities?

Theme 2: Highly Accomplished Teacher (Impact)

2. To what extent has the HAT (or equivalent) initiative been effective in achieving:
 - a. effective career progression within the classroom for skilled teachers;

³ HAT (or equivalent)

- b. attraction and retention of skilled teachers in hard to staff schools;
- c. improved capacity and effectiveness of other teachers in ITQ NP hub and spoke schools (as well as in relevant low SES NP schools);
- d. enhanced capacity of teachers to utilise student attainment data to help them more effectively meet individual student needs;
- e. improved student performance; and
- f. sustainable improvements in teaching and learning through changes in school planning and management practices?

Theme 3: Highly Accomplished Teacher (Attributes)

- 3 How is the role of the HAT (or equivalent) defined by characteristics that include:
 - a. their qualifications, work experience, professional backgrounds and career ambitions;
 - b. the reasons they applied to become a HAT (or equivalent) and whether aspirations have been realised; and
 - c. their perception of their roles and the impact they are having in both hub and spoke schools, as well as in relevant low SES NP schools, on teacher capacity and quality as well as student performance?

Theme 4: Paraprofessional Role

- 4 To what extent has the paraprofessional initiative been effective in achieving:
 - a. improved support for individuals or groups of students;
 - b. improved support for teachers;
 - c. improved student performance;
 - d. enhanced job satisfaction of teachers and leaders; and
 - e. pathways for paraprofessionals into teaching.

Theme 5: Professional Experience

- 5. Do C4Es prepare higher quality teacher education graduates who are better equipped and prepared to teach in NSW schools?
- 6. How cost effective are professional experience programs delivered through C4Es?

Sub-questions

- 6a. What are the variations across sectors in effective professional experience delivery; and
- 6b. What constitutes an effective relationship between schools, training institutions and employers in the development and delivery of high quality professional experience?

Theme 6: Additional Areas of Interest

- 7 What are the similarities and differences across settings with respect to:
 - a. the importance of contextual factors in the impact of the three initiatives⁴;

⁴ Centres for Excellence, the HAT (or equivalent) role and the Paraprofessional role

- b. the preparation of higher quality teacher education graduates who are better equipped to teach in NSW challenging schools, such as, those that are remote or which have high Aboriginal or Torres Strait Islander enrolments;
- c. the needs of new teacher education graduates for successful teaching in challenging schools;
- d. the particular training needs of teachers in schools with high Aboriginal or Torres Strait Islander enrolments;
- e. the factors in their training that lead to the higher retention of high quality teachers in challenging schools;
- f. the factors in the professional experience that contribute to the attraction and retention of high quality mathematics and science teachers;
- g. the factors affecting sustainability of the initiatives;
- h. the cost effectiveness of the three initiatives; and
- i. models and strategies adopted within C4Es, involving HATs (or equivalent) and paraprofessionals, that can be generalised across contexts.

This Final Report details of the approaches, data collected, findings and implications for practice. Data collection processes included surveys, professional-experience reports and school site-visits. The survey questions and interview protocols underpinning this evaluation were developed to respond directly to the Evaluation Themes and Questions listed above. The analyses of these data required a mixed-methods approach (Tashakkori & Teddlie, 2010), comprising both quantitative and qualitative methodologies.

The structure of this report is best described using four Parts.

Part 1 provides in four Chapters the basic information to contextualise the Evaluation and the Evaluation research design. In particular, Chapter 1 provides background information. In Chapter 2, relevant research literature concerning teacher quality is reported. Themes within this Chapter include effective classroom practice, teacher effectiveness, teacher quality indicators, meanings of teacher quality, quality teaching criteria and evaluation instruments, and ways to improve teacher practice. Themes in the research literature concerned with initial teacher education such as quality teacher education programs, the place of research, and induction and mentoring programs are also included in Chapter 2.

In the case of Chapter 3, the relevant background of the evaluation is explained. This includes the Australian context as established through the Council of Australia Governments (COAG). The teacher quality policy context in New South Wales is also described. Finally, the background and focus of the Evaluation are provided.

Chapter 4 incorporates the overall research design. It discusses the four main data collection areas. These are the Surveys for school personnel and preservice teachers, the site visits to C4E schools and the related interviews with key school stakeholders, and the analysis of professional experience reports. This chapter also includes a brief discussion of the data analysis plan in terms of the quantitative and qualitative approaches used.

Part 2 of the Report consists of five Chapters that deal with the five Evaluation Questions related to the C4E initiative. These Chapters report and summarise the findings of five Evaluation Questions (EQ 1, 2, 3, 4, 7) respectively. Each Chapter brings together the data, both quantitative and qualitative, for a particular Evaluation Question obtained from Surveys 1 and 2, and the data gathered in the interviews with stakeholders in the school site visits.

Part 3 of the Report consists of two Chapters that report on Evaluation Theme 5 concerning Professional Experience. Chapter 10 provides data and commentary that addresses Evaluation

Question 5 and Chapter 11 addresses Evaluation Questions 6, 6a and 6b. Both Chapters present the quantitative and qualitative aspects of the analysis of Surveys 1 and 2 pertaining to preservice education and the quantitative analysis of the Preservice Surveys and the data drawn from the statistical analysis of 550 professional experience reports.

Part 4 of the Report consists of two Chapters. The first Chapter, Chapter 12, synthesises the research data from the previous 'results' Chapters. The organisation and substance of this Chapter is based on the Donabedian Framework (Donabedian, 1966, 1988), which evaluates quality in terms of Structures, Processes and Outcomes. This framework is consonant with the notion of quality that underpins the ITQ NP initiatives. The final Chapter, Chapter 13, draws together the findings and provides the overall summary as well as key implications for practice of the research undertaken.

2 Improving Teacher Quality Literature Review

2.1 Introduction

The international literature for this review – including policy documents – was searched using the following search terms: Teacher quality; Teaching quality; Initial teacher education; School-university partnerships; Teacher mentoring; Centres of excellence in schooling; Schools as Centres of excellence; Centres of excellence in developing teacher capacity; Centres of excellence in teaching and learning; Highly accomplished teachers; Highly accomplished teachers as mentors; Highly accomplished teachers as exemplars; Expert teachers; Expert teachers as mentors; Expert teachers as exemplars; Improving teacher capacity; Paraprofessionals in schools; Teaching assistants; School university partnerships; School university partnerships in teacher education; School networks; and Teacher development

With the exception of important work by Newmann & Associates (1996) and Haberman (1995), the literature search was based on material from 2000 only. The search terms yielded highly differentiated results. ‘Centres of excellence’ in the search term yielded very diffuse applications of the term. ‘Paraprofessionals in schools’ yielded mainly references to Special Education support staff in schools and classrooms, while ‘Teaching assistants’ yielded literature that did not reflect the roles that paraprofessionals had in our case studies (for example, Alborz et al., 2009). ‘School networks and teacher development’ also yielded very little material. Searches that included ‘School university partnerships’, ‘Teaching quality’, ‘Teacher quality’ and ‘Initial teacher education’ yielded by far the best results.

This Chapter is divided into six Sections that, when taken holistically, represent a summary basis of relevant literature for the commentary and views expressed. The first Section, ‘The teacher makes a difference’ focuses on features of effective classroom practice. The Sections, 2.3 and 2.4, review the research literature on defining and evaluating teacher quality and steps that have been analysed in improving teacher quality, respectively.

The next two Sections, 2.5 and 2.6, focus on initial teacher education, and in particular, issues identified about the nature of preservice teacher education, and research related to induction and mentoring. The final Section, 2.7, provides a summary of the research review as well as a focus on the implications of the research carried out in these areas.

2.2 ‘The teacher makes the difference’

International literature (Alton-Lee, 2003; Ayres et al., 2004; Fair Go Project Team, 2006; Fouts, 2003; Hayes et al., 2006; Jensen, 2012; Martin, 2002; Newmann & Associates, 1996; OECD, 2005; Rowe, 2003; Sawyer et al., 2007) has characterised effective classroom practice in a number of ways. Key factors include:

- knowledge of content;
- the ability to make relevant content selections;
- knowledge and practice of pedagogies that motivate, engage and commit students to learning;
- well-structured lessons;
- individualised instruction; classroom management skills; and
- an emphasis on higher-order problem solving including deep analysis of content, advanced thinking skills and deductive reasoning.

Interestingly, these factors from the literature all feature in the Standards Frameworks prepared by both NSWIT or AITSL.

A research synthesis by Zammit et al. (2007, pp. 6-11) identified key aspects of quality pedagogy as:

- high intellectual quality;
- relevance to student knowledge and cultural identity;
- use of meta-learning strategies;
- good student-teacher relationships; and
- use of assessment for learning.

High quality teaching is also marked by serious interaction with the contextual and professional factors that influence student and school outcomes (ACDE 2004; Luke 2004).

Aspects of pedagogy which Goe's (2007) research synthesis included as defining 'quality' were:

- high expectations and intellectual challenge;
- creating a classroom environment that encourages all to participate;
- ability to motivate at-risk students;
- skills in mentoring new teachers; and
- willingness to work with special education students.

A strong literature on classroom pedagogy has emerged out of Australia specifically in recent years (Ayres et al., 2000, 2004; Hayes et al., 2006; Lingard et al., 2000; Munns et al., 2013; NSWDET, 2003; Pegg et al., 2007; Sawyer et al., 2007). 'Productive pedagogies' and the NSW Quality Teaching model, which both follow the work of Newmann and Associates (1996) on authentic pedagogy, have become very high profile in that the ideas have been taken up at a systems level (Lingard et al., 2000; NSW DET, 2003).

One key issue for this literature review is a distinction between 'improving teachers' and 'improving teaching' – a distinction made in Goe's (2007) and in Zammit's (2007) research syntheses. Zammit et al. (2007) argued that quality teaching involves a dynamic, contextualised interplay between teacher attributes and capabilities, and teacher professional practice.

Other researchers identified what is also, in effect, a mix of teacher attributes and professional practice. Dinham (2002), for example, focused on teacher attributes and practices such as:

- high level of knowledge;
- high aspirations for students' learning;
- rich repertoire of skills, methods and approaches;
- detailed understanding of the context in which they are working; and
- great capacity for engagement in professional learning.

Similarly, in the American context, Darling-Hammond (2006) identified the following qualities that contribute to teacher effectiveness. These were:

- strong general intelligence and verbal ability that helps teachers organise and explain ideas, as well as observe and think diagnostically;
- knowledge of how to teach others in a subject (content pedagogy), in particular how to use hands-on learning techniques (e.g., laboratory work in science) and how to develop higher-order thinking skills;
- an understanding of learners and their learning and development — including how to assess and scaffold learning, how to support students who have learning differences or

difficulties, and how to support the learning of language and content for those not proficient in the language of instruction; and

- adaptive expertise that allows teachers to make judgments about what is likely to work in a given context in response to students' needs.

Nevertheless, the distinction between practice on the one hand, and attributes, capabilities and capacities on the other, needs to be recognised. The focus on the 'quality' of the person and of the teacher – a trend particularly in American research (see Auguste et al., 2010; Darling-Hammond, 2000, 2010; Gallagher, 2002; Goldhaber & Anthony, 2003; Leigh & Mead, 2005; OECD, 2005; Presley et al., 2005; Zammit et al., 2007) – has dwelt on the relationship between effectiveness, and certain aspects of the person as a teacher and of the teaching workforce. This includes:

- qualifications (in the American context, teachers can be placed in classrooms while still not qualified and this impacts particularly on low SES communities – see below, this Section);
- years of experience;
- the quality of intake into preservice teacher education and the nature of that education;
- content knowledge; and
- academic proficiency in general.

In Australia, aspects of a list such as this need to be nuanced and contextualised. Through (recent and historical) state and national teacher registration protocols, unqualified teachers are not employed. In addition, centralised staffing systems within some states would seek to ensure that, ideally, teacher 'quality' is not dependent on the SES of a community. Nevertheless, National Partnership on Improving Teacher *Quality* explicitly recognises that some schools are 'hard-to-staff', and these are usually located in low SES and/or remote communities. Also acknowledged is that these schools can have a preponderance of less experienced teachers or – in the secondary school particularly – teachers teaching outside of their subject area, due to supply shortages of teachers in particular subjects.

The 'indicators' of *teacher* quality most relevant to the Australian system from a list such as the one above could, therefore, include:

- intake into preservice teacher education and the nature of that education;
- appropriateness of qualifications for teaching specific curriculum areas;
- years of experience; and
- nature of teacher induction and professional development.

Almost all of these indicators are taken up directly in the whole suite of National Partnership programs, some, in particular, in the National Partnership on Improving Teacher Quality, with its reform agenda based the full employment sequence of: *attract, train, recruit, develop, retain*. The ITQ NP Agreement (see New South Wales Smarter Schools Partnerships, 2010) is designed to improve teacher and school leader quality to sustain a high quality-teaching workforce in Australia.

Any review of literature on improving teacher quality needs to begin by acknowledging that the question of the difference made to student outcomes by the quality of the teacher or the quality of teaching is problematic in the educational research literature. In particular, the role played by socioeconomic status (SES) on student performance is hugely significant (see Erebus International, 2005; Holmes-Smith, 2006; OECD, 2010a, 2010b; Perry, 2008; Robinson, 2009; Zammit et al., 2007).

Making a difference to student outcomes in education – in particular, closing the equity gap – is not only a question of ‘improving’ the teaching profession. Closing the equity gap in education – to continue with this example – requires public policy action on poverty generally and on educational inequity specifically, such as through funding models.

Nevertheless, much work has shown the crucial and central importance of teachers and teaching in student outcomes. There is an extensive literature quantifying the differences made to student outcomes by teachers (a small selection includes, for example: Aaronson et al., 2007; Accomplished California Teachers, 2010, p. 11; Creemers, 1996; Darling-Hammond, 2006, pp. 10ff; Hanushek, 2004; Hattie, 2003, 2009; Leigh, 2010; Nye et al., 2004; Rockoff, 2004; Rowe, 2003).

Most of this quantitative research is circumspect about its claims on the effect sizes attributable to teachers (see also Heck, 2009). While some researchers argued that

the quality of teaching and learning provision are by far the most salient influences on students’ cognitive, affective, and behavioural outcomes of schooling – regardless of their ... backgrounds. (Rowe, 2003, p. 15)

Other literature, which advocated for the importance of teachers on student outcomes (such as Jensen, 2010b, p. 8; Jensen & Reichl, 2011, pp. 3, 6; Koppich, 2004; Stewart, 2011, pp. 4-6), is careful to qualify this notion by reference to teachers as the most vital *in-school* influence (Auguste et al., 2010, p. 5; Dinham et al., 2008; Gallagher, 2002, p. 2; Jensen, 2010a, p. 12; Jensen, 2010b, p. 8; Jensen & Reichl, 2011, p. 6; Leigh & Mead, 2005, p. 1, p. 11; MET Project, 2012, p. 1; Stewart, 2011, p. 4).

This question of the respective influences of SES and teacher quality becomes particularly urgent when one focuses on students from low SES backgrounds. A number of researchers of the American context make the point – and quantify, especially from student test results – that it is disadvantaged students who most suffer from ‘lower quality’ teachers (i.e., not fully qualified and/or without a background in particular content areas, and with little experience – see Accomplished California Teachers, 2010, p. 11; Auguste et al., 2010, p. 11; Darling-Hammond, 2010; Leigh & Mead, 2005; Presley et al., 2005; Robinson, 2009, p. 30).

At the same time, teachers have been shown across nations to make a positive difference specifically for students who live in poverty (Baxter & Sawyer, 2006; Darling-Hammond, 2010; Dinham & Sawyer, 2004; Fair Go Project Team, 2006; Haberman, 1995, 2005; Hayes et al., 2006; Munns, 2007; Munns et al., 2008, 2011, 2013.)

Rather than relegating either SES or teacher quality to the role of second-order influence, it might be far more useful to think of the issues of both ameliorating SES through public policy and developing teacher/teaching quality as each could be considered ‘necessary but not sufficient’ if treated in isolation. The National Partnership on Improving Teacher Quality acknowledges and prioritises the difference that teachers make to students.

2.3 Defining and evaluating ‘teacher quality’

The literature addressing *teacher* quality lists the following as some of the relevant teacher attributes based on alignment with student outcomes. These are:

- years of experience (Goe, 2007; Leigh, 2010; Presley et al., 2005; Robinson, 2009);
- the nature of preservice teacher education (Presley et al., 2005; Robinson, 2009);

- subject content expertise (Dinham et al., 2008; Leigh & Mead, 2005; OECD, 2009; Presley et al., 2005; Robinson, 2009);
- pedagogical expertise (Presley et al., 2005), especially expertise in the pedagogy of a specific discipline or grade level (Darling-Hammond, 2000, 2007; Dinham et al., 2008; Goe, 2007; Leigh & Mead, 2005; OECD, 2009; Zammit et al., 2007);
- level of teacher certification (Presley et al., 2005; Robinson, 2009; Zammit et al., 2007, pp. 17-18); and
- a teacher's intellectual and verbal skills, including scores on a number of systemic tests (Darling-Hammond, 2007; Leigh & Mead, 2005; Presley et al., 2005; Robinson, 2009).

Assessment and evaluation of teachers are prominent issues in the literature defining *teacher* and *teaching* quality. In particular: How can we evaluate 'quality'?

There is a literature around what could constitute a meaningful set of evaluation criteria/protocols. The Accomplished California Teachers forum, for example, argued for the following principles to govern the development of teacher quality evaluation standards.

- Teacher evaluation should be based on professional standards (see also Dinham et al., 2008; Watson, 2005).
- Teacher evaluation should include performance assessments.
- Evaluations should include teachers' self- and peer-assessments or evidence-based portfolios that link teacher's instructional practice to student achievement.
- Evaluation should be frequent and conducted by expert evaluators.
- Evaluation should be accompanied by useful feedback, connected to professional development opportunities (Accomplished California Teachers, 2010, pp. 15-16; see also Association for Teacher Education in Europe (ATEE, 2006, pp. 5-8)).

Among these accomplished Californian teachers, the National Board for Professional Teaching Standards (NBPTS) is regarded as a good model for the process of evaluation, although the degree to which Board certified teachers have quantifiably stronger learning outcomes across the country is the subject of some debate (Darling-Hammond, 2010, pp. 219ff; Dinham et al., 2008; Watson, 2005; McCaffrey & Rivkin, 2007).

Stewart (2011, pp. 18-19) summarised the most common forms of teacher evaluation. His list included:

- qualifications, including years of experience and professional development;
- pedagogical skill; and
- measures of effectiveness, based on student outcomes and teacher knowledge of their field.

Jensen (2010b) claimed that Australian teachers want a system of evaluating teacher effectiveness, since the most effective teachers receive no recognition, and improvement and innovation in teaching goes unnoticed and unrewarded. Australian teachers are said to want evaluation systems that are meaningful and that have consequences – including higher pay for advanced competence and removal of poor teachers from the profession (Jensen, 2010b, pp. 13-17). Frequent feedback about their work, argued Jensen, aligns with innovative teaching practices. Further, the emphasis on evaluation of particular aspects of teaching in evaluation creates improvements in the quality of teaching in these areas (Jensen, 2010b, pp. 23-24).

It is worth dwelling at some length on the OECD coverage of this issue of teacher evaluation, which examines both the history and the current practice across the OECD (Schleicher, 2011). Schleicher traced the move from evaluation-as-accountability to evaluation-as-improvement-

and-accountability. Accompanying this shift is a move to focusing on student learning. The credibility of evaluation for the profession necessitates teacher involvement in designing evaluation. The OECD countries have a range of approaches – from structured government-mandated performance management systems such as used in Singapore, to school-based systems relying on self- and peer-appraisal, such as used in Finland.

Denmark's system (voted for by 94% of teachers) mainly relies on school leaders being in classrooms regularly, discussing teaching directly with teachers. Ontario evaluates on sixteen competencies set by a professional college and managed by teachers and principals. New teachers are reviewed twice a year and experienced teachers once every five years, but all teachers have annual learning plans.

Some countries, such as Norway and Japan, place great emphasis on the school itself as the unit of evaluation. In these two countries, great emphasis is placed on teachers working collaboratively to improve performance – a point also emphasised by the Accomplished California teachers (2010, p. 1). Schleicher (2011, pp. 40-41) reported that key issues in the OECD work included:

- balancing teacher and school evaluations;
- defining quality and criteria to be used;
- training for those conducting the evaluations;
- protecting against discrimination;
- the relationship to compensation; and
- the dangers of distorting an education system by relying on narrow measures of effectiveness.

Across the OECD, teachers are judged on a range of criteria, such as:

- teacher quality measures: qualifications, including teaching credentials, years of service, degrees, certifications and other relevant professional development; their knowledge of their field and pedagogical practice;
- *teaching* quality measures: how teachers operate in the classroom setting, including attitudes, expectations and strategies, methods and actions; and
- measures of effectiveness, based on an assessment of the degree to which teachers contribute to students' learning outcomes.

Evaluation instruments (Bertani & Stoelinga, 2012; Leigh & Mead, 2005; Schleicher, 2011, pp. 41-42) can include:

- scores of standardised student assessments;
- classroom observations;
- student-generated ratings;
- peer ratings, school principal and/or administrator ratings;
- self-evaluations;
- teacher interviews and portfolios;
- parental ratings; and
- competence-based tests.

In the U.S., NBPTS certification (CAESL, 2004; MET project, 2012; Schleicher, 2011, p. 47) uses ten assessments over a period of more than a year, including:

- portfolios of student work;
- videos of classroom practices;
- examples of impact on student learning;

- review by peers;
- expert evaluations; and
- assessments of subject-matter knowledge.

In the Australian context Jensen (2011, p. 9) listed moves towards feedback to teachers that include:

- peer observation and collaboration;
- direct observation of teaching;
- student surveys and feedback;
- 360 degree feedback;
- self-assessment;
- parent surveys; and
- feedback and external observation.

The most controversial area of defining and evaluating teacher quality is that of linking teacher evaluation to student outcomes – especially if bonuses/salaries are linked to student performance outcomes. Again, there is specific advocacy around this linkage (Gallagher, 2002; Jensen, 2011; Leigh & Mead, 2005; National Council on Teacher Quality, 2011). Much literature on this advocates value-added test scores as the central plank in any linkage of such scores to teacher evaluation (CAESL, 2004; Dinham et al., 2008; Leigh, 2010; Leigh & Mead, 2005).

Goe (2007) discussed the many problems with using student test value-added scores as a measure of teaching effectiveness, including incomplete data and confounding influences, including class composition and peer effects. As a whole, Goe’s synthesis shows a strong consensus that certification for teaching Mathematics matters.

Apart from the Mathematics example, Goe’s research synthesis found no convincing conclusions about which teacher qualifications, characteristics or practices contributed to differences in teacher effectiveness. The clear finding on Mathematics teaching suggests a need for tighter regulation (in the U.S.) for entry into Mathematics teaching, but this clashes with the supply of such teachers – a situation also pertaining in Australia.

In terms of teaching experience, the findings suggest the continued need to ensure that the least experienced teachers not be assigned disproportionately to the least advantaged schools. Goe discussed the problem of comparing teaching contexts. She suggested that new key questions could be asked of challenging contexts, namely: Within a given context – say, an at-risk urban school – what are the qualifications and characteristics associated with teachers who are effective at producing student achievement? What are the practices that effective teachers in at-risk schools perform that ensure high levels of student learning?

Munns et al. (2013) attempted to answer the latter question in the Australian context. CAESL (2004) also advocated the combination of value-added scores with other forms of evaluation, such as observations of actual classroom teaching and examination of student work.

Berliner (2005, 2012), however, led a literature that is very sceptical of value-added assessments, built around standardised tests, as a measure of teacher quality on a number of grounds, namely, they are not consistently reliable, and they can have adverse effects on both the curriculum and school culture. Specifically, Berliner identified the following issues:

- lack of instructional sensitivity of test items on standardised tests;
- lack of scales that can capture growth across years;
- extensive year-to-year and course-to-course reliability issues that may be impossible to fix;

- implausibility of specifying the myriad variables that affect teacher classroom performance;
- rapid response of teachers to game the system by choosing students who grow the most in achievement, while avoiding the students that do not grow as well;
- increase in test preparation and the loss of genuine instructional time;
- tacit promotion of cheating;
- breakdown of a collective culture in schools as individualism is rewarded; and
- lack of information that can be used for formative purposes, so that teachers could improve.

2.4 Steps for improving teacher quality

The next step in considering this issue of teacher/teaching quality is a consideration of the steps that researchers advocate for improvement. The first issue – already touched on briefly – concerns the development of teaching standards (Accomplished California Teachers, 2010; Watson 2005; Zammit et al., 2007).

Ongoing mechanisms for improving teacher quality which are advocated in the literature included:

- focusing on the quality of applicants to the teaching profession by making entry into teacher education highly selective (Auguste et al., 2010; Dinham et al., 2008; Jensen, 2010b, p. 10; Jensen, 2011, p. 7; Jensen, 2012, p. 11; Sahlberg, 2011);
- focusing on the quality of teachers' initial education and training (Darling-Hammond, 2000a, 2010; Jensen, 2010b, p. 10; Jensen, 2012, p. 11; Jensen et al., 2011, p. 7; Sahlberg, 2011) and its accreditation (Dinham et al., 2008) and its cost to the individual (Auguste et al., 2010, p. 24; Sahlberg, 2011);
- appraising and providing feedback to improve teachers once they enter the profession (Darling-Hammond, 2010; Dinham et al., 2008; Jensen, 2010b, p. 10; Jensen, 2012, pp. 11-12; Jensen et al., 2011, pp. 6-7);
- recognising and rewarding effective teachers (Dinham et al., 2008; Jensen, 2010b, p. 10; Jensen, 2012, p. 12; Jensen et al., 2011, p. 7); and
- dismissing ineffective teachers who have been unable to increase their effectiveness through improvement programs (Dinham et al., 2008; Jensen, 2010b, p. 10; Jensen et al., 2011, p. 7).

The national adoption of reforms, such as being highly selective about entry into teacher education, requires a number of systemic reforms. Agreement and support from teachers and trust between government and the profession are also essential (Sahlberg, 2011; Stewart, 2011, p. 23).

Systems reforms (Auguste et al., 2010; Darling-Hammond, 2010; Jensen, 2012, Sahlberg, 2011; Stewart, 2011) that are regarded as successful, based on student results internationally have included:

- recruiting the best graduates into initial teacher education (Singapore, Finland, South Korea);
- paid initial teacher education (Singapore, Finland);
- high initial salaries and retention bonuses (Singapore); mentoring (Singapore, Finland) viewing teachers as researchers (Shanghai, Finland); classroom observations among peers (East Asia);
- promoting effective teachers, but keeping them in classrooms (East Asia);
- curriculum and assessment reform (Hong Kong);

- better teaching resources and teacher professional development and reduced teaching hours (Hong Kong Finland);
- reformed career structures (Singapore); attractive teaching conditions such as professional autonomy (Finland); and
- career path reform (Singapore).

Ingvarson and Hattie argued that the transformative agenda is linked to the “*growing recognition that the quality of teaching and educational reform is dependent on new career structures for teachers, as teachers*” (2008, p.2). Mourshed et al. (2010) took a differentiated approach to system reform, which included a focus on teachers. What ‘improved’ school systems do in terms of systemic reform and teacher quality depends on their starting point. Systems moving from

- ‘poor’ to ‘fair’ include scaffolding for teacher improvement among their suite of changes;
- ‘good’ systems becoming ‘great’ focus on raising the calibre of the teacher; and
- ‘great’ systems becoming ‘excellent’ see the need to allow strong teacher autonomy in curriculum design and, in particular, much peer collaboration in the improvement of pedagogy.

Teacher salaries are also an important factor because these reflect the value that a society places on teaching (Dinham et al., 2008). As Dinham et al. (2008) argued, current teachers may not have entered the profession for salary reasons, but salaries and the perception of teaching as low status do keep very able graduates out of the profession.

This work is echoed in other research (see Auguste et al., 2010, p. 6). Strategies for attracting higher-achieving graduates into the profession include such salary considerations, full teacher education scholarships and performance incentives. The value of the latter is highly disputed – it is part of the fabric of education in Singapore, for example, but teachers in Finland explicitly rejected this idea (Auguste et al., 2010; Sahlberg, 2011).

Auguste et al.’s (2010) advice for American reform in the area of attracting ‘top 1/3’ graduates included:

- increased salaries;
- better working conditions;
- free teacher education for ‘top 1/3’ students;
- performance bonuses; and
- compensation for teaching in poorer areas.

The latter two points were also advocated by Leigh and Mead (2005, p. 14) and Presley et al., (2005, p. 3).

Uniform pay rates, these researchers argued, encourage teachers to seek out the ‘best’ working conditions, which are rarely in the most disadvantaged schools:

teachers usually take advantage of a competitive labor market to seek out what they perceive to be supportive teaching opportunities—and this often means that less-poor, less-intensely minority schools can attract better teachers. This sorting process takes place even within districts, and leaves the most disadvantaged schools with the fewest opportunities to select the most capable teachers—and yet the data provided in this report show that this is exactly where the effects of a stronger cadre of teachers manifest themselves most strongly. (Presley et al., 2005, p. 3)

Presley et al. (2005, p. 3) advocated a number of systemic reforms to address this imbalance in addition to financial incentives to attract teachers to high poverty schools. These included:

- community and state funding for high poverty schools;
- a strong learning culture at district and school leadership levels;
- emphasis on strong content expertise in teacher education;
- in-service support; and
- reform of hiring and seniority policies.

A compelling intervention in the teacher salary/performance incentives debate is that which sees teachers' work not as the work of the 'lone hero', but of 'great teaching as the collective work of professional communities of teachers' (Accomplished California Teachers, 2010, p. 1). This view – which cuts across any notion of teachers competing for performance bonuses – is supported by other work focused on effective pedagogy (Pegg et al., 2007; Sawyer et al., 2007).

Darling-Hammond talked of 'the communitarian culture of teaching' (2010, p. 319) and, as with Presley et al.'s (2005) emphasis on a strong learning culture at district and school leadership levels, Darling-Hammond (2010, p. 321) agreed that teachers seek out supportive learning environments even over higher salaries:

Teachers are primarily attracted by principals who are good instructional leaders, by like-minded colleagues who are committed to the same goals, by having the instructional materials they need readily available, and by having learning supports that enable them to be efficacious ... almost 80% of teachers would choose to teach in a school where administrators supported them, as opposed to only about 20% at one where there were significantly higher salaries.

2.5 Preservice teacher education

As noted in the previous Section, initial teacher education is regarded as a key component of improving teacher quality. In this Section, issues that researchers have put forward about the nature of initial teacher education are reviewed.

Overall, Darling-Hammond (2010, pp. 209ff) argued, strong teacher education should result in significantly greater use of strategies that produce higher-order learning and that respond to students' experiences, needs and learning approaches. Australian Alan Reid argued in 2001 that the necessary components of teacher education ought to include producing teachers who:

- can work across established / traditional educational boundaries;
- can integrate knowledge across traditional discipline boundaries;
- are aware of the broad educational context, and not just of their area of focus;
- can adapt to and shape change;
- can work powerfully with diversity; and
- are flexible, creative, politically aware and committed to goals of social justice in and through education.

Among his list (Reid, 2001, pp. 44-45) of what teacher education program themselves should model were:

- using a diverse range of teaching models (exposition, problem-based teaching, enquiry approaches, etc.);
- encouraging habits of independent and collaborative learning;
- modelling what it means to enquire into educational practice; and

- sharing the processes and outcomes of enquiry into teaching with preservice teachers.

Reid's favoured model – at that stage about to be introduced at his university – was one that was arranged around the concept of enquiry into educational practice. Each year, preservice teachers were to be placed in an educational setting to work on a project, which had been identified as an issue/problem/dilemma within a given school setting. Preservice teachers were to gather data and draw upon the range of theoretical perspectives presented in university subjects, which could then be related to the project (Reid, 2001, pp. 44-45).

Inquiry-based teacher education involving the conduct of research projects has become a consistent theme in international writing about teacher education (Darling-Hammond, 2006, 2010; Rasmussen & Bayer, 2011; Schleicher, 2011, p. 20; Stewart, 2011, p. 11). Sahlberg (2011) saw this aspect of teacher education in Finland – incorporating a Master's degree thesis – as a key component in what he argued is the important contribution of teacher preparation in that country to its educational success. Finland is the oft-quoted benchmark for this aspect of teacher education.

The PACT Process for beginning teachers in California – and endorsed by Accomplished Teachers – requires preservice teachers to analyse and reflect on recorded sessions of themselves teaching, collect and analyse evidence of student learning, and project what they would change (Accomplished California Teachers, 2010, p. 13). This is a scaled-down version of research being central to preservice teacher education. Darling-Hammond (2006) summarised the knowledge base of 'powerful teacher education' as focusing on:

- knowledge of learners and how they learn and develop within social contexts;
- conceptions of curriculum content and goals – understanding of the subject matter and skills to be taught in light of the social purposes of education; and
- understanding of teaching in light of the content and learners to be taught, as informed by assessment and supported by productive classroom environments.

Other favoured practices (Radford, 2011; Sutherland et al, 2005; Schleicher, 2011, pp. 19ff; Watson, 2005; Zeichner, 2010) as part of preservice teacher education included:

- stronger relationships between Schools of Education and other relevant disciplines within universities;
- more time on professional experience; and
- closer links between preservice teacher education providers and schools.

Genuinely collaborative partnerships may be difficult to achieve, but are regarded as worth the ongoing effort (Peel et al., 2002). Close school-university relationships and the centrality of professional experience to initial teacher education are recurring themes in the work of Darling-Hammond (2006, pp. 161-163), who lists as the core components of (identified) 'powerful' programs the following (Darling-Hammond, 2006, 2007a):

- a common, clear vision of good teaching permeating all course-work and clinical experiences;
- well-defined standards of practice and performance used to guide the design and assessment of course work and clinical work;
- curriculum grounded in knowledge of child and adolescent development, learning, social contexts and subject-matter pedagogy, and assessment, taught in the context of practice;
- extended clinical experiences (at least thirty weeks) that are closely interwoven with simultaneous coursework and carefully mentored;

- explicit strategies to help students (1) confront their own deep-seated beliefs and assumptions about learning and students and (2) learn about the experiences of people different from their own;
- strong relationships, common knowledge and shared beliefs between universities and schools, which also share standards of good teaching consistent across courses and clinical work; and
- use of case-study methods, teacher research, performance assessments, and portfolio examinations that relate teachers' learning to classroom practice.

2.6 Induction and mentoring into the profession and continued professional learning

Following initial teacher education, the systems of induction into the profession and high quality mentoring are regarded as also central to improving teacher quality. There is some skepticism in relation to the efficacy of induction programs in the American literature (Shockley et al., 2013; Wang et al., 2008:). However, a number of countries operate induction systems for one or two years during which the beginning teacher typically receives a reduced workload, mentoring by accomplished teachers, and continued formal instruction (Ramsey, 2000; Schleicher, 2011, p. 25).

Jensen (2012, pp. 23-25) regarded Shanghai as the 'gold standard' on mentoring. Shanghai's system included:

- frequent classroom observation with feedback focusing on lesson planning;
- subject specific pedagogy; and
- classroom management and research skills.

Teachers also join research groups, which identify a particular aspect of learning, examine theory and evidence, and then trial different teaching practices drawing on their findings. Teacher collaboration is key to this approach. Classroom observation is part of the implementation and teachers are also trained in observation. Similar processes are used in Singapore and South Korea (Darling-Hammond, 2010, pp. 173ff).

The characteristics of effective ongoing professional development after entry to the profession that are advocated in the literature (Darling-Hammond, 2010, pp. 226ff; Sahlberg, 2011, pp. 90ff; Schleicher, 2011, p. 25; Wong, 2004; Zammit et al., 2007, p. 15) include:

- grounding professional development in the tasks, questions and problems of actual curriculum and pedagogical practice, including student learning outcomes (see also Boucher & McRae, 2001; Watson, 2005);
- involving teachers in learning activities that are similar to those they will use with their students;
- encouraging the development of teachers' learning communities (see Lieberman, 2000);
- being linked with appraisal and feedback practices and school evaluation;
- using both inquiry and group-based approaches, especially in the core areas of curriculum and assessment; and
- giving teachers worthwhile release time from classroom teaching to engage in professional development, mentoring and network building in relation to pedagogy.

2.7 Conclusion and implications

As stated at the beginning of this literature review, search terms referring to the specific details of the *Improving Teacher Quality National Partnership* (COAG, 2009) – Centres of Excellence, Highly Accomplished teachers, Paraprofessionals, etc. – yielded very diverse results. The more general terms such as ‘Teacher quality’ and ‘Teaching quality’ gave more focused results. If one returns to the outcomes of the *Improving Teacher Quality National Partnership*, and particularly to the longer-term foci associated with these outcomes, it can be seen how these largely translate into the sub-headings used in the literature review.

The relationship between SES and outcomes, and between teacher quality and outcomes are presented in this review as a question of not addressing each relationship in isolation. Policy on teacher quality and policy on equity are argued as necessary but not sufficient if treated in isolation. The *Improving Teacher Quality National Partnership* prioritises the difference that teachers make to students as its particular brief within this policy context.

The relationship of the outcomes and foci of the *Improving Teacher Quality National Partnership* to the international literature on ‘Teacher Quality’ and ‘Teaching Quality’ is clear. The focus on improving teacher quality is an international focus. A focus on teacher capacities and attributes is generally linked with the effectiveness of teacher practice and these two areas need to be developed in tandem.

Indicators of *teacher* quality that are reflected in the international literature and that readily relate to the Australian system included:

- intake into preservice teacher education and the nature of that education;
- the appropriateness of qualifications for teaching specific curriculum areas;
- years of experience; and
- the nature of teacher induction and professional development.

Teacher quality in the literature focused on areas such as:

- the nature of the intake into teacher education;
- the nature of preservice teacher education;
- subject content expertise;
- pedagogical expertise especially expertise in the pedagogy of a specific discipline or grade level; and
- teacher certification and years of experience.

Alongside these, the mechanisms for improving quality included:

- the ‘quality’ of applicants to the teaching profession;
- the quality of teachers’ initial education through accreditation standards;
- appraising and providing feedback to improve teachers once they enter the profession; and
- recognising and rewarding effective teachers.

The National Partnership themes of *attract, train, recruit, develop, retain* are focused clearly on these areas. The development of national standards for teacher education, for example, sit alongside processes such as creating Centres for Excellence and resourcing these with Highly Accomplished Teachers who lead a focus on pedagogy in schools and who develop relationships

with universities around preservice teacher education. As a mix, these are reflected in the themes of *attract, train, recruit, develop, retain*⁵.

⁵ Some are not able to be addressed by this Partnership Agreement – for example, the intake into teacher education.

3 Evaluation Context

3.1 Introduction

This document reports on the evaluation of reforms implemented in selected NSW schools as part of the *National Partnership Agreement on Improving Teacher Quality* (ITQ NP) (COAG, 2009). The ITQ NP Agreement was designed to improve teacher and school leader quality to sustain a quality-teaching workforce. It aimed to deliver system-wide reforms targeting critical points in the workforce progression to attract, train, place, develop and retain quality teachers and leaders in schools and classrooms. The outcomes identified in the Partnership Agreement were:

- (a) attracting the best entrants to teaching, including mid-career entrants;
- (b) more effectively training principals, teachers and school leaders for their roles and the school environment;
- (c) placing teachers and principals in schools to minimise skill shortages and enhance retention;
- (d) developing teachers and school leaders to enhance their skills and knowledge throughout their careers;
- (e) retaining and rewarding quality principals, teachers and school leaders; and
- (f) improving the quality and availability of teacher workforce data.

Longer-term foci associated with these outcomes include:

- (a) new professional standards to underpin national reforms;
- (b) recognition and reward for quality teaching;
- (c) a framework to guide professional learning for principals, teachers and school leaders;
- (d) national accreditation of preservice teacher education courses;
- (e) national consistency in teacher registration;
- (f) national consistency in accreditation/certification of Accomplished and Leading Teachers;
- (g) improved mobility of the Australian teaching workforce;
- (h) joint engagement with higher education to provide improved preservice teacher education; new pathways into teaching; and data collection to inform continuing reform action and workforce planning;
- (i) improved performance management in schools for teachers and school leaders; and
- (j) enhanced school-based teacher quality reforms.

The Improving Teacher Quality reform agenda in NSW involved government, Catholic and independent schools. Broadly, the initiatives pursued were focused on the:

- establishment of schools as Centres for Excellence (C4Es);
- employment of Highly Accomplished Teachers (HATs or equivalent) in mentoring and teacher support roles;
- preparation, by school and university staff, of high-quality teacher education graduates; and
- employment of paraprofessionals.

The ways in which these initiatives were implemented and managed differed across the three schooling sectors, enabling a broad range of models to be trialled and tested. However, consistent with the strategy adopted for the broader range of evaluations being pursued as part

of the implementation of National Partnership on Improving Teacher Quality, all three sectors are collaborating on this evaluation.

The remainder of this Chapter has three Sections. The first Section, 3.2, considers the Australian context as established by all states and territories through the Council of Australia Governments. This is followed by Section 3.3 where the focus has been directed at the teacher quality policy context in New South Wales. In particular, this Chapter considers the general policy context and the two key documents that inform the policy context, namely, *Great Teaching, Inspired Learning: A Blueprint for Action* (NSW DEC, 2013) and *Local Schools, Local Decisions* (NSW DEC, 2011). The final Section, 3.4, describes the background and focus of the Evaluation of the Impact of Selected Reforms of the Improving Teacher Quality National Partnership (EISR-ITQ NP).

3.2 Implementation of ITQ NP reforms specific to the Evaluation in NSW

A wide range of reforms was established and trialled in NSW under the umbrella of the ITQ NP reform initiatives. These included facilitation reforms such as: the Australian Professional Standards for Teachers; national certification of Accomplished and Lead Teachers; nationally consistent registration of teachers; national accreditation of preservice teacher education courses; professional development and support for principals; improved performance management and continuous improvement in schools; new pathways into teaching; better pathways into teaching; improved quality and availability of teacher workforce data; ATSI education workforce pathways; quality placement; and schools nominated as C4Es.

In addition to facilitation reforms, there were a range of reward reforms that included: improved pay dispersion reforms supporting the employment of HATs (or equivalent) in C4E and Low SES Community Schools; improved reward structures for teachers and leaders who work in disadvantaged ATSI; rural/remote and hard-to-staff schools; improved support for teachers and leaders who work in disadvantaged ATSI; rural/remote and hard-to-staff schools; increased school-based decision making; and ATSI teachers' and leaders' engagement with community members.

The ITQ NP reforms being evaluated in this project comprise the effectiveness of C4Es, the impact of HATs (or equivalent) in schools funded under both the ITQ NP and Low SES National Partnerships, the contribution of paraprofessionals to improved student outcomes and the quality of professional experience being offered in C4E schools.

The contexts in which the reforms were trialled across government, Catholic and independent school sectors included not only primary and secondary schools in metropolitan and rural locations but also:

- schools working independently;
- collaborative arrangements amongst and between schools;
- mentor and support arrangements between schools; and
- virtual networks and support systems.

3.2.1 Centres for Excellence (C4Es)

A central objective of the establishment of the C4Es across all sectors was the encouragement of schools to build sustainable professional networks. However C4Es also provide a context for trialling other initiatives including HATs (or equivalent), paraprofessionals, professional experience initiatives and stronger relationships between schools and universities.

In the Government sector, two tranches of schools were funded as C4Es through the National Partnership to operate in a hub and spoke model initially for two years with 13 schools

commencing in 2010 and 22 schools commencing in 2011. In addition to programmatic funding, all government school C4Es were allocated a HAT (or equivalent) position and a 1.0 FTE paraprofessional position for the two years of planned program operation.

In 2012, funding for the first tranche of 13 schools was extended by the NSW Government to enable them to participate in a Transition Year, to refine the focus on those activities that have proved to have had the greatest impact on strengthening teacher quality and student outcomes. Schools were able to apply for up to \$200,000 to allocate towards additional staffing or other resources directly linked to the achievement of teacher quality outcomes.

Consequently, five schools extended their HAT position, five schools maintained full or part time paraprofessional positions, some schools created a temporary assistant principal or head teacher position, and others appointed a temporary classroom teacher to provide release for existing school executives to support the ongoing implementation of the reform initiatives.

The Department of Education and Communities reported that the *“13 Centres for Excellence participating in the transition year reported that the additional support was crucial in developing sustainable strategies that are embedded in school practice.”*

The Department reported further that qualitative evidence collected during 2012 from interviews with key personnel across the 35 C4Es indicated overwhelmingly that:

the most significant changes to come from the implementation of the C4E initiative was the demonstrable changes to professional dialogue. Professional conversations in both formal and informal settings were increasingly focused on pedagogy and professional development. Principals saw this as a significant cultural change that would support the sustainability of teacher quality initiatives beyond the explicit operation of the initiative.⁶

Within the Catholic sector, C4Es were established on a thematic basis with each diocese targeting a key strategy for improving teacher quality. The thirteen thematic C4Es included:

- Building Leadership Capacity
- Building Teacher Capacity in the Secondary School Setting
- Enhancing Oral Language
- Centre for Excellence in Science
- Collaborative Teacher Inquiry
- The Learning Exchange
- Online Education Centre
- Outside the Bell curve – Virtual Schools Centre
- Partners 4 Learning
- Professional Learning and Collaboration
- Southern Cross Catholic Vocational College
- St Augustine’s Narromine
- Growing a Sustainable Learning Centre

Thematic C4Es provided a range of strategies for improving teaching quality including collaborative teaching inquiry and professional learning opportunities with some involving virtual networks and online support.

⁶ NSW SSNP Annual Report 2012, p.21

A single C4E, the Independent Schools Centre for Excellence (ICSE), was established to provide support for independent schools. The aim of ISCE was to improve teacher quality by improving leadership and ameliorating the disadvantages of access to professional learning for teachers in regional areas and hard to staff schools. Improvement strategies focused on three areas: making professional learning more accessible, mentoring and building collegial relationships and networks.

Professional learning was made more accessible through the establishment of videoconferencing hubs and travel grants made available to regional teachers. The ISCE also offered subsidies on courses focused on deeper subject content knowledge and quality teaching.

Mentoring strengthened teaching in schools by:

- supporting teachers to improve classroom practice;
- helping teachers engage with using the Professional Teaching Standards;
- linking teachers with an experienced support network; and
- providing specific expertise.

Building Relationships projects were designed to build school capacity and sharing learning with the wider educational community.

The projects have involved a mix of university partnerships and schools developing and sharing high quality practice. Relationships fostered through the ISCE promoted the exchange of resources and expertise between schools, including access to facilities and experiences. By linking schools with high numbers of students aspiring to higher education and schools with lower rates of participation, student modelling, teacher modelling and general capacity building are enhanced. It is intended that attainment rates and participation in higher education will rise over time.⁷

3.2.2 HATs (or equivalent)

Although HATs (or equivalent) role were seen as key drivers within schools for improving teacher quality reforms, the HAT (or equivalent) position was also fundamental to pay dispersion reforms aimed at rewarding quality teaching.

The 2012 SSNP Annual Report (p.24) indicated:

As at December 2012, 256 quality teaching positions had been appointed in NSW schools across all Partnerships – 117 in government schools, 97 in the Catholic sector and 42 in the independent sector. This achievement contributes to reform by identifying, rewarding and retaining quality teachers in the classroom and provides opportunity for them to work with other staff to further improve teaching quality in schools.

The creation of additional HAT roles in NSW DEC schools directly rewards quality teachers by awarding them with a salary that positions HATs between Assistant Principals/Head Teachers and Deputy Principals on the current pay scale (based on the NSW teachers in schools and related employees award 2009).

⁷ NSW SSNP annual report 2012, p.23

3.2.2.1 HATs (or equivalent) in Government schools

In the context of this evaluation, 112 HAT (or equivalent) positions were created as two-year, temporary appointments in Government schools: 35 HAT (or equivalent) positions in C4Es and 57 in Low SES Reform Extension Initiative schools. A further 25 positions, not relevant to this evaluation, were created in DEC Low SES National Partnership schools.

HATs (or equivalent) positions in government schools were designed as classroom based carrying a 0.5 teaching load. HATS (or equivalent) were recruited through merit selection on the basis of teaching capacity and were required to have completed a preliminary assessment for Professional Accomplishment or Professional Leadership with the then NSW Institute of Teachers. The position statements included the following roles:

- working on a whole school basis to improve teaching practice through targeted data analysis;
- managing professional experience (practicum) placements; and
- leading and supporting the teaching and assessment practice of other teachers (early career and more experienced) in the school.

HATs joined their school's executive leadership team and took special responsibility for:

- outreach work to satellites of the schools in which they are located i.e. 'cluster schools';
- liaising with partner universities;
- focusing on professional practice; and
- supporting early career teachers to obtain and maintain accreditation at the Professional Competence level with NSW Institute of Teachers, as well as supporting more experienced teachers to commence accreditation at the higher levels of Professional Accomplishment or Leadership.

3.2.2.2 HATs (or equivalent) in Catholic Schools

Although variously described as Leaders of Pedagogy or Teacher Educators, HATs (or equivalent) were also appointed to Catholic schools. In 2012, there were 97 teaching positions in Catholic Schools equivalent to the HAT qualification. Although, the role of the HAT (or equivalent) varied across the Diocese, their focus was on improving teaching and learning.

HATs (or equivalent) in the independent sector were involved in work supporting New Scheme Teachers in highly disadvantaged schools, providing mentoring support to Early Career Teachers, and creating online resources for teachers in regional areas. There were 42 HATs (or equivalent) accredited at the level of Professional Accomplishment working in independent schools in 2012.

3.2.3 Paraprofessionals

All three NSW school sectors appointed paraprofessionals to schools as part of the reform initiatives to provide support within and outside the classroom. Paraprofessionals were engaged in a wide range of roles including: assisting teachers within the classroom and in the implementation of individual intervention programs; supporting the operation of specialist learning centres; providing administrative support and providing technical expertise to embed more effective use of technology in classrooms. Some 156 paraprofessionals were employed in NSW schools in 2012.

3.2.3.1 Paraprofessionals in Government schools

C4Es and low SES schools were allocated a 1.0 FTE temporary position of up to one-year duration for the appointment of a paraprofessional to support their engagement with the National Partnerships. Two broad categories of paraprofessional were appointed to government schools:

- educational paraprofessionals working under the guidance of teachers to assist in areas such as literacy and numeracy to support teaching and learning in the classroom; and
- operational paraprofessionals who work in a broader role across the school to assist in areas such as technology, professional experience placements, information and data management and co-coordinating home/school partnerships with Aboriginal communities.

Educational paraprofessionals were required to have a minimum qualification of Certificate III in Education Support (or equivalent). Principals of C4E schools were able to determine the type of paraprofessional resource needed to best meet the needs of the school.

From the beginning of 2010 until December 2012 over 275 full and part-time paraprofessional positions were appointed to National Partnership schools in the government sector. Of these, 15 per cent were appointed to roles specifically supporting Aboriginal community engagement. At the end of 2012, 97 paraprofessionals remained working in government schools.

3.2.3.2 Paraprofessionals in Catholic schools

In 2012 there were 26 paraprofessionals working in Catholic schools. A specific focus for the appointment of paraprofessionals to Catholic Schools was support for Aboriginal communities through the appointment of Aboriginal Education Workers (AEWs) and Aboriginal Education Aids/Assistants (AEAs), who were employed to support teachers and students.

The AEWs and AEAs support students by providing: one-on-one assistance; mentoring students; and building a rapport with parents to improve attendance rates of students. The AEWs also work with teachers to support teachers' knowledge of local community and ATSI protocols to bolster community engagement and student achievement.

3.2.3.3 Paraprofessionals in the Independent sector

There were 33 paraprofessionals appointed to schools across the independent sector. Of these 24 were educational, four were operational and five were solely implementing *MultiLit*. Four paraprofessionals supporting Aboriginal students in independent schools were supported to improve their qualifications.

3.2.4 Quality professional experience placements

Within the government schools, reforms aimed at improving the quality of professional experience placements were primarily focused on C4Es operating in a hub and spoke model, building on the support for the professional experience provided by HATs (or equivalent). C4Es also provided an infrastructure for developing relationships with university partnerships to enhance professional experience placements. Specific partnership initiatives include:

- A comprehensive practicum program in a rural community combining high level teaching support in the school with a community immersion program, supported by a mentor from the local community. Preservice students were placed in both hub and spoke schools within the community.
- A program operating with a regional council, which provided highly subsidised accommodation to preservice teachers selected to undertake the program.

Catholic Diocese also established a range of professional experience reform initiatives. These included the following:

- ten fourth-year teacher education students placed alongside a high-performing supervising teacher for three weeks (Lismore Diocese);
- targeted internship placements for scholarship holders (Maitland-Newcastle Diocese);
- support for preservice teachers during their practicum by a dedicated mentor as well as school and university staff (Parramatta Diocese);
- appointment of a high performing principal to a primary school and five teacher educators to work across a further six Diocesan primary schools and building the knowledge of supervising teachers for reliable assessment against the professional teaching standards (Wollongong Diocese);
- relationship development between schools and a university to support the demands of practicum and pre-service placements (Broken Bay Diocese in conjunction with Notre Dame and the Australian Catholic University).

Within the independent sector, five universities collaborated with seven independent schools on projects:

- developing strong processes for schools and universities that support the provision of quality practicum placements;
- building the knowledge of supervising teachers for reliable assessment and reporting against the Graduate Teacher Standards;
- addressing the mentoring and coaching skills of teachers supervising practicum students; and
- providing pre-service teachers with a practical knowledge bank of teaching practices that support the education of students with autism, communication and behavioural needs and to share knowledge and skills between university and school personnel on special education and teacher education.

3.3 Teacher quality context

3.3.1 National context

The Council of Australian Governments (COAG, 2009) identified five high-level educational outcomes as being essential to boosting Australia's workforce participation and productivity:

- (a) all children are engaged in and benefiting from schooling;*
 - (b) young people are meeting basic literacy and numeracy standards, and overall levels of literacy and numeracy achievement are improving;*
 - (c) schooling promotes social inclusion and reduces the educational disadvantage of children, especially Indigenous children;*
 - (d) Australian students excel by international standards; and*
 - (e) young people make a successful transition from school to work and further study.*
- (COAG, 2009, p.3).

The National Partnerships on Improving Teacher Quality were established as part of the National Education Agreement to achieve COAG's participation and productivity agenda and the *Melbourne Declaration on Educational Goals for Young Australians* (MCEETYA, 2008).

The National Partnership on Improving Teacher Quality comprised four elements. These were:

- the Literacy and Numeracy National Partnership;
- the low Socio-economic Status School Communities (low SES) National Partnership;
- the Improving Teacher Quality National Partnership; and

- the Closing the Gap National Partnership. (Note: The Closing the Gap National Partnership is relevant only to the Northern Territory.)

3.3.2 NSW context

Key documents and associated work informing the policy context for teacher quality in NSW at the time of this final report includes:

- *The Validation of the National (Australian) Professional Standards for Teachers* (Pegg, J., McPhan, G., & Mowbray, B., 2010);
- *Certification of Highly Accomplished and Lead Teachers in Australia* (AITSL, 2012);
- Cross-sectoral Impact Survey (CSIS) (ARTD Consultancy Team, 2012; 2013);
- *Great Teaching, Inspired Learning: A Blueprint for Action* (NSW DEC, 2013); and
- *Local Schools, Local Decisions* (NSW DEC, 2011).

3.3.2.1 Validation and Certification

Subsequent to the establishment of the National Partnerships, the Australian Professional Standards for Teachers (APST) have been validated and endorsed in 2011 by State and Territory Ministers. The Standards represent

... a public statement of what constitutes teacher quality ... and make explicit the elements of high-quality, effective teaching in 21st-century schools, which result in improved educational outcomes for students. (AITSL, 2011b, p.2)

This evaluation was conducted while protocols and guidelines for assessing teachers against the higher-level Standards were being trialled and evaluated.

3.3.2.2 Great Teaching, Inspired Learning: A Blueprint for Action

The initial discussion paper on *Great Teaching, Inspired Learning: A Blueprint for Action* (NSW DEC, 2013) dealt with five themes:

- *Inspired Learning*, which argued for teacher quality as the single greatest in-school influence on student outcomes;
- *initial teacher education*, which dealt with aspects of entry requirements for preservice teachers, aspects of professional experience for preservice teachers, and teacher over-supply;
- *entry to the profession*, which discussed conditions for the early years of teaching, such as mentoring, reduced teaching loads and the strategic placements of new teachers;
- *developing and maintaining professional practice*, which dealt with the maintenance of professional standards throughout a teacher's career; and
- *recognising and sharing outstanding practice*, which outlined ways in which salary progression could be tied to movement into higher career stages.

The policy developed from this initial paper is structured around four reforms with milestones: initial teacher education; entry to the profession; developing and maintaining professional practice and recognising and sharing outstanding practice. The reforms that focus on initial teacher education include:

- attracting high quality preservice teachers;
- strengthening the professional experience in partnership with universities;

- improving the evidence base around the NSW teaching workforce for entry into the profession;
- improving induction support for beginning teachers; and
- streamlining probation and accreditation processes.

The reforms focus on developing and maintaining professional practice by:

- strengthening performance management and development processes;
- improving the management of underperformance;
- recognising and sharing outstanding practice;
- moving to a standards-based career structure;
- strengthening school leadership; and
- sharing and using evidence and good practice.

3.3.2.3 Cross-sectoral Impact Survey (CSIS)

The 2011 CSIS Cross-sectoral Impact Survey (CSIS) was administered to provide a snapshot of the extent of change in key education practices occurring as a consequence of the Smarter Schools National Partnership (SSNP) reforms. The survey was administered to a range of cohorts according to their length of time of their schools participation in their SSNP.

The survey captured responses from 662 of the 936 NSW schools participating in a SSNP reform initiative. Some 4,376 individuals responded to the survey, these individual responses included responses from 393 principals, 1,331 executives and 2,652 teachers.

Two forms of data analysis were undertaken. The first comprised a descriptive report of survey responses, providing a summary of responses to each survey question. The second analysis provides an interpretive report examining the nature of the changes identified in the Descriptive report.

What follows is a report of the findings from these reports relevant to the ITQ NP Evaluation.

3.3.2.4 Key findings

The survey found that the SSNPs were successfully driving educational reform in NSW schools allowing them to build on and accelerate changes to improve their accountability, leadership, school planning, and making professional development more accessible. The report acknowledges that many of these changes had already begun prior to the school receiving funding. Nonetheless, the analysis of survey data found that educational practices at the school and individual practice level critical to achieving SSNP outcomes had moved to some extent over and above these changes already occurring in schools.

The extent of change varies:

- across the five reform areas – 1. teaching, learning and professional development, 2. management practices and accountability, 3. instructional leadership, planning and policy, 4. sector support, and 5. school/system alignment;
- among teachers, principals and executives;
- across contexts, however, certain factors appear to mediate the extent of change achieved in reform areas by individuals, and at the school level; and
- across some reform areas.

Differences between the three types of SSNPs generally reflect varying emphases on reform foci and different funding arrangements.

3.3.2.5 Findings from the descriptive report

3.3.2.5.1 Changes evident at early stages of implementation

ITQ NP and low SES schools at early stages of their participation reported moderate to large changes in the amount of time focused on teaching practices in staff meetings and that collective responsibility for teaching had strengthened. However, teachers and executives did not report the same extent of change had occurred in classroom practices.

With the exception of changes related to collaboration, ITQ NP respondents reported less change across most survey items than respondents in schools implementing other SSNP programs.

3.3.2.5.2 Changes evident after 2 years of implementation

Respondents were surveyed also after almost two years of implementing the low SES, ITQ NP and LN National Partnerships in their schools. A high proportion of respondents indicated moderate, large and very large increases in many practices and impacts of the SSNP with extent beyond the increase indicated by those surveyed during early stages of the implementation of reforms.

There were differences in the areas of changed practice amongst the responses from principals and executives, and classroom teachers. Significant proportions of principals and executives reported large positive changes in management and reporting, accountability practices, leadership capacity and practices. Classroom teachers indicated increases in the quality and availability of professional development resulting in improvements in their practice. Overall, classroom teachers saw less change than principals and executives.

Across all SSNPs, there was less change reported in terms of engagement with parents, local and Aboriginal communities, non-government organisations (NGOs), other schools and universities. Further, the extent of change varied across SSNPs with ITQ NP schools reporting higher levels of increased engagement with universities and other schools but less engagement than respondents from low SES schools with parents, NGOs and Aboriginal Communities.

3.3.2.5.3 Successful strategies, significant changes and challenges for SSNP

Principals, executives and teachers identified the following range of strategies as having been successful in their schools:

- providing professional development;
- new staffing arrangements;
- use of new programs;
- collaborative approaches; and
- use of relief funding or additional staff and scheduled meetings to provide the time to get things done.

The most commonly identified challenges were concerned with workload, time and the resources involved. Many of the challenges relate to implementation of strategies seen as successful, such as the difficulty in changing the school culture around collaboration. Other perceived challenges include administrative requirements and funding issues.

3.3.2.6 Findings from the interpretive report

3.3.2.6.1 *When change occurred and for which group of respondents*

Although principals reported initiating organisational change in their school there were differences reported in the extent of change and when the change occurs amongst principals, executives and teachers. These differences reflect the different priorities and ways of engaging in the SSNPs arising from their respective roles:

- principals appear to engage with the initiatives and change practices to a greater extent and earlier than school executives;
- the rate of change for executives and classroom teachers is more even and in smaller increments over the life of the initiatives.

3.3.2.6.2 *Shifts in educational practices critical to achieving SSNP outcomes*

Survey responses indicate that reforms directed at improving teaching practices, skills and understanding, and collaborative practices were reported to be improving the quality of teaching in schools.

The greatest positive gains for:

- Principals were in aspects of:
 - instructional leadership, i.e., arranging instructional support for individual teachers and more widely establishing and supporting mentoring; and
 - ‘external planning and policy’, which includes survey items relating to how well schools are engaging with parents, communities and other schools.
- Executives were in understanding of effective leadership including:
 - increased opportunities to apply leadership skills; and
 - greater confidence applying leadership skills were significantly associated with increases in self-rated leadership capacity.
- Classroom teachers were:
 - the growth and use of planning to meet individual student needs;
 - collaborating with other teachers and embracing collective responsibility; and
 - the increased availability of in-class support.

The gains reported for executives were smaller than those for principals and classroom teachers.

3.3.2.6.3 *Shifts in educational practices critical to achieving SSNP outcomes: where greatest gains are at the school level*

The greatest impacts of the SSNPs are improving the teaching, learning and professional development opportunities in schools and in teachers’ access to high quality professional development. Apparent gains were greatest in the early stages of implementation as professional development became more available and of higher quality, and with mentoring and in-class support becoming more available. Areas of teaching where gains continued to be apparent after two years of implementation were in planning to meet individual student needs, collaboration with other teachers, and accepting collective responsibility for teaching and learning.

Teachers, executives and principals consistently noted the association between the professional development being more available and improvements in teacher capacity. Gains in principals and executives capacity for instructional leadership were also moderately associated with greater gains in teacher capacity.

There was no relationship between increased teacher capacity and system level processes such as the use of evidence, management accountability, policy and practice and SSNP effects on sector support.

3.3.2.6.4 How contextual factors influence change in schools

There is a range of contextual factors that impact on the magnitude of the self-reported improvements in teacher capacity/skills and executive leadership capacity.

The SSNP being implemented (i.e., ITQ NP, Low SES NP or LN National Partnership) influences the magnitude of reported improvements in teacher and leadership capacity, however the strength of this influence varies with different respondent groups. The strength of reported change in teacher capacity was lowest in ITQ NP schools. The pattern of lower perceived gains was most prominent amongst responses from principals and executives from spoke schools, but amongst executives and teachers from hub schools. This was not the case for principals from hub schools.

The report hypothesises several reasons for these results. The first being that hub schools or C4E were selected because of perceived high performance in teaching and as such it is harder to see improved performance from a high base. The report suggests also that as spoke schools did not receive direct funding, respondents may not be aware that their collaboration with the hub school equates to participation in the SSNPs. Such perspectives may have impacted on the perceived relevance of the questions.

Other contextual factors that influenced the magnitude of improvements for teacher capacity were:

- the type of school;
- the teachers' years of experience;
- the location of the school; and
- ICSEA score value and type of students.

The association between perceived improvements in teacher capacity and some of these factors appear to disappear when summary variables were added suggesting that SSNPs may be an ameliorating these contextual factors.

The association between improvements in teacher capacity and years of teaching experience suggest that more experienced teachers may be coming from a higher base, meaning there is less room for improvement.

3.3.2.7 Implications for education in NSW

The report sets out the following implications for school education in NSW (p. xxii-xxiii):

- Investing in education reform can bring about improvements in schools, which can reasonably be expected to result in improved student academic performance and engagement.
- Principals are actively leading reforms. Investment in building principals' instructional leadership is associated with school improvement and increased teacher capacity.
- Investment in teacher learning and professional development is directly associated with increased teacher capacity. Mentoring and in-class support are particularly effective, and require relatively few resources.
- Future reform initiatives should recognise the time needed for reforms to achieve momentum and diffuse new practices through all levels of staff in a school.
- Providing schools with funding and flexibility in staffing arrangements can enable them to focus on professional development where it is needed most.

- At the system level, there may be more work and/or evidence needed to encourage schools to increase engagement with parents, Aboriginal and other local communities, given the potential benefits to the school and improved student outcomes.
- At the system level, more may need to be done to encourage and support collaboration with experts and other school staff outside of one's own school.

3.3.3 Local Schools, Local Decisions

Reforms arising from *Local School, Local Decisions* include:

- the ability of schools to choose the number and roles of staff and the mix of permanent and temporary staff within their budgets to best meet local needs;
- strengthened performance management and professional development for all staff linked to the school plan and professional standards;
- salary progression based on attainment of professional standards rather years of service;
- streamlined processes that enable school leaders to identify and respond swiftly to underperformance; and
- school leaders having leadership and management credentials before being eligible for leadership positions.

In addition to these documents and related policies, this Report was presented when the Commonwealth had established a Teacher Education Ministerial Advisory Group to provide advice on “how teacher education programs could be improved to better prepare new teachers with the practical skills needed for the classroom” (Australian Government Department of Education (AGDE), 2014, para. 1), i.e., with a strong focus is on teacher practice. The group's brief is to identify common components regarded as “world's best practice in teacher education with a particular focus on pedagogical approaches, subject content and professional experience (practicum)” (AGDE, 2014, para. 3).

The Commonwealth government “will consider the *Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures* [(AITSL, 2011a)] and the *Australian Professional Standards for Teachers* [(AITSL, 2011b)] as potential mechanisms to give effect to its recommendations for improvement to teacher education, as appropriate” (AGDE, 2014, para. 4). The Commonwealth has also increased funding to the Teach for Australia program in which a targeted cohort of preservice teachers – in Deakin University from 2015 – have early professional experience placements in schools which serve students from disadvantaged backgrounds.

The debate on ‘teacher quality’ has highlighted the issue of entrance qualifications into teacher education. Commonwealth Minister Pyne has rejected calls for a higher ATAR score for entry into teacher education courses (Hurst, 2014), though NSW Minister Piccoli has argued for setting minimum HSC requirements for school leavers hoping to enter teaching degrees (Tovey & McNeilage, 2013).

AITSL's policy that initial teacher education students are in the top 30% of the population for literacy and numeracy achievement currently uses (for NSW school leavers) proxy indicators of Band 5⁸ in English (Advanced and Standard), Band E3 in English (Extension 1 and 2), Band 5 in Mathematics and General Mathematics and Band E3 in Mathematics (Extension 1 and 2). Due in

⁸ In the NSW the candidature for results for most subjects are reported within six Bands with Band 6 the highest. In the extension subjects there are four achievement Bands and Band E4 is the highest.

2016, AITSL's proxy indicators are to be replaced by literacy and numeracy tests for impending teacher education graduates.

4 Research Design

4.1 Introduction

The focus of ITQ NP Evaluation was on obtaining information about the impact of reforms associated with:

- Evaluation Question 1 – establishing schools as Centres for Excellence (C4Es) and networks of schools collaborating with them;
- Evaluation Questions 2 and 3 – appointing Highly Accomplished Teachers (HATs or equivalent) to C4Es and Low Socio-economic Status School Communities National Partnership⁹ (low SES NP) schools;
- Evaluation Question 4 – appointing paraprofessionals to schools;
- Evaluation Questions 5 and 6 – improving the professional experience; and
- Evaluation Question 7 – addressing additional areas of interest related to similarities and differences across settings.

The data were subjected to both quantitative and qualitative analyses. The evidence arising from these analyses contributed to a broader evaluation framework designed to test, through triangulation of evidence, the validity and reliability of findings and conclusions.

The research design to address the Evaluation Questions involved four broad data collection tools. These were:

5. Surveys of school staffs in which there were opportunities for Likert-scale responses and written comments on selected questions.
6. Site visits to a sample of C4E schools where principals, executive staff members, HATs (or equivalent), teachers and paraprofessionals were interviewed.
7. Surveys of preservice teachers concerning their professional experience in which there were opportunities for Likert-scale responses and written comments.
8. Professional experience reports for preservice teachers from the three universities involved in the Evaluation.

This Chapter considers these aspects of the Evaluation.

4.2 Surveys of school staff

School personnel were surveyed about the range of ITQ NP initiatives implemented by schools on two occasions. The two surveys were aligned through common questions and Evaluation Themes. Each Survey comprised a suite of similar survey instruments that were customised to address the views and interests of different groups within a school, namely, principals, HATs (or equivalent), other executive members, teachers and paraprofessionals. The survey instruments were designed to be applicable across sectors concerning the interpretation and implementation of the ITQ NP objectives.

The design of the Surveys 1 and 2 also enabled descriptive and inferential aspects to be reported. The descriptive aspects of the analysis delineate the extent of the initiatives, and the views of

⁹ A sample of Low SES schools were included in the evaluation at the request of the Low SES NP representative on the Project Reference Group.

stakeholders about them. The inferential elements of the analysis put forward evidence of cause and effect.

Base-line surveys were used to ensure consistency across the suites of surveys administered to different groups of personnel involved in the ITQ NP initiatives. The base-line surveys comprised the surveys administered to Principals in Surveys 1 and 2 and questions were progressively removed to customise the various surveys for different respondent categories.

These survey instruments were used to capture the range of views of the following respondent groups or participants in the ITQ NP initiatives:

- Principals;
- School Executives;
- Highly Accomplished Teachers (HATs or equivalent) in ITQ NP schools;¹⁰
- Highly Accomplished Teachers (HATs) in DEC Low SES NP schools;
- Experienced teachers, i.e., teachers with more than 8 years of experience;
- Early Career Teachers, i.e., teachers with 3-8 years of experience;
- Graduate teachers, i.e., teachers with less than 3 years of experience; and
- Paraprofessionals.

Two guidelines were applied to the development of questions for the suites of surveys comprising Surveys 1 and 2, namely:

1. To ensure comparability between individual questions and, hence, responses across the different surveys.
2. To allow the responses from the different surveys to be easily aggregated.

Survey 2 mirrored the questions contained in Survey 1; however, it was adapted to accommodate advice received from the Project Reference Group. Consequently, it included an extended range of fixed response questions concerning factors that supported and/or hindered the establishment of collaborative networks between and within schools. These factors were identified from the free-response answers to similar questions in Survey 1. Hence, with the exception of an expanded suite of questions about networking, the second round of surveys replicated the first round of surveys.

The second stage of the survey development process involved entering the demographic information and questions from the base-line survey into the *Qualtrix* online survey platform. The base-line survey was customised to enable comparisons across and between the respondent groups.

The following strategies, which are consistent with the university ethics guidelines for the conduct of the evaluation, were used to maximise participation in the Survey.

1. The Evaluation Team distributed invitations to 347 schools to participate well before the administration of the Surveys.
2. School sector representatives notified the principals of participating schools about the pending data collection.
3. The Evaluation Team and school sector representatives sent reminder notices to schools mid-way through and towards the end of the survey period.

¹⁰ The reader is reminded from Chapter 3 that the HAT (or equivalent) positions were created in schools participating in both the ITQ NP and Low SES NP initiatives. Although the Partnerships had different intentions, the HAT (or equivalent) role was envisioned as providing support and leadership of the initiatives in schools participating in both partnerships.

The separate survey instruments were provided online to their respective audiences. Surveys 1 and 2 were each open to respondents for a six-week period.

Invitations to participate in Survey 1 were sent to Principals of all C4E and Spoke schools across the three sectors and to low SES schools employing HATs. Invitations to respond to the Survey 2 were distributed to two Survey Groups:

- Survey Group 1 – All respondents to the first round surveys were invited by email to participate in the second round surveys; and
- Survey Group 2 – Schools in the sample group that did not respond to the first round survey invitation were asked to register and to respond to the invitation to participate in the second round surveys.

Responses to the surveys were downloaded as files from the online survey platform and aggregated into a single Excel table for analysis. In addition to responses to the survey questions, the data included demographic information about each respondent, including personal information, such as their:

- age group;
- highest educational qualification;
- current accreditation status;
- information about their teaching context, including their school and current role; and
- number of years teaching within their current school and over their career.

Numbers of respondents to the two surveys by analysis subcategory (role) are summarised in Table 4.1.

Table 4.1: Responses to Surveys 1 and 2 by groups surveyed

Analysis subcategory	Survey Instrument/Group	Respondents completing Survey 1	Respondents completing Survey 2	Respondents completing Survey 1 and Survey 2
Principal/Executives	Principal	68	64	
	Executive	42	42	
	Principal/Executive subtotal	110	106	53
HATS	HAT ITQ (or equivalent)	21	25	
	HAT low SES	20	17	
	HAT (or equivalent) subtotal	41	42	24
Classroom teachers	Experienced Teacher	36	20	
	Early Career Teacher	18	5	
	Classroom teacher subtotal	54	25	11
Paraprofessional	Paraprofessional subtotal	6	4	
All responses		211	177	88

The response rates for the two surveys were low, given the numbers of teaching staff in schools involved in the ITQ NP reforms. The relatively low number of responses constrained the form of the analysis and the extent to which the data could be reliably disaggregated for analysis. Approximately 18% of Principals and approximately 16% of HATs (or equivalent) at schools involved in the initiatives responded to the surveys.

The analyses of survey responses were designed to investigate aspects of the reforms relevant to the following Evaluation Themes¹¹:

1. Centres For Excellence;
2. Highly Accomplished Teacher (Impact);
3. Highly Accomplished Teacher (Attributes);
4. Paraprofessional Role; and
5. Additional Areas of Interest.

Data from the two surveys were analysed both separately and together to investigate the impact of the reform initiatives. An important perspective in this determination is gained by capturing changes in the views of school-based personnel over the life of the ITQ NP reforms. This underpinned the inclusion of common questions within Surveys 1 and 2 in the research design.

Consequently, the data files for both rounds of surveys were examined and responses to questions not common to both surveys were removed. These modified data files were merged into a common file. This file contained the responses of all respondents to both survey rounds. The respondents were then sorted to identify those who had responded to both surveys. These data were further evaluated to identify the extent of change in responses over time.

4.3 Site visits

The research design included visits to a sample of C4E schools and a sample of schools participating in the Low SES NP by the Evaluation Team. Twenty-two one-day site visits were undertaken during which 104 interviews were conducted. Seventeen Government, five Catholic and two independent schools were included in the site visit sample frame. Sector and personnel information for completed interviews are provided in Table 4.2 and Table 4.3 respectively.

Table 4.2: Site visits: Site type and location

Sector	Site Type				Location		Total
	Primary	Secondary	K-12	Other	Metropolitan	Provincial	
Government (C4E Tranche* 1)	4	3	–	–	5	2	7
Government (C4E Tranche 2)	3	3	–	1	2	5	7
Government (Low SES)	1	1	1	–	1	2	3
Catholic	1	3	–	1	3	2	5
Independent	–	–	4	–	2	2	4
Total	9	10	5	2	13	13	26

*The term Tranche refers to two roll outs of the program. Tranche 1 occurred in 2010 when 13 schools commenced the program. Tranche 2 began in 2011 with 22 schools.

¹¹ Equivalent issues to those addressed in this Section relevant to the Professional Experience Theme are discussed in Chapters 10 and 11 of this Report.

Table 4.3: Site Visits: Personnel interviewed

Sector	Personnel Interviewed					
	Principal	Executive	HAT (or equivalent)	Teacher	Paraprofessional	Total
Government (C4E Tranche 1)	6	5	8	8	4	31
Government (C4E Tranche 2)	5	8	6	15	6	40
Government (Low SES)	3	1	3	1	–	8
Catholic	5	6	5	1	1	18
Independent	2	–	3	2	–	7
Total	21	20	25	27	11	104

The interviews were semi-structured using interview protocols based on the Evaluation Themes and associated Evaluation Questions. As an indication of the interview structure, the protocol used for Principals and School Executive is provided in Figure 4.1.

Evaluation of Selected Reforms – Improving Teacher Quality National Partnership

Site Visit Interview Questions – Principal; School Executive

Name of School:

Name of Interviewee:

Initial clarification and confirmation:

- What the Evaluation is about
- Members of the Evaluation Team
- Ultimate reporting process

1. Could you briefly describe the focus of the C4E/National Partnership initiative operating in your school?

2. Who (individuals and/or teams) in the school do you see as most responsible for implementing the initiatives?

3. Questions about the Centre for Excellence/National Partnership initiative:

How would you describe the effectiveness of the Centre for Excellence and/or National Partnership initiative in your school in the following areas?

- Improving teacher capacity
- Improving teacher quality
- Improving student performance
- Effective collaboration with other schools
- Effective relationships with universities

4. Questions about the impact of the Highly Accomplished Teacher initiative (Impact):

How do you see the HAT role, or its equivalent, as being effective in the following areas?

- Providing career progression for HATs as skilled teachers
- As a strategy for attracting and retaining HATs as skilled teachers in hard to staff schools
- Improving the capacity and effectiveness of teachers in hubs/spoke or cluster schools

<ul style="list-style-type: none"> ▪ Enhancing the capacity of teachers to utilise students attainment data ▪ Improving student performance ▪ Achieving sustainable improvements in Teaching & Learning through school planning/management <p>4a If you had the funds again would you employ a HAT or do something else?</p> <p>5. Questions about the Paraprofessional initiative (if there is one in the school):</p> <p>How do you see the paraprofessional initiative as being effective in the following areas?</p> <ul style="list-style-type: none"> ▪ Improved support for students ▪ Improved support for teachers ▪ Pathways into teaching <p>6. Questions about the Professional Experience:</p> <p>Could you outline the professional experience program at your school in terms of?</p> <ul style="list-style-type: none"> ▪ Preparation of quality graduates ▪ Associated 'costs' ▪ Structure of placement, e.g., Internships, two-week professional experience ▪ Relationship between stakeholders, e.g., your school, Teacher Education Institutions and employers <p>7. Other questions of interest – optional:</p> <ul style="list-style-type: none"> ▪ Are there any particular contextual factors that have impacted on the success or otherwise of the initiatives in your school? ▪ What do you see as the important training needs of new teachers for successful teaching (in your school; in high Aboriginal enrolment or high ESL schools; ...)? ▪ What do you consider to be the major issues that impact on the retention of (quality; maths; science) teachers in schools (challenging or otherwise)? ▪ What do you consider to be some of the key sustainability issues for the initiatives in place in your school? ▪ Is there a particular feature of the way initiatives have been implemented in your school that others might find useful – models, approaches or strategies that can be shared? <p>8. Is there anything else that you would like to add about the Centre for Excellence/National Partnership initiatives in your school?</p> <p>Were you comfortable with the structure of the interview and the questions asked?</p>
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Figure 4.1: Site visit interview protocol: Principals and school executive

When scheduling interviews, a time of 40-45 minutes was suggested. In practice, some interviews lasted for less than this time and some longer.

4.4 Professional experience

A critical aspect of the ITQ NP reforms was support for initiatives aimed at improving the quality of professional experience provided to preservice teachers. This evaluation incorporated a number of questions aimed at evaluating the impact of these initiatives. In particular,

Do Centres for Excellence prepare higher quality teacher education graduates who are better equipped and prepared to teach in NSW challenging schools?

The issues embedded in this question are multifaceted and complex. They concern judgements about the nature of the professional experience and its relationship to effective teaching throughout a teacher's career.

Notwithstanding the complexity of issues involved in defining what constitutes more effective practice and the nature of the related judgements, the time frame for this evaluation did not enable a longitudinal study of differences in the relative efficacy of teachers who undertook their professional experience in C4E and other schools. Consequently, the intent of this question was inferred to mean:

Have the teacher quality initiatives implemented by C4Es enabled them to provide higher quality professional experience for preservice teachers than schools that have not participated in the initiatives?

There are two aspects to this work. The first concerned the evaluation of professional experience reports. The second consisted of the analysis of responses to the professional experience surveys by preservice teachers and recent graduates working towards accreditation.

4.4.1 Analysis of professional experience reports

This aspect of the evaluation focused on the analysis of supervising teachers' comments in professional experience reports that provided formal feedback to preservice teachers during their professional experience placements. In particular, the focus of the analysis was to explore how supervising teachers articulate and describe professional practice against the Graduate Teacher Standards (NSWIT, 2005).

The *Professional Experience Supplementary Documentation* (NSWIT, 2009) provided universities with guidance about the form of professional experience to universities seeking accreditation of their courses. These guidelines offered a framework for universities to comment on the preservice teachers' development against the 46 Standards, grouped under seven Elements of the *Professional Teaching Standards* (NSWIT, 2005) at the Graduate Teacher career stage. This framework offered universities some latitude in the form of the preservice teacher reports to be completed by supervising teachers.

Hence, whilst all universities provide a summative commentary as part of a preservice teacher report, the structure of the reports differs across universities. For some universities, a written comment was expected against each of the individual Standards of the seven Elements of the Professional Teaching Standards (NSWIT, 2005), while other institutions provide the option for supervising teachers to either tick a box to rate achievement of an Element (or Standards) or to provide a comment on an Element (or Standards).

The quality of the professional experience provided by schools is determined, in large measure, by the extent to which supervising teachers are able to guide and support preservice teachers effectively during their professional experience. The ability of supervisors to articulate current, clear and consistent views about teaching practices is therefore important. This ability should be reflected in the formal reporting of teaching practices within the professional experience reports.

There are two aspects to the design of the evaluation of this area. First, in reports where a written comment was expected against a particular Element, the focus was directed at the correspondence of the comment and the Standard at which it elaborated. Second, in all reports provided, each summative commentary was interrogated to investigate which Standards were referenced, and whether there was a pattern of response evident within the commentary across the sample, and if so, the characteristics of the pattern.

Professional experience reports were collected for analysis from the three universities involved in the evaluation. The professional experience reports indicated the courses in which preservice

teachers were enrolled, namely postgraduate diplomas, education degrees, combined degrees and master of teaching courses.

A stratified random sample approach was adopted. The sampling frame was designed to ensure that the reports were representative of the range of courses and course stages in which preservice teachers could be enrolled and, importantly, that the reports were written by supervising teachers in a range of schools, including C4E and spoke schools.

Professional experience reports were provided by the Professional Experience Offices of each of the three universities. The 550 reports collected were de-identified during the transcription process to protect the identity of the preservice teachers to whom they referred and to conform with ethics committee application requirements.

The distribution of reports by university and course type is presented in Table 4.4. Although the form of the professional experience was not recorded, they include reports written for block experience and internship programs. They report on the outcomes of professional experience programs completed at various stages of the course.

The distribution of reports in Table 4.4 indicates that the sample includes a range of teacher preparation course types across the three institutions.

Table 4.4: Distribution of reports by university and course type

University	Postgraduate diploma	BEd/BTeach	Combined degree	MTeach	Total
University 1	70	131	51	80	332
University 2	62	50	12	16	140
University 3	–	24	–	54	78
Total	132	205	63	150	550

Reports were collected for preservice teachers that undertook professional experience in C4E schools, spoke schools and schools not participating in the initiatives. It should be noted that the distribution of reports by school sector and participation in the initiatives was a function of the quantum of reports provided by each of the Professional Experience Offices of the participating universities.

The guidelines for selecting reports across the universities were as follows:

- administrative personnel at the respective Professional Experience Offices were responsible for collecting reports to ensure that no member of the research team had direct involvement in the selection process;
- Professional Experience Office personnel were provided with a list of schools participating in ITQ NP initiatives to inform the selection of reports;
- a preference was stated for an equal number of reports to be selected from ITQ NP initiative schools and non-ITQ NP initiative schools;
- selected reports were to be representative of both preservice teachers undertaking primary and secondary courses, as well as representing a range of discipline areas for professional experience undertaken in secondary schools;
- reports were collected for professional experience undertaken during the period 2011-2013;
- reports were selected across the range of teacher preparation courses at each university; and
- a one-in-five or a one-in-ten selection process was applied when a disproportionately large number of reports were furnished for particular course(s).

Table 4.5 shows the distribution of reports by school sector and by the schools' participation in the initiatives.

Table 4.5: Distribution of reports by school sector and by the schools' participation in the reform initiatives

School Sector	C4E	Spoke School	Non participating school	Total
Catholic	32	120	108	260
Government	38	57	171	266
Independent	5	6	13	24
Total	75	183	292	550

The data show that 47% of the reports are from schools participating in the reform initiatives.

4.4.2 Professional experience survey

Invitations to participate in the survey were sent to all preservice teachers at, and recent graduates from, the participating universities.

Survey respondents were asked a range of questions about themselves (their gender and age group), the teaching for which they were being prepared (early childhood and/or primary or secondary), their course, stage of preparation and where they had or were to undertake their professional experience. Survey respondents were also asked a range of questions about their teacher preparation, including the form of the professional experience placement (block or internship) that they had or were to undertake and, in relation to the former, the nature of the feedback that they received.

The number and proportion of males and female respondents is reported by age group in Table 4.6.

Table 4.6: Respondent gender by age group

Age group	Female	% of female respondents	Male	% of male respondents	Total	% of total respondents
20 years and under	61	9.0%	8	6.6%	69	8.6%
21 - 25 years	183	27.0%	31	25.6%	214	26.8%
26 - 30 years	106	15.6%	19	15.7%	125	15.6%
31-40 years	174	25.6%	32	26.4%	206	25.8%
41 - 50 years	115	16.9%	21	17.4%	136	17.0%
Over 50 years	40	5.9%	10	8.3%	50	6.3%
Total	679	100.0%	121	100.0%	800	100.0%

Although the number of female respondents is nearly six times the number of male respondents the proportion of each by age group was similar.

The respondents were preparing to teach as early childhood, primary and/or secondary school teachers. The number and proportion of respondents preparing to teach in these settings are reported by age group in Table 4.7.

Table 4.7: Survey responses by school stage and age group

Age group	An Early Childhood Teacher (Age 0-8)	Percentage Early Childhood teacher respondents	A Primary Teacher	Percentage Primary Teacher respondents	A Secondary Teacher	Percentage Secondary Teacher respondents	Total	Percentage total respondents
20 years and under	4	5.6%	40	10.1%	25	7.8%	69	8.7%
21 - 25 years	13	18.3%	106	26.6%	94	29.4%	213	27.0%
26 - 30 years	19	26.8%	60	15.1%	43	13.4%	122	15.5%
31-40 years	19	26.8%	105	26.4%	79	24.7%	203	25.7%
41 - 50 years	10	14.1%	72	18.1%	52	16.3%	134	17.0%
Over 50 years	6	8.5%	15	3.8%	27	8.4%	48	6.1%
Total	71	100.0%	398	100.0%	320	100.0%	789	100.0%

The distributions across the age groups of respondents preparing to be primary and secondary school teachers differ from those preparing to be early childhood teachers, with there being a smaller proportion of preservice early childhood teachers in the 21-25 years group and greater proportion in the 26-30 years age group. This suggests the admission of a significantly greater proportion of mature-age entry candidates in early childhood courses.

An issue for interpretation of the responses was the extent to which respondents had participated in the professional experience. Table 4.8 reports the extent of participation in the professional experience by host-university.

Table 4.8: Survey responses by course stage and host-university

Age group	Preservice teacher (no prior professional experience)	Preservice teacher (prior professional experience)	Graduate Teacher progressing towards accreditation at PC level with NSWIT	Professional Experience Office Director/Manager (Tertiary Education Institution)	Total
University 1	162	307	83	6	558
University 2	70	87	2		159
University 3	22	23	1	1	47
Other ¹²	1	6	10	0	17
Total	255	423	96	7	781

Approximately 54% of respondents had already undertaken professional experience. Approximately 33% of respondents were yet to engage in professional experience and approximately 12% had graduated and were working towards accreditation at professional competence. There were responses from seven coordinators of the professional experience.

Over 70% of respondents were current or former students of University 1. Approximately 20% of respondents were from University 2 and 6% were from the University 3.

4.5 Data analysis plan

Three primary instruments were used in data collection: surveys, professional experience reports and semi-structured interviews. The surveys and professional experience reports enabled both

¹² Although invitations to participate in the survey were sent only to respondents with email addresses distributed by three universities participating in the evaluation, some respondents who had transferred universities also responded.

quantitative and qualitative analyses, whereas the semi-structured interviews enabled qualitative analysis only. Together, these analyses helped identify stakeholder views on a range of issues associated with the Evaluation Questions.

The following two sub-sections provide an overview of the quantitative and qualitative data analysis techniques, respectively.

4.5.1 Quantitative analysis

The quantitative analysis comprised a descriptive analysis to provide summary information in the form of frequency counts, means and standard deviations of the responses overall and of each of the groups. Inferential analysis of these data was undertaken firstly using Rasch analysis, which allows data to be expressed on an interval scale that permits the subsequent use of powerful parametric techniques for analysis. Following this, these different types of questions were separated so that questions requiring specific responses could be analysed quantitatively using SPSS statistical software.

Rasch analysis represents a breakthrough in quantitative research in the social sciences because it can reveal relationships and patterns among the data that would be masked by the use of less powerful techniques. Rasch analysis was used to develop objective scores for survey questions and respondents. These scores provide continuous variables that can be used with standard parametric constructs such as ANOVA, MANOVA and repeated measures analyses to investigate differences amongst the respondents and their responses to the survey questions, and obviate the need for the use of less powerful, non-parametric analysis of the data.

The Rasch analysis was undertaken with *QUEST* software (Adams & Toon, 1996), applying a *Partial Credit Model* (Masters, 1982) to the survey responses. The respondent scores reported by the analysis represent respondent traits or characteristics, such as their knowledge of and attitudes towards the initiatives. Question scores represent the probability that respondents will respond to a question based on their response to other questions.

QUEST uses a joint marginal maximum likelihood procedure and provides an excellent implementation of the Rasch model. *QUEST* is used extensively by the Australian Council for Educational Research (the largest research group in Education in Australia) and other Education research groups. Further, *QUEST* (and its successor, *Conquest*) have been adopted in significant Education reports by UNICEF, and the OECD uses this package in the analysis of internationally collected data in the Programme for International Student Assessment (PISA).

It has been used by SiMERR researchers for many years and it continues to be a feature of SiMERR research with the Federal Department of Foreign Affairs in Education evaluations with overseas countries. It was the quantitative basis for the foundational work by the Federal Department of Education through the Australian Institute for Teachers and School Leadership (AITSL) in the validation of the *Australian Professional Standards for Teachers* (AITSL, 2011) across every state and territory. It also provided the basis for the validation of the *Professional Teaching Standards* (NSWIT 2005). Both validation studies were conducted by SiMERR researchers.

In addition to quantitative indicators for respondent estimates and survey question estimates, the *QUEST* software reports a range of statistics that can be used to demonstrate the validity of the underlying construct and the 'fit' of individual survey questions within the Rasch model. Given the relatively small sample size, and that the surveys elicit perceptions, the following parameters were used to accept the reliability and validity of the underlying constructs:

1. respondent estimate reliability >0.7, and survey question estimate reliability >0.7;

2. infit and outfit mean scores ≈ 1.00 ; and
3. few survey questions exhibiting underfit and overfit.

The suitability of the respondent and survey question estimates produced by the software for further parametric analysis was tested to ensure:

1. respondent estimates were normally distributed; and
2. survey question estimates formed a continuous variable.

The first step in the process of developing Rasch scales was the recoding of survey questions requiring respondents to make a judgement about the initiatives in Surveys 1 and 2 and the presence/absence of a Standard in summary commentary on the Professional experience report. Responses were recoded to a numeric scale dependent upon the number of options available within each question, as indicated below.

- Yes/No questions were coded '1' for 'Yes' and '0' for 'No'.
- Questions asking respondents to select any or all options that applied were coded '1' if an option(s) was selected and '0' if an option was not selected. Responses were regarded as a 'non-response' and left blank if no judgements were made or no options were selected for particular questions. This enabled the differentiation of non-respondents from those who selected options for the particular questions.
- Questions requiring a rating on a five-point Likert-scale were recoded to '0, 1, 2, 3, 4' where '0' represented the lowest level of response and '4' represented the highest. Where respondents recorded 'NA', the survey question was not coded and left blank.

Once recoded, the question responses were uploaded into a text file for analysis. The data for the trial analysis comprised the recoded responses to all selected questions.

The investigation first sought the existence of a latent trait (an 'underlying construct') unifying the data. This occurred when reliability indices were high and the fit statistics for the data were close to the expected values.

In addition, applying the Rasch technique to specific groups of associated questions provided the potential to develop a number of subscales. There were two purposes for developing subscales. The first was to determine the meaning of the constructs, that is, to determine how they relate to the Evaluation Questions. The second purpose was to provide more measurement points for analysis of differences in responses to the survey questions.

These types of analysis provide a sense of the underlying construct being measured, namely, respondents' knowledge of, and the value they placed on, teacher quality improvement strategies as part of the ITQ NP initiatives. High respondent scores represent high levels of knowledge and valuing of teacher quality improvement strategies, whereas low respondent scores represent low levels of knowledge and valuing of teacher quality improvement strategies.

The Rasch model links *the probability of the outcome when a single person attempts a single question* (e.g., in a survey) *to the characteristics of the person and the question* (Choppin, 1983). It creates objective respondent and (survey) question scores located on a common, equidistant linear scale. This type of analysis was applied to survey questions that required respondents to make a judgement using some form of scale, such as a 5-point-Likert-scale bounded by 'strongly disagree' and 'strongly agree'. It was also used in the analysis of the summary commentary in the professional experience reports where a 2-point scale was employed.

The question and respondent estimates developed from the Rasch analysis provide a range of variables for investigating the sources of differences amongst the scores. In these cases ANOVA

and MANOVA were used to investigate and identify differences in the data that may be related to the characteristics of respondents (role, highest qualification, age, experience and prior participation in surveys) and the contexts (school sector, geolocation, school level and status of participation in the initiatives) of respondents.

Correlation analysis was used to examine the relationships between responses and the demographic characteristics of respondents. Whereas, Standard ANOVA techniques were used to identify significant differences amongst the mean responses of each of the groups surveyed and to identify difference in mean responses arising from differentiation of the data on the basis of demographic characteristic, i.e., school location, school type (primary or secondary), age group, highest qualification, and number of years the respondent has taught. In cases where the data were homogeneous, that is the null hypothesis for equal variance was accepted the relevant tests for identifying homogeneity and post hoc differences were the Levene statistic and Tukey's HSD method. Where equal variances could not be assumed the relevant tests were the Welch test of robustness of the data and the Games-Howell method for identifying post hoc differences.

The sources of difference amongst groups of respondents were also analysed using the ANOVA techniques described above. The differences amongst the responses identified by these analyses were indicative of different attitudes and perceptions of the subgroups towards the various initiatives. Ultimately, a consequence of this work is the potential to articulate what respondents know and value about improvement initiatives. Such analyses provide another method for interrogating the data to identify differences and relationships amongst and between responses.

It should be noted, however, that the number of responses to the survey presented a potential constraint to the further analysis of differences amongst the responses. A general guiding protocol that applies to the application of MANOVA techniques is that the variable subcategories being investigated should contain no fewer than 30 scores. This protocol was not achieved for a number of the respondent characteristics. This issue of small category sizes is exacerbated further if the analyses involve multiple comparisons, such as, undertaking an analysis of the difference in responses by respondent roles by (primary or secondary).

To ensure a reasonable number of responses in each subcategory, and where subcategories with few responses could logically be collapsed, the data for each variable was aggregated into two or three main subcategory groups. These data were the subject of subsequent analyses. These responses to the survey are reported by original category and the subcategories used in the analyses.

4.5.2 Overview of analyses undertaken

There were three major data collections were analysed quantitatively. These were: Survey 1 and 2 responses; the Professional Experience Reports; and the responses to the Professional Experience Survey. Two forms of analysis were undertaken in each case. The first reported on:

1. respondent characteristics, such as age group, role, highest educational qualification, teaching experience and number of years teaching in current school;
2. contextual factors, such as school sector, geolocation and the extent to which respondents' schools had participated in the reform initiatives (Hub C4E, spoke school, non participating school); and
3. responses to the survey questions.

The second analysis involved Rasch analysis of (i) survey questions that required respondents to make a judgement or decision on a Likert-scale items and (ii) the presence or absence of a

comment about Standards in the Professional experience Reports. In each case these data were coded and converted to a text file for analysis using QUEST software.

The analyses used a Partial Credit Model to determine survey question and respondent fit statistics, reliability and consistency indices, question and respondent estimates and maps showing differential item functioning. The analysis identified a strong statistical construct providing question and respondent reliability estimates in excess of 0.7 for all analyses. This indicated that the estimate scores for each analyses were reliably separated on a uni-dimensional scale.

The output files from the Rasch analysis provided a range of data, which were used to inform the evaluation. These were:

1. Survey questions demonstrating underfit and overfit. Questions demonstrating underfit represent questions for which responses are not consistent with the pattern of responses linking the great majority of items. Questions exhibiting overfit represent questions for which the response pattern is more consistent than would be expected by the model.
2. Respondent estimates which enabled analysis of the relationship between respondent estimates, the characteristics of respondent and contextual factors.
3. Differential Item Functioning (DIF) analysis was used to determine the survey questions that gave rise to the differences in respondent estimates.
4. the development of location bands defined by partitioning respondent estimates into bands defined by the following rubric:

<u>Very high:</u>	Greater than mean score plus 1.5 standard deviations
<u>High:</u>	Mean score plus 0.5 of a standard deviation to mean score plus 1.5 standard deviations
<u>Medium:</u>	Mean score plus and minus 0.5 of a standard deviation
<u>Low:</u>	Mean score minus 0.5 of a standard deviation to mean score minus 1.5 standard deviations
<u>Very Low:</u>	Less than mean score minus 1.5 standard deviations.

(Note: Each location band is one standard deviation wide.)

Analysis of the distribution of respondent estimates for groups disaggregated by role across location bands confirmed relationships between respondent estimates and role.

4.5.3 Qualitative analysis

In the case of site visit interviews, each interview was electronically recorded and transcribed for analysis, with members of the Evaluation Team using the same independent transcription service. Thematic analysis of the interview transcripts involved coding the commentary against each evaluation question.

The Evaluation Team conducted preliminary coding sessions to establish inter-rater reliability. This was an iterative process, comprising independent coding followed by comparison and discussion of codings. Coding of two sets of site visit interviews was undertaken, taking into account two considerations to address inter-coder reliability. Evaluation Team members coded:

- a transcript of an interview conducted by another member of the Evaluation Team and an interview that they had conducted; and
- entire transcripts against all Evaluation Questions.

Once inter-coder reliability was reached at the question level, further coding was carried out at the sub-question level. An iterative process of coding, comparison and shared discussion was again adopted. Once inter-coder reliability was achieved at both the question and sub-question levels, each member of the Evaluation Team then proceeded to code each interview transcript for his or her respective Evaluation Questions.

In the case of survey questions and professional experience reports, responses to questions enabling free-text responses were analysed qualitatively using nVivo software. This program enabled the survey responses to be entered as text in its table format and analysed question by question. Common themes and issues amongst the responses to each question were coded and aggregated for deeper analysis and reporting. The use of nVivo also enabled the professional experience reports to be analysed against the *Professional Teaching Standards* (NSWIT, 2005) at the Graduate Teacher Key Stages. The outputs of these qualitative analyses are reported with the quantitative findings to inform their analysis and the broader evaluation.

4.6 Synthesis Framework

In the penultimate Chapter the data from sets of Evaluation Questions are further discussed in terms of the three organising principles of structures, processes and outcomes, which address the notion of quality – the core constructs of ITQ NP initiatives. The model used was developed as an evaluative framework for the quality of healthcare (Donabedian, 1966, 1988).

Since its introduction, the Donabedian Framework has been used to measure the quality of healthcare and healthcare systems, e.g., Kunkel, Rosenqvist, and Ragnar (2007), and Gardner, Gardner, and O’Connell (2013). In this framework, quality constructs align with one of three measures, namely, structures, process and outcomes:

Structure measures in the model include the characteristics and traits of the healthcare providers, their tools and resources, and their physical and organizational work settings. Process measures include the set of activities that occur with and between the providers and patients. Outcome measures include the change in a patient’s current and future health status due to the care he or she received. (Peters, Mueller, Stoller, & Gupta, 2009)

Whilst the measures described relate directly to the healthcare context, they are equally relevant to educational stakeholders. Individual and/or institution effectiveness relate(s) to the interrelationships between each, with good organisational structures leading to improved processes, which result in better outcomes.

Structures, Processes and Outcomes are integral to a number of key documents that have informed the current focus on improvements to both teacher and school effectiveness. Hattie (2003) and Rowe (2003) have given prominence to the notion that teacher quality is a key influence on student achievement and the outcomes of schooling, and this idea has been taken up in subsequent Federal and State policy documents.

Structure measures refer to stable components of a setting or system (Fitzpatrick, 2014). In the context of the Evaluation Questions presented in this Section, structure measures include individuals, groups and organisations. Structure measures also include factors other than participants, such as school-based initiatives, school-based programs for teachers and the wider school community, policies and reporting requirements.

Process measures refer to interactions within a setting or “performance and behavior” (Kravits, McAllister, Grant, & Kirk, 2010, p.132), such as support for teachers, collaboration, mentoring, modelling, providing feedback and reflection.

Outcome measures refer to changes in settings or individuals. These changes might be at one of three levels:

- (i) transitional, e.g., learner confidence;
- (ii) end results, e.g., standardised testing scores; and
- (iii) proxies, e.g., retention data.

This work is inline with research into the characteristics of effective schools (see Rowe, 2003). Where it is seen as critical to take into account structural or contextual influences that operate within a school, such as:

- purposeful leadership;
- challenging teaching and high expectations;
- consistent teacher engagement;
- positive climate; and,
- frequent evaluation of progress.

Of interest to this Report are the complex interrelationships between inputs on the one hand, and structures, processes and outcomes on the other. Hence, within the context of the quality construct, associated Federal and State recommendations for improvement and school effectiveness modelling, use of the Donabedian Framework to evaluate quality based structures, processes and outcomes is relevant, valuable and useful.

5 Evaluation Question 1: Centre for Excellence Theme

This Chapter addresses the first Evaluation Theme, which considered C4Es. The Evaluation Questions, were:

To what extent are Centres for Excellence effective in achieving:

- a. improved teacher capacity and improved quality of teaching in hub and spoke schools (and other schools availing themselves of support from ‘virtual’ or thematic Centres for Excellence);
- b. improved student performance in both hub and spoke schools;
- c. effective application of network learning principles where schools collaborate and share; and
- d. effective relationships with partner universities?

This Chapter provides an overview of the findings from analyses of commentary provided in the on-line surveys and semi-structured interviews.

5.1 Evaluation Question 1(a): To what extent are Centres for Excellence effective in achieving improved teacher capacity and improved quality of teaching in hub and spoke schools (and other schools availing themselves of support from ‘virtual’ or thematic Centres for Excellence)?

5.1.1 Introduction to Evaluation Question 1(a)

A key aspect of the first evaluation question is the notion of improvement, both teacher improvement and teaching improvement. The following extract has been selected as a lead in to the discussion of the question for the way in which improvement is described.

A huge shift, a paradigm shift, in the way teachers think about their work, and think about their colleagues ... they no longer look at it as “This is my job, this is my classroom, these are my students, this is how I teach”. It’s about “What can we do to meet the needs of our students, and how can we build that capacity collectively?” (HAT (or equivalent), SC.16¹³, Turns 205 & 405)

In particular, this quote refers to the substantial change in the way teachers think, not only about their own work, but also about the work of their colleagues. There is also a shift in the language used, from ‘my’ to ‘we’, which is reinforced with the acknowledgement of collective capacity building, and these shifts have an underlying rationale in meeting the needs of students.

5.1.2 Findings for Evaluation Question 1(a)

Evidence available to the evaluation from surveys, site visits and the report of the Cross Sectoral Impact Study (CSIS) indicates that C4Es were successful in achieving improved teacher capacity and improved quality of teaching in hub and spoke schools (and other schools availing themselves of support from ‘virtual’ or thematic C4Es).

The CSIS reported that all Smarter School National Partnerships (SSNPs), including the ITQ NP, improved teaching, learning and professional development opportunities in schools, and

¹³ SC codes (School Codes) were used to differentiate commentary across schools while maintaining the confidentiality of the school identity.

teachers' access to high quality professional development. Apparent gains were greatest in the early stages of implementation as professional development became more available and of higher quality, and with mentoring and in-class support becoming more available. The analysis of the CSIS longitudinal data demonstrated that teachers' improvements in planning to meet individual student needs, collaboration with other teachers, and accepting collective responsibility for teaching and learning continued to be apparent after two years.

In site visits, all groups interviewed (Principals, HATs (or equivalent), Executive staff, Teachers, Paraprofessionals) presented positive evaluations of the impact of the initiatives.

Principals by a strong majority indicated that the C4E initiative provided new opportunities for teacher professional learning and for pedagogical leadership. They generally described and provided positive assessments of ITQ NP programs that had been implemented in their respective schools, one of the most frequently cited being a focus on classroom practice based on the NSW Quality Teaching Framework (QTF).

They also reported increased teacher expertise in practices such as:

- lesson observation and coding in the context of the QTF;
- more reflective practice generally; and/or
- the growing amount of professional dialogue occurring in schools.

The models for operating teacher professional learning in schools that were identified included:

- instructional rounds;
- peer coaching;
- action learning; and
- team teaching.

Principals presented HATs (or equivalent) as being an 'expert' resource and as being central to strategies such as:

- giving demonstration lessons;
- organising classroom observations and feedback;
- team teaching; and
- ensuring site-specific and targeted teacher professional learning¹⁴.

The interview commentary indicated that some schools focused mostly on preservice teachers or New Scheme Teachers. Mentoring programs based on the *Professional Teaching Standards* (NSWIT, 2005) were reported to be in place in such schools. Some Principals indicated teacher improvement by referring to increased numbers being promoted and/or accredited at higher career stages. The use of NSWIT/AITSL Standards in the Teacher Assessment and Review Schedule (TARS) process was reported at some schools.

The commentary from principals highlighted that HATs (or equivalent) had increased teachers' capacity to use data to inform programming and teaching at both class and group level. Further, the principals maintained that data analysis allowed expertise – in the form of experienced teachers or appropriate resources – to be targeted to the most vulnerable students.

¹⁴ Whilst the C4E initiative was a multi-faceted program, respondents' commentary pertaining to Evaluation Question 1 predominantly focused on the HAT role.

HATs (or equivalent) themselves reported specific areas of improvement in teacher capacity in addressing this question. HATS (or equivalent) most frequently reported teacher improvements in the following practices:

- providing student feedback;
- engaging students;
- linking assessment to pedagogy ;
- implementing purposeful assessment;
- mentoring preservice teacher professional experience;
- differentiating students' needs, often developing profiling;
- using IT appropriately for pedagogy;
- teaching of particular subjects that had been targeted, e.g., Mathematics;
- reflection;
- professional dialogue;
- collaboration within school; and
- collaboration across schools.

School executive also linked the role of the C4E initiative to improvements in teacher capacity. Executive teachers at SC.9 enumerated a range of areas in which teacher capacity had improved. These included:

- collaborative partnerships and networking through a Virtual Faculty;
- mentoring of new scheme teachers through team teaching and other support; and
- student engagement and connections to the school community.

Similarly, all teachers presented positive assessments of their experience in C4E schools, which they attributed mainly to the work of the HAT (or equivalent). New Scheme Teachers and Early Career Teachers particularly highlighted the value of support from the HAT (or equivalent):

The peer coaching that I have done with the HAT at this school has been very effective in improving my capacity as a teacher ... it's helped me with my programming ... with reflecting on my teaching ... I'm trying to incorporate technology throughout all key learning areas. (Early Career Teacher, SC.13, Turn 40)

During interviews, teachers – particularly New Scheme Teachers and Early Career Teachers, expressed positive assessments of their experience in C4E schools, and they attributed these assessments mainly to the work of the HAT (or equivalent). In Survey 2, the role of the HAT (or equivalent) was reported to have contributed 'extensively' or 'considerably' to improved support for teachers by 75.2% of respondents and to improvements in the quality of teaching within the school by 66.9% of respondents.

Other teachers also commented on the HAT (or equivalent) role in relation to:

- peer coaching;
- modelling;
- reflection;
- using data (such as NAPLAN, SMART, RAP);
- planning from these data to set targets, monitor students and track progress; and
- having greater capacity in ICT-based pedagogy and teacher feedback.

This commentary was supplemented by discussion of the effectiveness of action research, of a university partner (SC.13) and of the value of peer dialogue. The formation of collaborative networks across schools was also mentioned and evaluated positively, especially by staff in rural schools.

The improvements in teacher quality and quality teaching noted in the interview commentary align with data from Survey 1. Specifically, Survey 1 respondents indicated that the areas of improvement that were most influenced by HATs (or equivalent) included the support for teachers in the school and improvements in the quality of teaching. Also, the accumulated data from each of early career teachers, HATs (or equivalent) and principals gave the highest ratings to the specific role of the HAT (or equivalent) on 'improved support for teachers in your school'. This support translated into 'developing whole-school improvement strategies' and 'supporting individual teachers', as Survey 1 participants rated those strategies highest in perceived priority.

Teacher capacity and measurement were often linked in the commentary. Much of the commentary presented practices and initiatives, such as, observations, instructional rounds, mentoring programs and team teaching, with HAT (or equivalent) in support and/or co-ordinator role, as being an important ways of measuring teacher capacity in relation to improved pedagogy. Another very often-cited measure was the quality of professional dialogue within the school. Staff feedback on teacher professional learning was presented as another measure.

Commentary on the work of the HAT (or equivalent) often highlighted the importance of network support within the school:

High quality professional learning within and outside of school time is of crucial importance. An hour teacher professional learning session at the end of a day does not meet this. We were able to work with our HAT for two days each term in our teams – this is what we need to do (Executive teacher, Survey 2, Comment 3.17-5).

The improvement strategies used by schools were presented as an important aspect of schools' preparation for and implementation of ITQ NP initiatives. Survey 2 respondents were asked to rate the importance of the following improvement strategies:

- (i) *Developing whole-school improvement strategies;*
- (ii) *Supporting individual teachers;*
- (iii) *Working with students experiencing academic challenges (e.g., special needs students) in the classroom;*
- (iv) *Working with performance data to improve learning outcomes; and*
- (v) *Focusing on a specific Year or Faculty within the school.*

The responses to the question are summarised Figure 5.1.

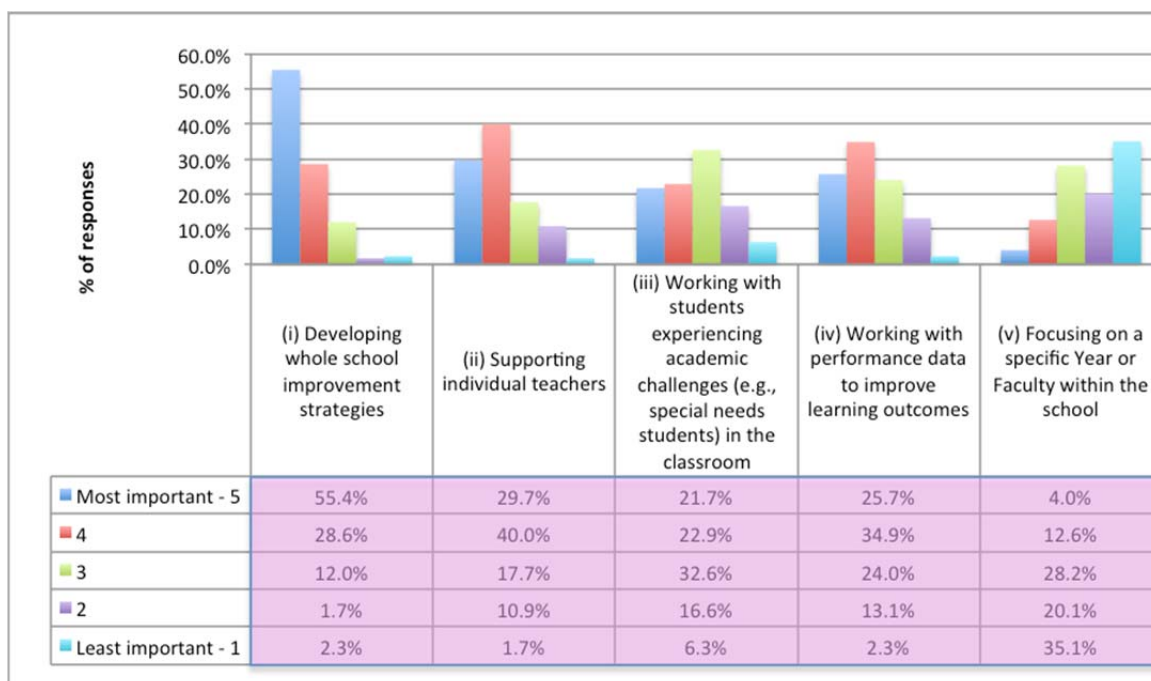


Figure 5.1: Respondent ratings of the importance of improvement strategies

These data indicate that, in descending order, of strategies with the highest combined ratings of 'Most important – 5' and '4' the three most important strategies were reported to be:

- (i) *Developing whole-school improvement strategies (84.0%);*
- (ii) *Supporting individual teachers (69.7%); and*
- (iv) *Working with performance data to improve learning outcomes (60.6%).*

Improvement strategies that focused on a specific Year or faculty within the school had the lowest overall ratings (16.6%).

Differential Item Functioning analysis of survey responses indicated that metropolitan respondents are more likely to rate the importance of the following improvement strategies more highly than provincial respondents:

- (iii) *Working with students experiencing academic challenges (e.g., special needs students) in the classroom; and*
- (v) *Focusing on a specific Year or Faculty within the school.*

Furthermore, classroom teachers were more likely to rate the importance of strategies *Focusing on a specific Year or Faculty within the school* more highly than HATs (or equivalent).

In relation to these whole-school improvement strategies, a number of respondents to Survey 1 expressed the need for shared understandings, collective responsibility and commitment to whole-school change. They presented collective responsibility for improving the learning outcomes of all students as being foundational. Long-lasting change was presented as being dependent upon whole-school strategies that ensure the acceptance, support and participation of the whole school community. Others expressed the view that a whole-school focus created a common purpose and common language for professional dialogue on specific school development priorities:

It is only with a focused, consistent and whole school approach that substantial and sustainable change has come. With all staff and students aware of the learning goals and collaboratively working towards them, academic performance is able to be lifted across the school. (HAT (or equivalent), Survey 1, Q. 28)

In relation to supporting individual teachers, two main themes were present in the responses in Survey 1, namely: targeting professional learning to meet individual teacher needs and opportunities for action research.

Three recurrent themes concerning improvements in teacher capacity and quality teaching in C4Es were present in the responses in Survey 2. These were:

- consensus for the school's direction, evidenced through expressions such as, 'single vision', 'shared goals', 'a culture of shared responsibility', 'entire staff understanding', 'all taking ownership', and 'all staff are drawn into the discussions';
- staff supporting each other and working together, evidenced through the use of terms and expressions, such as, 'collaboration', 'mentoring', 'collegial support', 'substantial professional conversations', and 'professional learning teams'; and
- alignment of evidence and professional practice, evidenced through expressions such as, 'using evidence and data to inform planning', 'knowledge of students', 'data-driven planning', 'analysis of where students are at', and 'working with performance data to improve learning outcomes'.

Building a positive 'school culture' in C4E schools was another repeated theme in comments in Survey 2. Representative comments included:

Developing whole-school improvement strategies as a focus brought people together to achieve a productive purpose. This enabled our ability to form and sustain our focus to build upon worthwhile educational strategies. (HAT (or equivalent), Survey 2, Comment 4.7-77)

The school was disengaged. The National Partnership initiative has allowed staff to participate in school-wide initiatives, which center on teaching and learning ... This has ensured that in all forums, staff have common goals and common strategies to achieve improvement. (HAT (or equivalent), Survey 2, Comment 4.7-69)

The implementation of the *Australian Professional Standards for Teachers* (AITSL, 2011b) comprises one of the twelve facilitation reforms of the ITQ NP. The Standards were to provide a foundational framework, recognised by the professions, for improving the quality of teachers nationally. However, given that at the time of the evaluation, NSW was in the process of transitioning from the NSW standards, survey respondents were asked the extent to which the *Professional Teaching Standards* (NSWIT, 2005) provided a basis for improving the quality of teaching (See Figure 5.2).

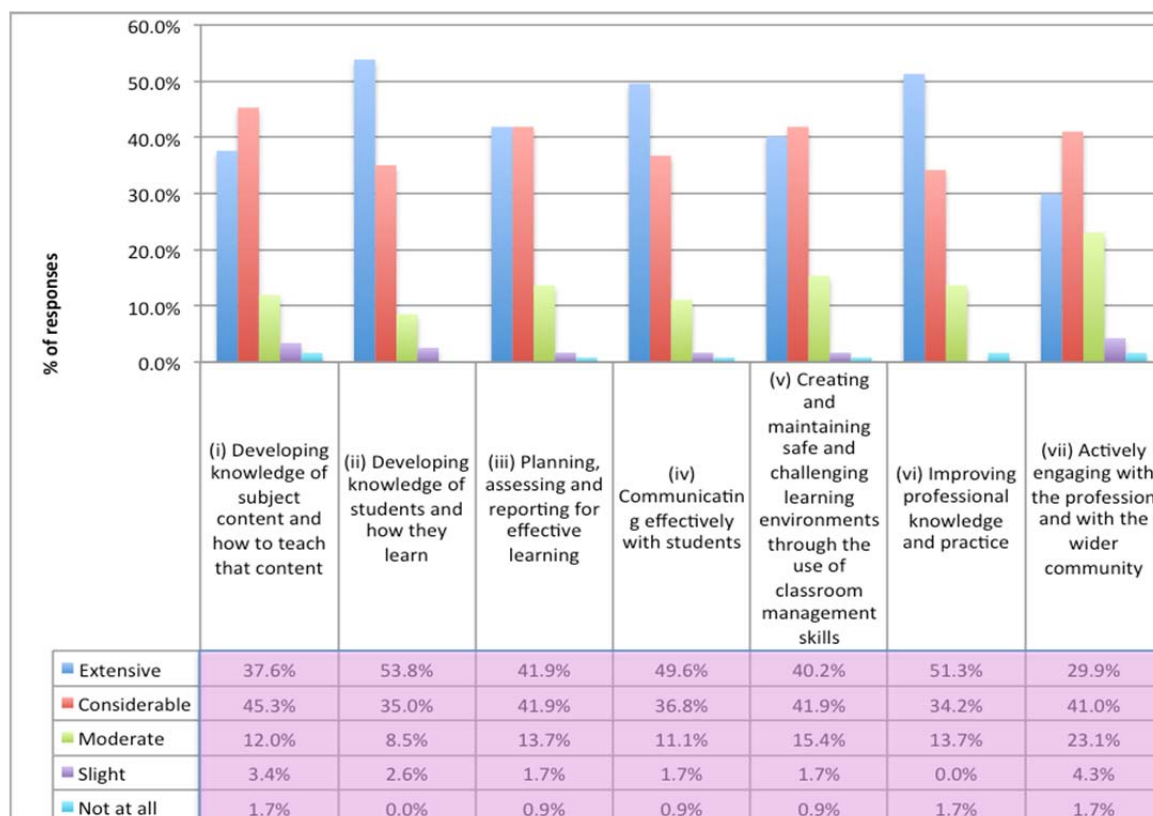


Figure 5.2: Extent Elements of professional standards provide a basis for improving professional practice

With the exception of one Element, namely, Element 7 – *Actively engage with the profession and with the wider community*, more than 80% of respondents indicated each Element provides an ‘Extensive’ or ‘Considerable’ basis for enhancing professional practice. Element 2 *Developing knowledge of students and how they learn* received the highest ratings with 88.8% of respondents selecting ‘Extensive’ or ‘Considerable’. This suggests that the survey respondents regarded this knowledge as being integral to enhancing teaching practice.

Findings from other research projects are also relevant to Evaluation Question 1a. Specifically, findings from the report of the CSIS indicate a range of contextual factors that impact on the magnitude of the self-reported improvements in teacher capacity/skills and executive leadership capacity.

In the context of the CSIS, they include:

- the SSNP being implemented (i.e., ITQ NP, Low SES NP or LN National Partnership);
- the type of school;
- the teachers’ years of experience;
- the location of the school;
- the ICSEA score value; and
- type of students.

The three SSNPs, listed above, have been reported to variously influence the magnitude of reported improvements in teacher and leadership capacity, however the strength of this influence varies with different respondent groups. The strength of reported change in teacher capacity was lowest in ITQ NP schools. The pattern of lower perceived gains was most prominent amongst responses from principals and executives from spoke schools, but amongst executives and teachers from hub schools. This was not the case for principals from hub schools.

The CSIS report (ARTD, 2013) hypothesises several reasons for these results. The first being that hub schools or C4Es were selected because of perceived high performance in teaching and as such it is harder to see improved performance from a high base. The report suggests also that as spoke schools did not receive direct funding, respondents may not be aware that their collaboration with the hub school equates to participation in the SSNPs. Such perspectives may have impacted on the perceived relevance of the questions.

5.1.3 Summary for Evaluation Question 1(a)

Strategies used by schools to bring about changes provide insights into the improvement agenda of C4Es. Improved pedagogy and professional learning were reported to be the predominant foci. Surveys provided the initial data collection instruments. Commentary from Surveys 1 and 2 was collected from personnel in stand-alone C4E schools and schools that were part of a C4E hub-and-spoke school network. A small number of schools implementing initiatives under the umbrella of the Low SES Communities National Partnership also received surveys.

The Surveys collected commentary concerning particular strategies for their perceived importance in improving teacher capacity and quality teaching in hub and spoke schools. The three most important strategies were reported to be:

- developing whole-school improvement strategies;
- supporting individual teachers; and
- working with performance data to improve learning outcomes.

Survey responses indicated that curriculum development, improved pedagogy and professional learning were interrelated.

In relation to whole-school improvement strategies, respondents made reference to the need for shared understandings, collective responsibility and commitment to whole-school change. They presented collective responsibility for improving the learning outcomes of all students as foundational. Lasting change was reported to be dependent upon whole-school strategies that ensure the support and participation of the entire school community.

Others presented a whole-school focus as creating a common purpose and common language for professional dialogue on specific school development priorities. The general view articulated was that a focused, consistent and whole-school approach was conducive to substantial and sustainable change.

The notion of staff supporting each other was raised as a second fundamental aspect of improvements in teacher capacity and the quality of teaching more generally. This support was evidenced through the use of terms and expressions, such as ‘collaboration’, ‘mentoring’, ‘collegial support’, ‘substantial professional conversations’, and ‘professional learning teams’.

Principals presented the C4E initiative as providing new opportunities for teacher professional learning and for pedagogical leadership. They spoke about increased teacher expertise in practices such as lesson observations, increased reflection, and professional dialogue amongst colleagues and they presented the HATs (or equivalent) as being a central resource. School Executive members also provided positive assessments of the C4E initiative and the HAT (or equivalent) role in improving teacher capacity in areas, such as, collaborative networks, mentoring, and student engagement.

Measuring teacher capacity was identified as being an important aspect of gauging the extent to which C4Es are effective. Initiatives such as observations, instructional rounds, mentoring programs (with HAT (or equivalent) in support and/or co-ordinator role) and team teaching with

the HAT (or equivalent) were reported to be important to measuring teacher capacity in terms of improved pedagogy. Another very often-cited measure was the quality of professional dialogue within the school. Staff feedback on teacher professional learning provided another measure.

The third aspect of improved teacher capacity related to aligning evidence and professional practice, which was indicated by expressions such as, “using evidence and data to inform planning”, “knowledge of students”, “data-driven planning”, “analysis of where students are at”, and “working with performance data to improve learning outcomes”. The commentary was underpinned by the view that student attainment data provide the necessary feedback for school personnel to monitor the teaching and learning environment.

Overall, the commentary indicated that long-lasting change associated with any improvement agenda within C4Es required a whole-school approach that was supported by the HAT (or equivalent) role. The role was reported to provide the opportunity to facilitate a range of professional learning strategies that included the purposeful use of data as feedback to monitor the teaching and learning environment at two levels, i.e.:

- (i) the school level, at which the focus was building collective responsibility, shared purpose and a common language; and
- (ii) the teacher level, at which the focus was developing collaborative networks, collegial support and professional conversations.

5.2 Evaluation Question 1(b): To what extent are Centres for Excellence effective in achieving improved student performance in both hub and spoke schools?

5.2.1 Introduction to Evaluation Question 1(b)

The discussion of improved student performance emphasises three key areas for consideration. These are large-scale, standardised measures of student attainment, such as NAPLAN results, the use of internal indicators of student performance in the classroom, and the importance of teacher practice and/or professional learning to address perceived areas of need.

It's quite hard, in some ways, to see in our data, our NAPLAN data that there's been a huge shift, but it actually allowed us to really focus on what the needs were for the kids and then build that ownership within our staff, of 'OK, what are you seeing in your classroom and what difference can you make in your room?' and that's been our key to what we believe is our success (HAT (or equivalent), SC.13, Turn 40)

5.2.2 Findings for Evaluation Question 1(b)

Commentary from Surveys 1 and 2 contained views concerning improved student performance in individual schools as well as hub and spoke schools as a result of the suite of C4E initiatives.

Survey participants were asked to indicate the extent to which the C4E reform initiatives had contributed to changes in student outcomes and engagement with schooling. Overwhelmingly, survey respondents indicated that the initiatives had contributed positively to moderate-to-considerable changes in student outcomes. Figure 5.3 quantifies the perceived change in learning outcomes as a result of the ITQ NP initiatives.

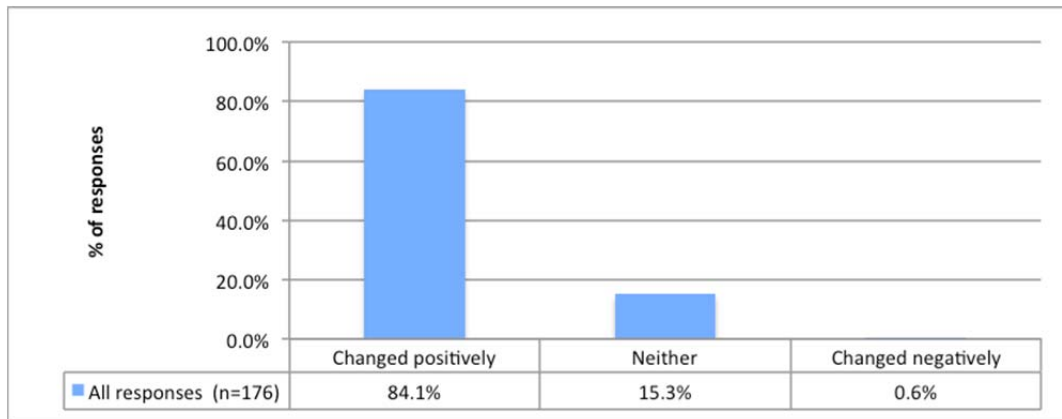


Figure 5.3: Change in student learning outcomes as a result of ITQ NP initiatives

Similar proportions of respondents indicated that there had been moderate-to-considerable change in student engagement. The greatest changes that were reported related to academic areas (93%). Close to one third of respondents indicated that there had been changes in student behaviour. Other areas of change identified by respondents included:

- respect for teachers;
- risk taking and ownership of learning;
- application to vocational pathways;
- leadership and values;
- engagement in learning/taking responsibility for their own learning;
- awareness of science;
- engagement in additional programs; and
- social skill development.

Figure 5.4 shows amount of perceived change as a result of ITQ NP initiatives is most evident by response tranche.

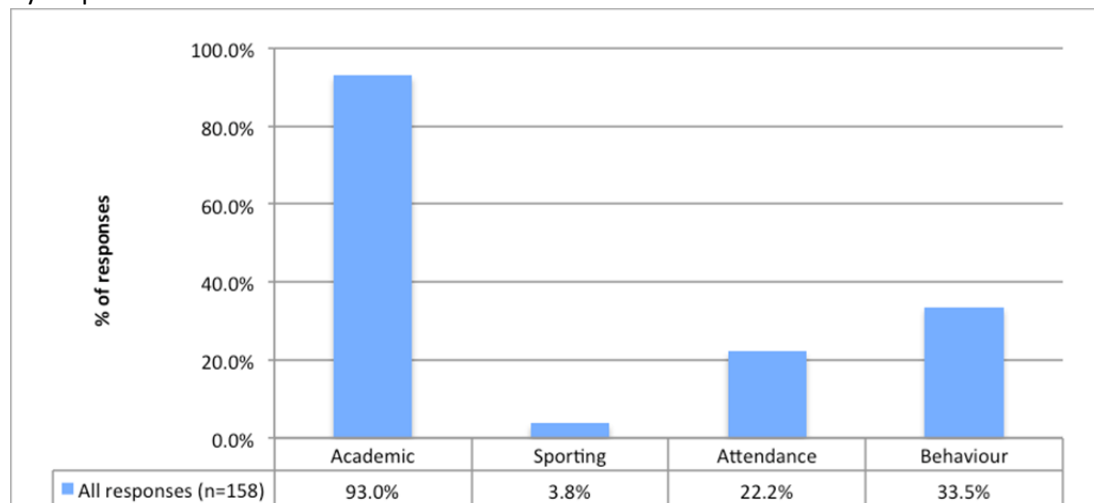


Figure 5.4: Area of change as a result of ITQ NP initiatives most evident

Respondents from metropolitan schools were more likely to respond more positively than respondents from provincial schools to the question concerning:

The extent of the level of student engagement in this school changed as a result of participation in the National Partnership.

Further, concerning improved student performance as a result of ITQ NP initiatives, Principals and Executive teachers from C4E and low SES schools responding to Survey 1 reported that the HAT (or equivalent) role had increased the focus on student performance. The mean score of responses from low SES schools is significantly higher for responses to questions about student performance and the role of the HAT (or equivalent) in improving student performance. This suggests that teachers in low SES schools may have a more positive attitude about the impact of the initiatives.

A key issue to consider in this area is the mechanism being used to judge student performance. One measure is results in standardised testing or other forms of external examination. Some Principals, for example, presented evidence of improvement based on external test results. Five of the interviewed Principals argued that results had manifested in NAPLAN. Similarly, the HATs (or equivalent) at SC.5 and SC.16 reported on their school's NAPLAN data. The HAT (or equivalent) at SC.5 described the school as being "*completely turned around*" (HAT (or equivalent), SC.5, Turn 12) from a downhill data trend prior to becoming a C4E.

Similarly, The HAT (or equivalent) at SC.16 reported that there was strong growth in NAPLAN in 'Writing' and s/he argued that it resulted from their pedagogy in modelling writing. S/he also reported a shift in student engagement that was manifested in students working beyond their Stage expectations. S/he presented the writing of Stage One students as an example. S/he reported that previously quietly, compliant students in classrooms were "*looking for that feedback, that they're used to having, questioning one another ... having that engagement*" (HAT (or equivalent), SC.16, Turn 306).

The Principal at SC.15 reported enormous growth from Year 3 to Year 5 with students moving up "*two or three*" (Principal, SC.15, Turn 68) bands. A Principal at a school with a high enrolment of NESB students (SC.16) cited improvements in punctuation, grammar and numeracy, and attributed this to improvements in student understandings and improved teacher questioning. At SC.8, the Principal reported improved student performance in relation to NAPLAN, syllabus outcomes and progression in individual profiles.

Similarly, two Principals, one from SC.5 and the other from SC.1, used NAPLAN and HSC results to argue improved student performance. The SC.5 Principal described growth in Aboriginal students' NAPLAN data, which s/he attributed to the C4E focus on literacy, numeracy and Aboriginal Education. The Principal also measured improvement by the increased number of students with Band 6 HSC results. The Principal in SC.1 used results in Mathematics as an argument about student improvement in Mathematics, although s/he also argued that improvement was "*steady*" and "*progressive*" (Principal, SC.4, Turn 54). Teachers at the school supported this view when they used work samples to argue improved student intellectual quality.

The Principal of SC.9 spoke of "*excellent*" (Principal, SC.9, Turn 75) HSC results in the school and improved student performance in those spoke schools that had connected well to SC.9. Although s/he argued that it was "*impossible to measure one particular intervention as responsible for improvement*" (Principal, SC.9, Turn 51). This example highlights a problem with measuring results in these ways. Producing evidence of changed data on NAPLAN, for example, does not necessarily establish causation. 'Value-addedness' ought to be the first expectation in arguing these claims, but even where value-addedness exists, claims of causation from C4E initiatives in the short-term are not necessarily established. SC.14 is an example here.

The Principal (at SC.14) presented evidence showing that the top Bands in Writing in 2011 were well above state averages. Year 7 NAPLAN results in 2011 indicated that 45% of students at SC.14

achieved Bands 8 or 9, and 40% of the Year 9 students achieved Bands 9 or 10. Importantly, however, these data were not measures of 'value-addedness'.

The Principal also argued that historically the highest performing students at the school had gained little in 'Writing' results from Year 7 to Year 9. S/he presented NAPLAN data which showed that currently the highest performing students in Year 9 (based on their Year 7 NAPLAN results) had an average increase from Year 7 to Year 9 of one band and 74 raw score points. Similarly, in comparing two years of related data, s/he showed that in 2010, 36% of Year 9 students scored in the bottom two bands for 'Writing', but this was reduced to 17% of Year 9 students in 2011 after a targeted intervention. The Principal attributed these improvements to targeted school programs funded by the C4E.

Strictly speaking, one would need longer-term evidence correlating specifically value-added improvement alongside C4E initiatives to make this case strongly. Similarly ongoing data would be needed to eliminate the possibility of these results being isolated cases. To argue this case over the short-term based on these results alone is difficult. Some interviewees argued that, among other things, NAPLAN cannot measure results from C4E initiatives within the relevant timespan. It needs to be acknowledged, however, that 'one-off' performance improvement in testing after targeted intervention may indicate little about actual long-term literacy skills, especially when part of the targeted interventions may have been more practice at NAPLAN.

Nevertheless, it needs to be acknowledged that Principals and teachers know their students and know their schools. When they argue student improvement has occurred and that this is attributable to C4E initiatives, this needs to be heeded.

The complexities concerning the issue of measurement can be gauged from those cases in which NAPLAN results were rejected as a measure. These respondents raised three areas of objections to using data such as NAPLAN as a measure of student improvement, namely:

- the time period of the C4E initiative was too short to show growth;
- one measure alone could not capture improvement; and
- NAPLAN could not measure what they saw as key areas of improvement.

One principal stated that "*in the next couple of years ... we're going to see the big improvements*" (Principal, SC.6, Turn 24), and suggested when improved practices are embedded through consolidation, then growth (measured by NAPLAN data) would occur. Principals did, however, report a range of measures, such as the quality of classroom work, lesson observations, internal assessments and improved retention to argue for better student outcomes:

Observations of teachers and student work samples ... there has been a marked improvement ... (Principal, SC.13, Turn 65)

The principals frequently expressed conviction about the relationship between teacher learning and student improvement:

The key quality to improving student learning outcomes is really well thought and very directed professional learning for teachers. (Principal, SC.13, Turn 65)

... the only way we can get better results from kids is having better teaching ... And so I think down the track we will see this. I think we're starting to see it. (Principal, SC.17, Turn 46)

Improving teacher quality is not just to improve teacher quality; it's to improve the outcomes then from the students in their classes. (Principal, SC.18, Turn 26)

When not citing NAPLAN, respondents frequently mentioned qualitative means of measurement for student improvement, which was largely data gathered internally. Internal data sources that

were mentioned included student surveys and individual student profiles. It was reported that students in SC.18 were individually targeted with Individual Learning Plans (ILPs). The following examples give a sense of the range of measured (and measurable) data.

At SC.13 it was reported that improvement in writing was measured by the nature of rubrics used in a classroom that focused on engagement, self-regulation and collaboration. It was also reported that the work with the HAT (or equivalent) and academic partner at the school focused successfully on student feedback.

At SC.3 and SC.4 it was reported that teachers linked improved Early Career Teacher capacity and quality in scaffolding students and effective assessment, to improved student performance as measured by assessments. One teacher at SC.19 stated: “*regardless of the ability level there have been improvements*” (Teacher, SC.19, Turn 44) in student effort and quality that had been measured in examinations. In this school, teachers indicated an increase in student confidence in expressing and substantiating their ideas in classroom discussion, tasks and bookwork as a result of a consistent writing focus across all school subjects.

Teachers at SC.18 reported big influences on student engagement through improved use of technology in the classroom. Staff at SC.2 reported data indicating improvement at the extremes of an ability spectrum, e.g., life-skills programs with higher teacher expectations had students performing beyond their supposed capabilities, while all students were given increased opportunities to succeed.

A teacher at SC.5 described improved student performance that s/he attributed to increased opportunities and increased ICT resources, as measured by changes in availability and use of ICT for Juniors, and a new Year 9 Photography course that was not available prior to C4E.

Other information presented by respondents to indicate improved student performance included:

- willingness of students to attempt tasks that they would not have attempted previously;
- increased student engagement;
- more positive classroom relationships;
- decline in the number of student discipline referrals and in suspensions;
- improved attendance both whole day and period-by-period;
- fewer students categorised as being ‘at risk’;
- improved student retention;
- higher performance than previous cohorts on assessment tasks,
- improved student self-assessment, student reflection and student response to feedback;
- greater proportion of students going on to higher education; and
- positive student feedback about belonging to the school.

Rather than speak only about current results, the Principal of SC.15 spoke about plans for future measurement of the C4E’s success, which was to be focused on tracking 20% of Year 2 children over the next 4 years in terms of ‘resilience’ and in terms of vocabulary development. This indicated the identification and selection of measurable performance factors, as well as the expectation that such gains needed to be measured beyond the short period the C4E initiative.

Three principals focused specifically on improved performance of ATSI students. One Principal (SC.18) explained the tracking of individual improvement and performance through focused individual data, rather than whole group data. This meant targeting individual needs, but in

terms of measurement, individual variance in student performance made it very difficult to ascribe causation. The second Principal (SC.20) indicated that supporting individual student learning goals through ILPs entailed accessing opportunities for ATSI students. The third Principal (SC.5, Turn 4) reported “*some tremendous growth*” in ATSI students’ latest NAPLAN data, as well as improved attendance of ATSI students and increased numbers of ATSI students continuing into Year 11 and 12. The Principal attributed the latter to a mentoring program for students that had been introduced as a result of the C4E initiative.

Some HATs (or equivalent), too, reported improvements in particular student groups, such as LBOTE students, ATSI students, gifted and talented students and low SES students. The HAT (or equivalent) at SC.12, for example, reported improved student confidence, capacity and aspirations. The HAT (or equivalent) at SC.12 argued that the community work experience programs that the school offered enabled students to view literacy and numeracy as purposeful in the world of work.

5.2.3 Summary for Evaluation Question 1(b)

Across the surveys and interviews, the most common change identified amongst students was academic change. A number of respondents commented on their school’s implementation of strategies targeting individual students. For some schools, the priority was to support the learning of academically challenged students as a means to reduce disruptive behaviour within the school. For other schools the priority was to support such students in the classroom as a means to improve the school’s NAPLAN and other public assessment results. Comments indicated that performance data were being widely used to focus school planning, to identify the student needs to be addressed in teaching and learning programs, and to identify teacher development needs.

During interviews, some principals made reference to NAPLAN data as indications of the efficacy of funded programs or targeted interventions. Performances above State averages, percentages of students in high Bands, cohort improvements over time, and the performance of groups of students with particular learning needs, such as LBOTE students, ATSI students, gifted and talented students and low SES students, were cited by principals as instances of impact.

Three objections were expressed at other sites, however, to the use of data such as NAPLAN as a measure of student improvement. These were:

- that the time period of the C4E initiative was too short to show growth;
- that one measure alone could not capture improvement; and
- that NAPLAN could not measure what they identified as key areas of improvement.

Where NAPLAN was not used, measurements for student improvement were largely based on data gathered internally. These could include student surveys, individual student profile data and Individual Learning Plans (ILPs). The following examples give a sense of the range of measured (and measurable) data:

- teacher records of observations showing more positive classroom relationships;
- writing measured by the nature of rubrics used in a classroom that focused on engagement, self-regulation and collaboration;
- student improvement, effort and quality measured in examinations;
- student confidence in expressing and substantiating their ideas in classroom discussion;
- engagement through improved use of technology in the classroom;
- drops in the number of student discipline referrals and in suspensions;
- improved retention;

- attendance, both whole day and period-by-period;
- fewer students 'at risk';
- improved student self-assessment, student reflection and student response to feedback; and
- higher proportions of students going on to higher education.

From the survey data, principals and members of the school Executive from C4E and low SES schools indicated that the HAT (or equivalent) role had increased the focus on student performance. On questions about student performance and the role of the HAT (or equivalent) in improving these, the mean score of responses from low SES schools is significantly higher. This suggests that teachers in low SES schools may have a more positive attitude about the impact of relevant initiatives. Commentary from principals indicated conviction about the link between teacher learning and student improvement; principals frequently referenced the role of the HAT (or equivalent) and their work with teachers concerning the quality of classroom practice, lesson observations, and internal assessments.

Overall, the data indicated that the focus on student improvement in C4Es has furnished an approach to the use of data, which is context specific and, therefore, beneficial for students within particular teaching and learning environments. The purposive use of data, either on the basis of large-scale standardised testing or a range of school-identified targets, in relation to different learner needs was identified as a common element across different schools. The use of data as feedback provided the motivation and justification for directed professional learning for teachers. Whilst there were many references to the link between teacher professional learning and student improvement, the time frame of the ITQ NP initiatives was often reported to be too short to observe long-term sustainable improvements.

5.3 Evaluation Question 1(c): To what extent are Centres for Excellence effective in achieving effective application of network learning principles where schools collaborate and share?

5.3.1 Introduction to Evaluation Question 1(c)

The discussion of collaboration and sharing through networks emphasised three key areas. These were:

- the basis of the network, e.g., the identification of a need matched with available resources;
- mutual advantage or reciprocity between contexts; and
- the purposive provision of support.

The following extract illustrates these three key areas.

[The school] has a large proportion of younger New Scheme Teachers on its staff, and it doesn't have ... a middle leadership tier of KLA co-ordinators or subject co-ordinators, or HATs if you like. So part of the partnership work was to utilise [our] resources to provide assistance where there was that gap in the provision of support ... And I think that's why partnership, rather than outreach, is the aim of the game. (HAT (or equivalent), SC.3, Turns 4 & 78)

5.3.2 Findings for Evaluation Question 1(c)

Survey respondents were presented with a range of questions related to the establishment of learning networks between schools and within their school. Table 5.1 presents information concerning learning networks *between* schools.

Table 5.1: Respondents by participation with other schools in a learning network

		% of respondents
Involvement in Learning Network during ITQ NP participation	Yes	78.3%
	No	21.7%
	n	175
Involvement in Learning Network prior to ITQ NP participation	Yes	39.4%
	No	60.6%
	n	137
Focus of the Learning Network	Curriculum development	12.4%
	Improved pedagogy	36.5%
	Professional learning	43.8%
	Other	7.3%
	n	137

While just over 75% of all respondents to Survey 2 indicated that their school was involved in a learning network with other schools, 85% indicated learning networks were operating within their school. Approximately 60% of respondents indicated that their school was not involved in networks with other schools prior to engagement with the ITQ NP reforms. Approximately 50% of respondents indicated that they were not involved in learning networks within their school prior to the reforms.

Participation in learning networks within schools is provided below in Table 5.2

Table 5.2: Respondents by participation in learning networks within schools

		% of respondents
Involvement in Learning Network during ITQ NP participation	Yes	85.5%
	No	14.5%
	n	173
Involvement in Learning Network prior to ITQ NP participation	Yes	48.6%
	No	51.4%
	n	148
Focus of the Learning Network	Curriculum development	11.5%
	Improved pedagogy	51.4%
	Professional learning	31.1%
	Other	6.1%
	n	148

5.3.2.1 Purpose of collaborative networks

Collaborative networks between schools were reported to be predominantly focused on professional learning and improved pedagogy rather than curriculum development.

Respondents indicated that networks within schools had a stronger focus on improved pedagogy than networks between schools. In response to the opportunity to indicate other foci for the learning network in Survey 2, a number of respondents indicated that curriculum development, improved pedagogy and professional learning were interrelated and that their networks addressed all three foci. Other purposes for collaborative networks identified by respondents included:

- improving student engagement;
- enhancing the teaching of literacy and numeracy;
- promoting eLearning, including web2¹⁵ tools and using social media for education;
- supporting the accreditation of teachers;
- supporting leadership development;
- developing mentoring, supervision and sharing skills;
- supporting accreditation of teachers;
- supporting transition, gifted and talented education and vocational education;
- supporting isolated teachers;
- enhancing quality assessment;
- strengthening university partnership; and
- improving community involvement and relationships.

5.3.2.2 Factors supporting and hindering collaborative networks

Respondents to Survey 1 were asked to identify factors or issues that supported and hindered the establishment of collaborative networks. The most important factors or issues identified were framed as questions for response in Survey 2. Factors that were reported as supporting the establishment of networks were:

- making the time available (82.6%);
- allocating specific funding to support the network (74.6%);
- establishing a clear purpose (73.2%);
- utilising the HAT (or equivalent) role (71%);
- sharing personnel (64.5%);
- focussing the network's activities on professional learning (65.2%);
- ensuring communication and dialogue (65.9%); and
- ensuring leadership and coordination (63.0%).

The main factors or issues that were reported as hindering the establishment of collaborative networks were:

- workload (70.5%);
- lack of time (67.0%);
- different priorities amongst stakeholders/staff members (54.5%);
- lack of funding (42.0%);
- staff turnover (41.1%);
- reluctance of some teachers to participate (30.4%);

¹⁵ Web 2.0 tools may allow users to interact and collaborate with each other in a social media dialogue as creators of user-generated content in a virtual community

- distance (32.1%); and
- availability of casual relief staff (30.4%).

Differences amongst responses of different respondent groups were investigated using Differential Item Functioning (DIF) analysis. Differences in the responses between primary and secondary teachers, HATs (or equivalent) and classroom teachers, and respondents in metropolitan and provincial schools are reported in Table 5.3.

Table 5.3: Differences in responses to questions about collaborative networks within and between schools

Question Stem	Question Option	More likely for:
Strategies that supported the establishment of the networks or partnerships within the school:	Establishing the purpose of the networks or partnership	HAT (or equivalent) respondents
Strategies that continue to support the functioning of networks or partnerships within the school:	Utilising the HAT (or equivalent) resource	Secondary respondents
	Establishing the purpose of the networks or partnership	HAT (or equivalent) respondents
	Utilising the support of external consultants	Provincial respondents
Factors that hindered the establishment of networks or partnerships within the school:	Staff turnover	Primary respondents
		Metropolitan respondents
Factors that remain as impediments to the functioning of effective networks or partnerships within the school:	Different priorities amongst staff members	Secondary respondents
		Classroom teacher respondents
	Teachers' reluctance to participate	HAT (or equivalent) respondents
	Access to relevant professional learning	Provincial respondents
Strategies that supported the establishment of the network with other schools:	Establishing a virtual network	Metropolitan respondents
Strategies that continue to support the functioning of the networks with other schools:	Ensuring leadership and coordination of the network	Primary respondents
	Ensuring shared responsibility, vision and priorities	Primary respondents
Factors that hindered the establishment of networks with other schools:	Different priorities amongst stakeholders	Primary respondents
	Distance	Provincial respondents
	Availability of casual relief teachers	Provincial respondents
	Access to relevant professional learning	Provincial respondents
Factors that remain as impediments to the functioning of effective networks with other schools:	Different priorities amongst stakeholders	Metropolitan respondents
		Secondary respondents
	Distance	Provincial respondents
	Teachers' reluctance to participate	Provincial respondents

Information in Table 5.3 provides some insight into priorities and influences within and across contexts. Important considerations within schools, for example, relate to network purpose, access to resources, and staff engagement.

Respondents at the site-visit interviews also proposed a link between being involuntarily assigned to relationships and the application of effective network learning principles. Specifically, respondents indicated that a lack of choice in the selection of network partners could have a deleterious effect on the application of effective network learning principles and that time sometimes ran out before the issue could be overcome. Notwithstanding this issue, HATs (or equivalent) in particular expressed positive views about the potential of collaboration between schools and largely positive views about their own hub-and-spoke relationships. Particularly successful relationships were reported to include New Scheme Teacher networks and, in one case, a Virtual Faculty. It was reported, however, that some relationships needed to be nurtured more than others.

Site-visit schools that were not operating in a hub-and-spoke model were all non-government schools. The principal at SC.21 (non-government) indicated that other schools were invited to join SC.21 activities, but the uptake was *“not particularly huge”* (SC.21, Principal, Turn 82). SC.10 (non-government) was described by its principal as having a culture of sharing resources and skills, but that efforts to connect with other schools had been unsuccessful.

Responses addressing the extent to which C4Es were effective in the application of network learning principles were polarised. Respondents indicated that such relationships were either successful or unsuccessful, and the success or otherwise was frequently attributed to how the network/hub-and-spoke relationship began.

5.3.2.3 Difficult relationships

The principal at SC.13 reported that willing collaboration varied depending on the attitudes of principals in the spoke schools. S/he argued that the HAT (or equivalent) made these relationships eventually work in this context through organising networks and providing joint teacher professional learning across schools and networks.

The principal at SC.14 reported a similar experience. Three spoke schools were assigned to collaborate with SC.14 and two joined the network. SC.14 reported that \$5,000 was allocated to each spoke school for teacher professional learning and that the spending was to be negotiated. The principal reported that the money for the spoke schools funded:

- (i) an extension writing course for Year 9;
- (ii) an Aspiring Leaders Program; and
- (iii) Moodle training (funding bought the spoke school’s server).

In addition, the SC.14 HAT (or equivalent) reported that s/he delivered teacher professional learning to the spoke schools on developing student profiles and the components of persuasive writing, mastering Moodle and 21st Century literacy. It was also reported that spoke-school staff members were also trained for the ACER NAPLAN Marking Certificate. Evaluation data from one spoke school were reported to be very positive, but the SC.14 principal indicated that the quality of collaboration with the three spoke schools varied. The principal also commented that local decision making in the choice of network/spoke schools was important.

Commentary from interviewees at SC.16 provided some perspective on redressing initial reticence. The principal here stated that having schools allocated to them was *“not ... the best way to go about it”* (Principal, SC.16, Turn 80). The allocated spoke schools, in this instance, were all much smaller and from different SES communities. Furthermore, four of their then current learning-community schools were not allocated as spoke schools. The Principal reported that in the first year, SC.16 was regarded as *“coming in over the top”* (Turn 74), and s/he indicated that spoke schools were expected to follow SC.16 interests.

The HAT (or equivalent) at SC.16 indicated that it had taken a long time to build rapport with schools that had been involuntarily assigned to the network and a long time to overcome the adverse consequences of being assigned 'C4E' status in the relationship. The HAT (or equivalent) indicated that these problems had largely been overcome by the final year of the C4E initiative. S/he reported that SC.16 offered C4E resources to spoke schools, showed the spoke schools how SC.16 was using them and asked how they could support spoke schools with those resources. The HAT (or equivalent) reported that s/he supported the spoke schools and, in turn, that SC.16 teachers benefited from increased awareness of classroom issues external to their own school setting.

It was reported that schools within the SC.16 cluster shared resources, and built a support network for new scheme teachers and their supervisors. With respect to the latter network, it was reported that the HAT (or equivalent) designed a lesson observation feedback form and explained how it was linked to QTF and the *Professional Teaching Standards* (NSWIT, 2005). The HAT (or equivalent) indicated that his/her role involved building Assistant Principal (AP) capacity in spoke schools, especially in relation to literacy.

The HAT (or equivalent) indicated that s/he taught classes in spoke schools and "*worked extraordinarily hard to break down ... barriers*" (HAT (or equivalent), SC.16, Turn 140¹⁶). The relationship was reported to be successful when teachers collaborated across the schools through personal partnerships and through the HAT (or equivalent). The HAT (or equivalent) stated, however, that many initiatives were unlikely to be sustained in the spoke schools when the key personnel were no longer there. In contrast, however, s/he indicated that the Early Career Teachers' and New Scheme Teachers' network in the hub-and-spoke relationship was sustainable.

The principal at SC.6 reported that the hub-and-spoke model "*didn't seem to work to well for us*" (Turn 30), adding, "*I don't think that the community of schools was ready for ... [collaboration] ... to work properly*" (Turn 38). The HAT (or equivalent) described two main issues hindering the development of a collaborative network. Firstly, the spoke schools were described as being very different in terms socio-economic status, structure and university proximity. Secondly, the spoke schools were reported to have different goals to SC.6, which was the hub.

Nevertheless, the principal reported that the second HAT (or equivalent) had established successful curriculum projects involving spoke schools and that s/he had "*been the driver of an enrichment group at the high school with local primary schools*" (SC.6, Turn 32), describing the project as "*fantastic and something that I am going to take on and continue next year*" (Turn 34). The HAT (or equivalent) was reported to have consciously set out to mend relationships by:

- sharing resources;
- keeping spoke schools informed;
- attending spoke staff and Stage meetings;
- addressing needs identified by the spoke school (e.g., a focus on Maths with *Taking Off With Numeracy*); and
- building enrichment class transition programs with partner schools.

¹⁶ A professional transcription company transcribed audio files of the semi-structured interviews. Transcription conventions were applied, including the numbering of speaking turns. The Turn Numbers indicated in in-text citations specify the speaking turns in which the quoted material was stated, enabling the quoted material to readily located for future reference if required.

The HAT (or equivalent) stated: *“it’s taken two years for it to be successful”* (SC.6, HAT (or equivalent), Turn 76), adding that: *“all of the schools work better now ... [we] just had to get the right people involved”* (HAT (or equivalent), SC.6, Turns 78-80).

5.3.2.4 Successful relationships

The principal at SC.15 reported a set of relationships that worked well almost from the beginning, and the details of this contain lessons for developing such networks. The principal described the collaboration as an *“outstanding”* (Turn 50) part of the C4E initiative in the school. It was the subject on which s/he spoke most at interview. The fundamental issue s/he conveyed was that s/he insisted on choosing the spoke schools and resisted accepting any school allocated by the DEC.

Eventually one school was allocated to SC.15, and its principal was the only (initial) resistant *“blocker”* (Turn 54). The principal’s criteria for choosing spoke schools were that the schools:

- be small, with no Deputy Principal (DP) to prevent any clashes with the HAT (or equivalent) (SC.15 itself is not small);
- needed support; and
- had Principals with whom s/he felt s/he could work.

The principal attributed the success of the cluster partly to the alignment of the schools’ goals. S/he reported that the spoke schools are willing continue the relationship even if they have to do so without funding, which is a robust measure of the success of the relationship. Relationship building was reported to be strategic. The principal indicated the need to initiate the other principals into the C4E program, but concentrated on the HAT (or equivalent) working with APs in the spoke schools. S/he maintained that building this extra layer into the relationship bypassed the problem of the busy-ness of the principals in the spoke schools.

It was reported that each spoke school designated a person to be an advocate for the C4E and for the HAT (or equivalent). APs from spoke schools undertook professional learning at SC.15, and the HAT (or equivalent) also worked in the spoke schools. Teacher professional learning was shared between SC.15 and the spoke schools, such as working together on new curricula. Over time, it was reported that the HAT (or equivalent) was invited to the spoke schools more frequently, and became involved with new scheme teachers and accreditation in those schools.

The SC.15 HAT (or equivalent) was able to offer time and support, which was reported to increase communication and trust. Developing trust was partially attributed to the HAT’s (or equivalent) acknowledgment of the contribution/expertise of the APs in the spoke schools. Over time, the spoke school Principals were reported to become public supporters of SC.15. Allocating funds directly to the spoke schools, and making the resources of SC.15 available to the spoke schools, were also reported to be important. The principal indicated that SC.15 funded the spoke schools to 8-10% of the C4E budget. Funding spoke schools, according to the HAT (or equivalent), *“was the key”* (HAT (or equivalent), SC.15, Turn 52), partly because it allowed spoke teaching principals and APs to work with the HAT (or equivalent). This principal attributed the success of the cluster to SC.15’s willingness to accommodate spoke school needs and not impose a program on them.

Using a similar approach, the principal at SC.4 indicated that s/he consulted spoke schools, met with principals and asked them: *“Who have you got in your school? What sort of things might we want to do? Let’s brainstorm.”* (Turn 125). In response to that data, it was reported that the HAT (or equivalent) at SC.4 worked on a management plan and C4E priorities, which established a strong foundation for spoke/hub schools’ collaboration and the number of spoke schools increased from six to ten schools using low SES funding.

Collaboration between SC.4 and spoke schools was reported to involve staff development days, combined staff meetings, Curriculum Leader days (for extension teacher professional learning in literacy or numeracy) and an Early Career Teacher network. The HAT (or equivalent) at SC.4 stated that the hub/spoke school collaboration continued beyond C4E funding *“and has in fact grown, we now have 13 schools that are in the Curriculum Leader Network”* (HAT (or equivalent), SC.4, Turn 107). The HAT (or equivalent) was identified by the principal as the organiser of *“massive staff development days”* (Turns 125 & 164), collaborative staff meetings with spoke schools (on literacy, numeracy) and the successful Early Career Teacher network that *“has gone absolutely gangbusters”* (Turn 160) using videoconferencing, wiki and a blog.

The principal noted that the C4E had funded team teaching, mentoring and high-level planning, which had continued beyond C4E: *“they’re [teachers] giving their own time up to do that now”* (Turn 145). The HAT (or equivalent) at SC.4 suggested some of the success of the collaboration with spoke schools was due to the HAT (or equivalent) role having a 50% teaching load with *“time and capacity”* (HAT (or equivalent), SC.4, Turn 121) to facilitate programs.

The principal of SC.9 said that the school had a *“culture of reaching out”* (Turn 35). SC.9 teachers were reported to mentor beginning teachers both at SC.9 itself and in the spoke schools. The principal indicated that sharing resources and having common staff workshops became *“quite widespread”* (Turn 35) during the C4E initiative. It was also reported that: the HAT (or equivalent) co-ordinated communication between the spoke schools and SC.9; SC.9 hosted Virtual Faculty connections in Mathematics, Science, Geography, History and Music; and SC.9 spoke-school connections remained after the C4E funding ended.

Staff at SC.9 indicated that the Virtual Faculty enabled collaborative meetings between schools, collaboration on moderation of assessment and the development of improved assessment tasks in each school. Staff also indicated that the collaboration manifested in a mentoring program, modelling teaching and supplying evaluation and feedback to spoke-school teachers. All schools in the hub and spoke were reported to now be collaborating on programming the Australian Curriculum. Teachers in each school were reported to value the degree of collaborative support across schools. While at interview, executive teachers at many sites expressed ambivalence about the success of inter-school collaboration. Executive staff at SC.9 outlined a model of how inter-school collaboration could gain good outcomes from the use of technology.

The principal at SC.5 argued that the success of C4E collaborations was as a result of the ‘drivers’, for example the *“very committed”* (Turn 54) HAT (or equivalent). Beyond the time of the C4E, the principal indicated that a teacher role was funded to maintain links with the spoke school. Spoke school collaboration at SC.5 was reported to include the development of a transition program that was significant to building relationships among the primary school, the high school and the community. A noticeable improvement in teachers sharing information was mentioned. Examples cited included a meeting with primary teachers to discuss specific students’ needs before their commencement of Year 7 in order to help student placement at the High School (SC.5).

SC.5’s principal expressed the significant contribution the C4E hub/spoke school collaboration had made towards progress on improving engagement with the ATSI community. The Principal referred to an increase in Aboriginal students coming to school and an increase in parental involvement to indicate progress. The HAT (or equivalent) at SC.5 also indicated that the role was significant to developing a collaborative network with local schools. The HAT (or equivalent) said: *“We couldn’t get a foot in the door of our main partner school ... it’s the availability of someone to forge those relationships”* (HAT (or equivalent), SC.5, Turn 24).

As a result of the C4E, the HAT (or equivalent) reported better relationships with spoke schools, particularly in terms of the Transition program building connections between Primary and High School. It was reported that the SC.5 hub and spoke schools now have a longer transition induction and consistency between schools, such as, in developing literacy and numeracy continua for transition. The HAT (or equivalent) commented that the transition program, influenced by a “*middle school concept*” (HAT (or equivalent), SC.5, Turn 22), had involved SC.5 teachers running programs at partner schools (e.g., Art and Ceramic workshops), giving students an opportunity to “*see several faces that already are familiar*” (Turn 24) when commencing high school. The SC.5 and spoke-school network was also reported to participate collectively in teacher professional learning. The reported funding of a teacher to facilitate ongoing collaboration indicates the perceived effectiveness of the current application of network learning principles.

Staff at SC.2 indicated substantial benefits in the collaboration across schools, highlighting the benefits of working with peers in a different environment and sharing ideas collegially. SC.2’s specific C4E focus was around partnerships, with 14 schools involved. Benefits specified included subject teachers now being networked and the collaborative development of resources.

Staff at SC.2 indicated that SC.2 had had no communication with these other schools prior to the C4E initiative. Success was attributed to:

- self-nomination into the project/network;
- pooling of money; and
- employment of a co-ordinator to manage the project.

The HAT (or equivalent) at SC.2 argued that collaboration worked best when it was informal, because collaboration was not always equal. The HAT (or equivalent) argued that benefits included teachers making connections with other schools and increased awareness of the work of other professionals.

The principal at SC.3 indicated that the C4E involved teachers at two metropolitan schools mentoring early career teachers at a rural school. The principal evaluated the collaboration positively, stating:

I’m really proud of this project because it’s not just been a two-way collaboration, but a three-way collaboration ... we’ve all mutually benefited. I was particularly proud of the way it culminated in our joint staff conference at the beginning of term three. (Principal, SC.3, Turn 48)

A joint staff conference was evaluated as a significant achievement for the C4E project considering distance and organisational difficulties. The HAT (or equivalent) indicated that this was a “*really beneficial*” and a “*rich*” three-way “*partnership*” (HAT (or equivalent), SC.3, Turns 8, 78). S/he elaborated that teachers at two metropolitan schools provided mentoring, advice and resources for early career teachers and new scheme teachers at a rural school in order to redress a “*gap in the provision of support*” (HAT (or equivalent), SC.3, Turn 4). School personnel at SC.3 also reported that they were developing skills and capacity in a mentoring team at the rural school during the second C4E phase to enable continued provision of support for early career teachers and new scheme teachers.

Networks were also reported to work well at another rural school, SC.20. The HAT (or equivalent) at SC.20 attributed the success of the network to choice in the selection of partner schools; s/he reported that SC.20 went with “*likeminded people*” (HAT, Turn 89) with whom they

had been working previously. The HAT (or equivalent) at SC.20 outlined that s/he travelled to other schools for a day, focusing primarily on the effective use of technology for teaching.

Staff at SC.20 also provided commentary on a Virtual Faculty, which they described as being of great use, especially for beginning teachers who were the only teachers of particular subject(s) in their respective contexts. It was also reported that students took part in virtual excursions. Teachers indicated that change was achievable. The commentary indicated that feedback and unit redevelopment occurred with input from teachers across the Virtual Faculty, who were able to respond to student feedback from 80 students instead of eight. Staff outlined that teachers shared responsibility for the design and delivery of virtual lessons. Typically, one teacher programmed and developed tasks for a virtual lesson that would be delivered by another teacher. The HAT (or equivalent) described this as “*brilliant*” (Turn 38) professional learning. It was also reported that the Virtual Faculty improved student collaboration on assignments.

The hub-and-spoke relationship at SC.19 was described as being based on a prior collaborative working group. It was reported that the collaborative network involved teacher professional learning days and regular meetings to develop common assessment items in preparation for the Australian Curriculum, to share programming and resources, and to conduct common marking across schools. The network was evaluated as being particularly valuable for smaller schools and smaller faculties.

Smaller faculties across SC.19’s C4E network were reported to enrich learning experiences for students and improve teachers’ capacity. In relation to the former, it was reported that three schools, each of which had small Music faculties, collaborated to present a joint concert involving Year 11 students. In relation to the latter, it was reported that teachers in small Mathematics and Textiles faculties received programming assistance from teachers in a larger faculties. The HAT (or equivalent) at SC.19 indicated the significance of his/her role in the C4E network suggesting: “*The key thing ... is you have to have the funding and you have to have that key person driving these things*” (HAT (or equivalent), SC.19, Turn 61).

The HAT (or equivalent) at SC.13 outlined an Early Career Teacher network that s/he ran with the spoke schools. Staff at SC.17 indicated that very favourable feedback had been received in relation to their facilitation of networks between schools. The pattern of working within school, then across schools, with some emphasis on new scheme teachers and accreditation, was mentioned quite frequently (SC.3, SC.4, SC.8, SC.11, and SC.13).

5.3.3 Summary for Evaluation Question 1(c)

Across the surveys and interviews, the percentage of respondents indicating that they and/or their school had been involved in a learning network was substantial – more than 80%. Improved pedagogy and professional learning were reported to be the main foci of these networks.

Responses provided insights into issues that supported and hindered the establishment of collaborative networks. Factors that supported the establishment of networks included, in priority order:

1. making the time available;
2. allocating specific funding to support the network;
3. establishing a clear purpose;
4. utilising the HAT (or equivalent) role;
5. ensuring leadership and coordination;
6. focussing the networks’ activities on professional learning;
7. ensuring communication and dialogue; and
8. sharing personnel.

The main factors or issues that hindered the establishment of collaborative networks included, also in priority order:

1. workload;
2. lack of time;
3. different priorities amongst stakeholders/staff members;
4. lack of funding;
5. staff turnover;
6. reluctance of some teachers to participate;
7. distance; and
8. availability of casual relief staff.

Differences amongst responses from different groups were investigated using Differential Item Function analysis. This analysis provided further insights into priorities and influences across contexts. Thus for example, considerations that supported the operation of networks within schools related to network purpose, and access to resources (HAT (or equivalent) and professional learning). Considerations that did not support the operation of networks within schools included different priorities amongst staff, access to relevant professional learning, and staff engagement.

Survey data indicated that networks between schools were positively supported where there was access to online technology – such as that provided by virtual networks, effective leadership and coordination, and shared responsibilities. As with networks within schools, networks between schools were hindered by different priorities amongst staff or poor access to relevant professional learning. In addition, distance, availability of relief staff and staff engagement had the potential to have a detrimental impact on the effectiveness of the network.

Interview data provided the opportunity to consider the nature of network relationships more deeply. The issue of being involuntarily assigned to relationships was reported to have had a deleterious effect on early relationships and time for the C4E initiative was sometimes reported to lapse before network relationships could best be strengthened. HATs (or equivalent), in particular, presented positive commentary about the potential of collaboration across hub-and-spoke clusters. Some relationships across hub-and-spoke clusters, however, were reported to need more nurturing than others. Commentary concerning network relationships was polarised: network relationships were appraised as being either ‘successful’ or ‘unsuccessful’, and appraisals were frequently related to how the hub-and-spoke relationships began.

Some recurring aspects emerged from sites where the network relationships were described as being more difficult to establish. The most important of these related to differing perspectives as a result of personnel attitudes concerning engagement and differing school goals or context, e.g., low SES/PSP schools, middle schools, or schools located close to a university. In these instances, it was generally reported that the HAT (or equivalent) eventually made these networks function effectively by identifying an agreed purpose for professional learning that could be shared.

In many instances it was reported that the HAT (or equivalent) had to work hard to break down barriers, particularly around perceptions of status arising from the designation of schools to a particular hub and spoke arrangement. As articulated by one principal, some communities of schools were ready for collaboration, others were not.

Overall, the opportunity to develop links between schools was reported to focus attention on contextual considerations that supported or hindered the establishment and continued functioning of effective networks. Whilst the reported foci of school planning and professional

learning varied, there were reported elements of success that were common across contexts, namely:

- making the time available to develop the network and forge relationships;
- allocating funding to support the network;
- establishing a mutually advantageous purpose for the network; and
- utilising the HAT (or equivalent) resource.

Repeatedly, the single most important influence on the effectiveness of any network reported in the commentary was the HAT (or equivalent) – their expertise, time, commitment and capacity to build strong relationships.

5.4 Evaluation Question 1 (d): To what extent are Centres for Excellence effective in achieving effective relationships with partner universities?

5.4.1 Introduction to Evaluation Question 1(d)

The following extract highlights two main considerations that emerged in the discussion of university partnerships, namely, the importance of professional experience as a basis for consolidating school-university relationships, and the opportunities for drawing on expertise from different universities to support in-school professional learning.

We have developed a relationship with [the university] ... that has been really supportive of us ... it's a reciprocal thing, because we take on a lot of [their preservice teachers] ... and s/he [lecturer] has come and done professional learning with us ... we have a good relationship ... we can talk and we talk about students. [S/he's] come out to see students and things like that, so that's been really good. The other thing that we do is the learning circles, where we've basically developed a program, which we get all of the preservice teachers from around the area ... and we cover things that have... seem to ... there seem to be gaps ... (HAT (or equivalent), SC.15, Turns 52-60)

5.4.2 Findings for Evaluation Question 1(d)

At interview respondents provided commentary related to general relationships with partner universities and relationships concerning professional experience. This Section presents and analyses commentary concerning general relationships. Commentary concerning relations associated with professional experience can be found in Chapter 10.

5.4.2.1 Relationships with partner universities

Diverse relationships with universities were reported in Surveys 1 and 2 and in site visit interviews. Commentary from Survey 1, however, related to relationships with universities in the provision of preservice teacher professional experience placements, and certainly at interview, the focus by classroom teachers and school executive in this question was on preservice teachers' professional experience. Consequently, much of the commentary concerned longstanding university relationships that predated the ITQ NP. Teachers indicated that they valued the role of the HAT (or equivalent) in facilitating school-university relationships concerning preservice teachers' professional experience.

Respondents to Survey 1 commented that the HAT (or equivalent):

- liaised with the universities, and
- provided support and orientation to both preservice teachers and supervising teachers; and

- ensured both groups were aware of the expectations on them.

In order to explore the relationship at a deeper level, Survey 2 respondents were asked to indicate if their school had a partnership with a university that went beyond participation in the preservice. They were asked also whether the partnership was in existence prior to the ITQ NP (See Table 5.4).

Table 5.4: Respondents whose school is involved in a university partnership

		Number of responses
School has a partnership with a university		50
	Partnership was in existence prior to the NP	21
	Partnership was not in existence prior to the NP	26
	Nil response	3
School does not have a partnership with a university		109
All responses		159

Fifty participants indicated that their school had such a partnership with 21 indicating that the partnership was in existence prior to the ITQ NP.

The reasons identified by respondents for establishing school-university partnerships are set out in Table 5.5 below.

Table 5.5: Reasons cited by respondents for establishing a partnership

	Number of responses
(i) Geographic proximity	25
(ii) Prior collaboration	15
(iii) Personal contacts	11
(iv) Staff members undertaking higher degree qualifications at the institution	1
(v) The University approached our school to participate in research	7
(vi) The University has an interest in supporting innovative teaching and learning programs	11
Other	4
All responses	50

These data indicate that proximity, prior collaboration and personal contacts were important initiation factors for these respondents. The reciprocity of the arrangement is also apparent from number of respondents also indicating that the university has an interest in supporting innovative practice. This indicates the need for interest and willingness from both parties to ensure the effectiveness of the relationship.

Respondents raised also a number of other issues supporting the establishment of partnerships. These included:

- The school was chosen by the university.
- Partnership is with an alliance of girls schools.
- The school is a Demonstration School formed in the 1950s.
- Our high ATSI group makes us attractive to students who are specialising in research.

- The Principal is on the University’s Education Advisory Board.
- It was a System (Diocesan) decision.
- We had approached the Institution originally around a partnership based on QTF and Professional Experience. The Institution was not interested, due to distance. However, another department of the same institution later approached us regarding some initiatives through their ITQ NP program and engagement of low SES students. This has been highly successful.
- Both partners are Catholic organisations.
- it was part of the C4E initiative.
- To offer further support to student teachers, a shadowing program was created through the C4E, which allows preservice students to come to school and observe best practice in the classroom with no added pressure.
- The school is part of a university led project.

5.4.2.2 The structure and form of the Partnership

Survey 2 respondents were asked to indicate the structure and form of their partnership with universities. Their responses are summarised in Table 5.6.

Table 5.6: Form and focus of the school-university partnerships

	Number of responses
(i) The partnership is an informal arrangement	24
(ii) The partnership is a formal arrangement with agreed commitments from each of the partners	21
(iii) University staff regularly visit the school	10
(iv) The University makes available its professional learning expertise to teachers	15
(v) School staff regularly meet with teacher educators to plan for more effective teaching	7
(vi) The partnership has resulted in specific training for Supervising Teachers/Mentors	10
(vii) The focus of the partnership is on improving teaching and learning across the school	15
(viii) The partnership includes a research element investigating better ways of supporting and preparing New Scheme Teachers	10
(ix) The partnership has not impacted on prior or current practices	6
(x) The focus of the partnership is not clear	6

The responses indicate both informal and formal arrangements between the partners. Despite 21 respondents indicating the existence of formal arrangements, only ten respondents indicated that university staff regularly visit the school and only seven indicated that they meet with teacher educators to plan for more effective teaching.

The provision of the university’s professional learning expertise, support for a school-wide focus on improving teaching and learning, specific training for mentors and supervisors, and research

aimed at improving the professional experience were all reported in commentary as foci of partnerships. However, a small number of respondents (six) indicated that the focus of the partnership was not clear and that the partnership had not impacted on practice

A number of respondents took up the opportunity to comment further on their partnerships. These comments included:

- *The University offers professional development for teachers and School Learning Support Officers (SLSOs) and funded post-graduate study.*
- *The school and institution work together to help our disadvantaged students aspire to higher learning.*
- *Members of the Institutions English faculty visit the school annually to deliver staff professional learning and student lectures. Senior English students also visit the University.*
- *To take part in research: our school was part of a study being carried out by institution into what makes students apply effort into their learning.*
- *To improve preservice teachers' development.*
- *To allow students to be familiar with university regardless of their background.*

At interview, nine Principals reported professional learning connections with universities as significant to achieving relationships, increasing professional conversations and improving teacher and preservice teacher capacity. The professional learning described by the Principals took three forms:

- teacher professional learning with university academics across a range of areas;
- programs for preservice teachers developed through university-C4E school connections;
- C4E staff (teachers including HAT (or equivalent) and Early Career Teachers) facilitating workshops and demonstration lessons; and
- lectures at university for preservice teachers.

The success of relationships with a university, like those with other schools, were reported to be dependent on factors, such as previous relationships. Relationships in schools where academic partners had been imposed on the C4E were reported to be less successful, often because of resistance to the imposition itself. The Principal at SC.10 reported teacher resistance to the partner being imposed, but also indicated that the relationship improved over time as the academic partner assisted implementation of the school's QTF focus.

The Principal at SC.14 reported on the relationship as "*not reciprocal*" (Turn 131). The Principal also reported that SC.14 doubled the number professional experience placements hosted since becoming a C4E. It was also reported that they developed a service-learning program for the university, and the HAT (or equivalent) ran model lessons and delivered lectures at the university. However, the Principal argued, there was little reciprocation. The Principal in SC.14 indicated that the school-university relationship was asymmetrical, largely because there was no real time to build it.

5.4.2.3 General relationships with universities/academics

In Survey 2, a number of respondents indicated the existence of school-university partnerships, including both formal and informal arrangements with a range of purposes. The commentary indicated that successful relationships went further than those related to professional experience to include academics working closely with schools on a number of topics. The proportion of responses from C4E schools in Survey 1 indicating formal arrangements or ongoing and significant engagement with universities were greater than for spoke schools or low SES

schools. The data suggest that initiatives to develop collaborative partnerships with universities were largely confined to C4E schools.

At interview, HATs (or equivalent) provided the most positive commentary about such links. The HAT (or equivalent) at SC.18 reported a highly successful relationship with an academic based on action learning projects concerning the school's implementation of the QTF. As noted above, the success of relationships with universities, like those with other schools, were attributed to factors such as previous relationships.

HATs (or equivalent) indicated that successful relationships with universities/academics, other than those exclusively concerned with professional experience, were very important to the school's work on the C4E initiative. Support from academic partners was reported to address areas such as numeracy, authentic mathematics, student engagement, action research and formative assessment. HATs (or equivalent) and academics were often reported to work in each other's environment.

Staff at SC.1 outlined a number of changes in the school facilitated by a partner academic, who was also working with the school on the QTF and subject-based development. Academics were sometimes reported to work directly with school students. The HAT (or equivalent) at SC.2, a school with no C4E university partnership, reported accessing "*experts*" (Turn 26) from different universities for teacher professional learning focusing on specific areas of pedagogy. The HAT (or equivalent) suggested a continuing benefit as "*that networking allowed the teachers to have access to those experts, so now they know those people*" (HAT (or equivalent), SC.2, Turn 26).

The principal of SC.13 reported very good relationships with their academic partner. S/he indicated that such relationships needed a co-ordinator to succeed and the HAT (or equivalent) in their school had done this job well. Likewise, the principal at SC.5 suggested the HAT (or equivalent) made a significant contribution to the "*success of the [C4E] program*" (Turn 54) by developing strong connections with the university. Teachers in SC.13 indicated that they valued their work with academic partners on student engagement, action research and Mathematics.

The early career teacher at SC.6 described the university partnership as "*really beneficial*" (Turn 58), stating:

As a teacher the relationship with the university is invaluable because they've come and they've done further programs, and every program that they have come in and done has been amazing and has definitely had a positive impact on the school. (Early Career Teacher, SC.6, Turn 58).

5.4.3 Summary for Evaluation Question 1(d)

In some schools, successful relationships were reported to extend beyond the provision of professional experience for preservice teachers. Examples of academics working closely with schools in a number of areas were detailed in survey responses. The proportion of survey responses from C4E schools indicating formal arrangements or ongoing and significant engagement with Universities was greater than the proportion from spoke schools or low SES schools. The data suggest that initiatives to develop collaborative partnerships with universities are largely confined to C4E schools.

At interview, principals reported professional learning connections with universities as being significant to achieving effective relationships, increasing professional conversations and improving teacher and preservice teacher capacity. The professional learning described by the Principals encompassed:

- teacher professional learning sessions/programs with university academics; and
- workshops and demonstration lessons facilitated by C4E staff (teachers including HAT (or equivalent) and early career teachers).

A number of factors that impacted adversely on the relationships with universities were also raised by school personnel, and these included:

- imposition of a university partner;
- lack of reciprocity;
- logistical constraints regarding joint timetabling of activities; and
- differences in school and university 'cultures'.

An additional perspective concerning the lack of financial rewards for university-school partnerships that lie outside research interests provided an additional challenge in the development of relationships intended to improve the quality of teaching in schools.

Overall, relationships with universities were reported to encompass opportunities for teacher professional learning. Where successful relationships were established and developed, the efforts of the HAT (or equivalent) were identified as being an essential component in managing the dynamics associated with professional learning priorities. A number of influences that impacted on the effectiveness of the school-university relationship were identified; however, some of these were presented as being beyond the scope and time-frame of the C4E initiatives.

5.5 Overall Summary for Evaluation Question 1

5.5.1 Evaluation Question 1(a)

- A range of enablers, usually focused on the HAT (or equivalent) was identified through a range of support for a focus on pedagogy.
- Potential inhibitors were largely identified in the context of being positively addressed by the C4E structure, e.g.: having available time; establishing communication channels; focusing on professional learning; and ensuring shared responsibility, vision and priorities
- In relation to support for individual teachers, important practices were targeting professional learning to meet individual teacher needs and opportunities for action research. Strategies, such as, mentoring and peer coaching supporting individual teachers and working with performance data, were evaluated positively.
- A range of areas of improved teacher capacity were identified and included: improved teacher feedback; better assessment practices; improved teacher reflection; increased teacher professional dialogue and discussions; better teacher collaboration.
- Schools were reported to focus predominantly on whole-school improvement strategies that were seen to make a difference in terms of teacher professional learning, building networks and improved pedagogy.
- Long-lasting change was seen as dependent upon whole-school strategies, built around a positive school culture, ensuring the engagement and participation by all stakeholders within the school community.
- HATs (or equivalent) were driving teacher capacity to use data to inform programming and teaching at both class and group level. Data analysis allowed expertise to be better targeted to the most vulnerable students.
- The Professional Standards for teachers were reported to provide a strong basis for improving and/or enhancing teaching practice.

5.5.2 Evaluation Question 1(b)

- The establishment of C4E facilitated a focus on strategies for improving the quality of those aspects of teaching known to improve learning.
- A variety of forms of measurement were used to gauge improved student performance.
- A school-wide focus on professional learning for teachers was reported to have a positive impact upon student performance.

5.5.3 Evaluation Question 1(c)

- The C4E initiatives were reported to contribute to the development of professional networks both within and across schools, many of which focused on professional learning or improved pedagogy.

5.5.4 Evaluation Question 1(d)

- Partnerships with universities were predominantly focused on support for pre-service teacher education, though some schools had relationships that were broader.
- Developing a deeper relationship that serves to improve the quality of teaching in the school, outside of the research-based interests of universities, presents some procedural issues. Strong relationships were built on establishing reciprocal benefits, i.e., clear focus, structured actions and mutual advantage.

6 Evaluation Questions 2: HAT (or equivalent) Impact Theme

6.1 Introduction

This Chapter addresses the second Evaluation Theme that considers the role of the Highly Accomplished Teacher (HAT or equivalent). This Theme comprised six question parts that focus on the impact of the role. This Evaluation Theme, together with its respective question parts, are:

Highly Accomplished Teacher Theme (Impact), Evaluation Question 2: To what extent has the HAT (or equivalent) initiative been effective in achieving:

- a. effective career progression within the classroom for skilled teachers;
- b. attraction and retention of skilled teachers in hard to staff schools;
- c. improved capacity and effectiveness of other teachers in ITQ NP hub and spoke schools (as well as in relevant Low SES NP schools);
- d. enhanced capacity of teachers to utilise student attainment data to help them more effectively meet individual student needs;
- e. improved student performance; and
- f. sustainable improvements in teaching and learning through changes in school planning and management practices?

6.2 Evaluation Question 2(a): To what extent has the (HAT or equivalent) initiative been effective in achieving effective career progression within the classroom for skilled teachers?

6.2.1 Introduction to Evaluation Question 2(a)

The following extract has been selected to reflect important considerations related to the career progression dimension of the HAT (or equivalent) role. The comment makes reference to acquired expertise and skills, their application in the role and the notion of professional growth, each of which contributed to the effectiveness of the role as a classroom-based career option.

I've learnt so much through this and it's used everything I've ever learnt previously in terms of my pedagogy knowledge, knowledge about how kids learn, leadership skills, interpersonal skills, it's all ... I've had to use everything I have in this job, and it's developed me in all those areas as well. (HAT (or equivalent), SC.13, Turn 57)

The response to this question addresses opportunities made available to demonstrate the skills that were considered particular to the HAT (or equivalent) role, and how those skills were evident and applied within classroom contexts. Consequently, effectiveness of career progression for HATs (or equivalent) is elaborated in terms of these two considerations of inherent skills, as articulated in an agreed set of criteria for the teaching profession, and their application, as documented by colleagues.

6.2.2 Findings for Evaluation Question 2(a)

One perspective on 'career progression' is the notion that the HAT (or equivalent) role provided opportunities to build pedagogic leadership capacity amongst HATs (or equivalent) and other teachers. To be transferable across contexts, such leadership capacity, and the associated skills sets, need to have a basis in an agreed set of criteria or indicators. Given that these capacities

are embedded within the higher-level stage of Professional Teaching Standards (NSWIT, 2005), evaluation survey respondents were asked to rate the impact of the role on the accreditation process at these higher levels for HATs (or equivalent)¹⁷ and other teachers. The responses to these questions are summarised in Figure 6.1.

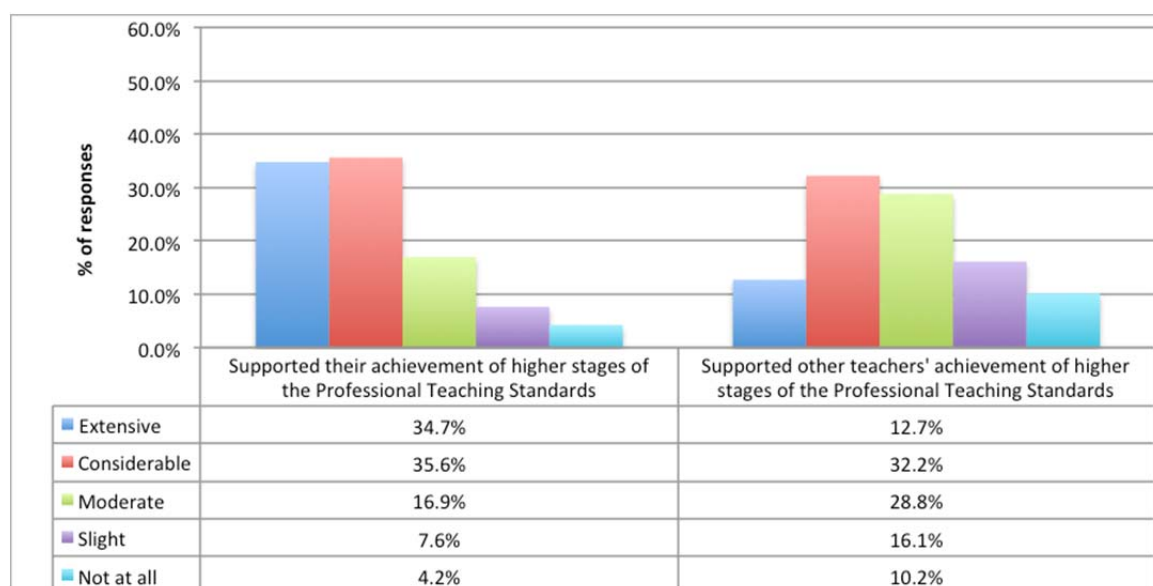


Figure 6.1: Extent the HAT (or equivalent) role supported accreditation at higher levels

The data show that great majority of survey respondents saw the HAT (or equivalent) role as being a pathway towards accreditation at the higher levels with 70.3% of respondents selecting *Extensively* or *Considerably*. Accreditation at any level affirms, through a peer review process, a particular skill set associated with that level. There was less support for the notion that the role supported the accreditation of other teachers with only 44.9% of respondents indicating *Extensively* or *Considerably*. Supporting accreditation of other teachers, however, needs to be placed in the context of engagement with the Elements of the Standards, a necessary first step in the overall process.

Respondents were therefore asked to consider each Element of the Professional Teaching Standards and with the exception of one Element, namely, Element (vii) *Actively engage with the profession and with the wider community*, more than 80% of respondents indicated each Element provides an *Extensive* or *Considerable* basis for enhancing professional practice. Element (ii) *Developing knowledge of students and how they learn* received the highest ratings with 88.8% of respondents selecting *Extensive* or *Considerable* (Figure 6.2). This suggests that the survey respondents saw this knowledge as being integral to enhancing teaching practice.

¹⁷ Within the Government sector accreditation at either the Professional Accomplishment of Professional Leadership levels was a mandatory process associated with the role.

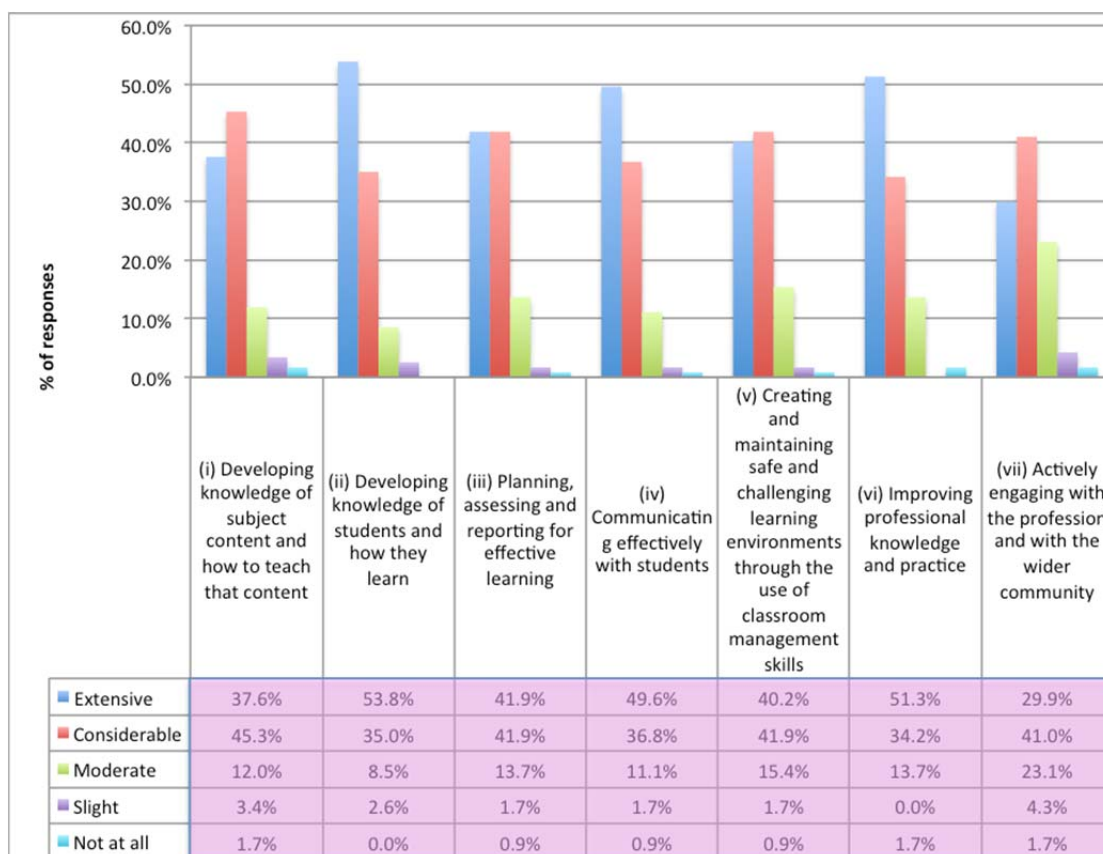


Figure 6.2: Extent elements of professional standards provide a basis for improving professional practice

As an additional skills perspective, all survey respondents were asked a question that further elaborated the HAT (or equivalent) role in terms of professional practice. The question focused on the extent to which particular activities were seen to be integral to the role. Four activities attracted more than 90% of ratings in the *Extensively* or *Considerably* categories. These activities were:

- (i) *modelling and demonstrating quality teaching to peers and others (93.9%);*
- (iii) *supporting the quality of professional learning offered to teachers across the school/school cluster (92.1%);*
- (ii) *working collaboratively with members of the school executive to plan and initiate whole-of-school teacher quality improvement strategies (91.2%); and*
- (iv) *mentoring/coaching and supporting individual teachers to provide professional feedback (91.2%).*

These values highlight important activities that help to define the role and make it an attractive career progression.

The following material qualifies the notion of ‘within the classroom’. This material is based on survey commentary and site-visit interviews and, therefore, can be regarded as representing the ‘voice’ of respondents.

Building strong professional relationships Particular aspects of the role were identified in key words and expressions that appeared consistently in the commentary and they provide an

indication of the skill set for those aspiring to the HAT (or equivalent) role. References were made to 'support', 'collaboration', 'networking', 'modelling lessons', 'relationship building' and 'increased confidence', all of which highlight the strong focus on working with colleagues. The way in which the role was described also provided an indication of:

- (i) what the role encompassed, e.g., *"the HAT role was able to support teachers in a practical way at their stage of development"* (HAT, Low SES NP, Survey 2);
- (ii) how the HAT undertook the role, e.g., *"peer coaching staff and working with New Scheme Teachers"* (HAT, Low SES NP, Survey 2, Comment 9.6-30); and
- (iii) anticipated outcomes associated with the role, e.g., *"I think the role improved teacher dialogue and confidence in their own teaching using a collaborative approach"*, (HAT, Low SES NP, Survey 2, Comment 9.7-33).

Whilst much of the professional focus of the HAT (or equivalent) reflected the support provided to Early Career Teachers, there was also a whole-school consideration evident in the comments about opportunities to concentrate on particular teaching and learning targets that included:

- documenting Professional Competence;
- providing quality professional experience placements for preservice teachers;
- working with Early Career Teachers to increase their confidence in the classroom;
- developing quality teaching and learning programs;
- sustaining peer coaching, mentoring, team teaching and lesson study practices;
- motivating experienced teachers to achieve specific professional learning goals; and
- sharing practices *within* schools and *across* networks of schools.

Collaboration with staff was described in terms of how HATs (or equivalent) worked with individuals, small groups of teachers, school networks and universities to sustain improved pedagogies and to share best practice. References were made to establishing networks, working with KLA teams, identifying professional learning goals, peer coaching, mentoring and modelling lessons. A pertinent comment relating to collaboration included the notion that the professional learning needs of staff were different, e.g., classroom management for New Scheme teachers, and pedagogical practices that would enhance student learning for experienced teachers. Addressing the diversity of professional learning needs indicated that the role was perceived to be a facilitative role, *"enabling teachers to better support themselves and their school"* (HAT (or equivalent), Survey 2, Comment 9.6-18).

An integral part of working with colleagues was acknowledged as building strong and productive relationships. Particular skills that were required of HATs (or equivalent) included: facilitation of staff discussions of professional practice; maintaining a focus on professional learning; and, building trust within groups of colleagues.

As articulated by one HAT (or equivalent): *"I think it is easier to make a difference when you are dealing in small groups or 1:1 as the relationships and trust are built. This seems to promote longer lasting effects"* (HAT (or equivalent), Survey 2, Comment 9.7-20).

General agreement was expressed about the rewarding opportunities afforded by the HAT (or equivalent) role as an avenue for those with enthusiasm and ideas that could be applied from within the context of the classroom:

[The HAT] wanted to stay in that role if we were to have Highly Accomplished Teachers, which is a pathway so you don't have to leave teaching in the classroom to get promotion. There are a lot of people who prefer that. I've got a number of Head Teachers who would jump at the opportunity to be a Highly Accomplished Teacher, which means you work with

teachers on improving their teaching and you do a lot of teaching yourself. (Principal, SC.9, Turn 67)

The classroom focus of the role elicited the perception that it was as *“less of a career progression as a career expansion of experience”* (SC.17, Turn 58). The role built on existing professional practice and afforded opportunities to share that practice in more schools and with more people. The notion that the role provided expanded, broadly recognised opportunities for teachers, as a way of recognising and affirming practice was evident in the comment: *“You’re probably going to get more opportunities in that role than if you’re just in a classroom and trying to do lots of things.”* (Assistant Principal, SC.6, Turn 108)

Those undertaking the role offered perspectives concerning aspects that made the role *“the best job they’d ever had”* (HAT (or equivalent), SC.5, Turn 38) and, having taken on the role, how it positioned them to make the next professional move: *“what I have done over the last couple of years has moved me beyond that [previous position], but now where do I go?”* (HAT (or equivalent), SC.19, Turn 72).

In terms of career progression, the role was perceived to be aligned with professional growth as well as with progression into school management. Where professional growth was concerned, the role was described as enabling the application of a broad skill set that was fundamental to creating a teaching and learning environment that enhanced professional practice for individuals, teams and networks. The relevant skills included subject and curriculum expertise, highly developed interpersonal skills, and the ability to support and engage others.

In terms of career progression, the role was also described as a *“stepping stone”* (HAT (or equivalent), SC.7, Turn 138; Principal, SC.15, Turn 64; HAT (or equivalent), SC.17, Turn 164), whereby *“the HAT jobs do feed very nicely into a DP job”* (SC.4, Turn 297) or *“the HAT has been an apprenticeship for the DP”* (SC.14, Turn 668). One HAT (or equivalent) did raise the point that:

It might be hard for HATs to walk into a DP role as a result of ... the DP roles have changed too in terms of what they’re required to do ... because a lot of these schools now have TALs [Head Teacher: Teaching and Learning]. (SC.14, Turn 695)

Whilst HATs (or equivalent) indicated that there were different progressions along the career continuum that could be made from their role, one HAT (or equivalent) did make the pertinent comment that *“you can lead from a classroom teaching position ... you don’t have to be an executive to be a leader”* (SC.15, Turn 101). This statement endorsed the teacher quality framework articulated in the Standards documents of both the New South Wales Institute of Teachers (NSWIT, 2005) and The Australian Institute for Teaching and School Leadership (AITSL, 2011b).

Further appraisal of the classroom leadership dimension of the role was provided in the comment of one HAT (or equivalent) who indicated:

I think it’s shown me that I love leading people in teaching and learning, and I’m very glad that this role hasn’t had to deal with a lot of ... I mean there has been management stuff in it, but its main focus is teaching and learning ... often executive positions in schools become all about management and this isn’t. So it’s confirmed that I don’t want to go that management climb the ladder path, but this kind of job, this kind of leadership of actual teaching and learning is what I want to do. (HAT (or equivalent), SC.13, Turn 59)

The comment is representative of those referencing major enabling elements that made the role a valuable professional experience in terms of growth, one that required them to use every aspect of their accumulated expertise but at the same time provided opportunities to learn. Specifically, HATs (or equivalent) articulated links between the role and:

- further study, e.g., at the Masters level into educational leadership;
- opportunities to apply and/or develop existing areas of expertise, e.g., gifted education, curriculum, pedagogy, interpersonal skills, student learning, delivering professional learning, and leading others;
- affirmation of expertise and professional feedback from peers and colleagues;
- clarification of professional identity and aspirational goals;
- making an impact within and across schools;
- working with outside organisations; and
- being a role model for other teachers.

6.2.3 Summary for Evaluation Question 2(a)

The HAT (or equivalent) role was situated, from a remuneration perspective, between the salary of an executive teacher and a deputy principal. The intention of the role was to provide a pathway by which a quality teacher could be recognised with a higher salary while remaining classroom focused. More aligned with professional growth than school management, the role enabled the application of a broad skill set that was identified as fundamental to creating a teaching and learning environment that was conducive to enhancing professional practice for individuals, teams and networks.

The response data provide a clear notion of the profession's view of 'skilled teachers'. In particular, alignment of the HAT (or equivalent) role with the higher levels of the Professional Teaching Standards provides an agreed set of leadership capacities (skills), which can be demonstrated within teaching and learning contexts. In addition, the activities engaged in by HATs (or equivalent) reflect a focus on working with others to enhance professional practice.

In terms of supporting career progression for the HAT (or equivalent), a difference was noted in those activities regarded as inherent in the role and the opportunities for them to be realised. The emphasis that respondents placed on *Working with other members of the school executive to strengthen teacher development structures and initiatives within their teams* provides one strategy for addressing contextual influences.

Hence, the scope of the role and the skills associated with the role describe a career transition where the focus within and across school networks is on:

- enhancing professional practice;
- supporting teachers at different career stages;
- collaborating with staff to share best practices; and
- building strong professional relationships.

6.3 Evaluation Question 2(b): To what extent has the HAT (or equivalent) initiative been effective in achieving attraction and retention of skilled teachers in hard to staff schools?

6.3.1 Introduction to Evaluation Question 2(b)

The following extract highlights a particular approach to the resourcing of 'hard-to-staff' schools. In some instances, where access to personnel with expertise is not an option, schools may need to build capacity from within.

We try to build the capacity of the teachers who are in the schools already, and because they've chosen to be in those schools ... I guess our philosophy is that we build up the people who are already there so that everybody's got the, has been sort of strengthened,

rather than just dropping somebody in, because these people have chosen to work in these schools. (HAT (or equivalent), SC.17, Turn 176)

6.3.2 Findings for Evaluation Question 2(b)

Commentary for this aspect of the HAT (or equivalent) role generated a hypothetical response since respondents did not regard their contexts as ‘hard to staff’. The status of the HAT (or equivalent) role was advanced as the key requirement for attracting applicants, i.e., making the role attractive enough that it would appeal to the aspirations of high-calibre personnel. A possible mix of considerations for attracting staff that would facilitate the transition to a hard to staff context was enumerated, e.g.:

- motivation to focus on professional learning;
- desire to empower individuals and communities;
- ability to balance the management of difficult contexts;
- teaching and learning aspirations; and
- appropriate financial incentive.

Relevant commentary highlighted three considerations for taking up a position in a ‘hard-to-staff’ school, and they related to:

- attributes of the person;
- personal motivation for taking on the role; and
- incentives to attract someone to the school.

Where attributes were concerned, it was suggested that a person’s inherent enthusiasm and *“passion about teaching and learning”* (Deputy Principal, SC.19, Turn 97) would position them well to enhance both student learning outcomes and teacher performance in these settings.

One Principal was quite emphatic when s/he indicated that the role title was secondary to the skills and attributes required. The view expressed was a proactive one, based on articulation of a clear set of the skills required for the particular context, identification of where those skills resided, followed by *“they should be headhunted”* (Principal, SC.4, Turn 199).

An additional, school-oriented, perspective was provided in the HAT (or equivalent) commentary around the notion that *“if a person doesn’t come forward then maybe it’s not going to happen”* (HAT (or equivalent), SC.11, Turn 113). Rather than filling a role for the sake of filling it with the only person who might apply, HATs (or equivalent) considered the strategy of looking further within a school with a view to building whole-school communities rather than individuals as the pivotal role ((HAT or equivalent), SC.17, Turn 214).

The view was expressed that having remarkable teachers teaching with all their heart and soul in difficult circumstances is only one answer. However, it has the potential to disenfranchise others, to the point where it *“absolves teachers of responsibility”* ((HAT or equivalent), SC.16, Turn 190). An alternative approach was articulated in the following extract:

We try to build the capacity of the teachers who are in the schools already, and because they’ve chosen to be in those schools ... I guess our philosophy is that we build up the people who are already there so that everybody’s got the ... has been sort of strengthened, rather than just dropping somebody in, because these people have chosen to work in these schools. (HAT (or equivalent), SC.17, Turn 176)

Implicit in the commentary is the notion that the issue with ‘hard-to-staff’ schools lies in the name, and that a collective focus from within the school community is part of the process of making a school ‘attractive’:

I think that we’ve been a real success story particularly in talking to some of the other HATs and I think that in attracting teachers ... other teachers to our school I think the way we’ve been able to share and collaborate and really get our school out there... through Twitter or when I’m presenting somewhere. (HAT (or equivalent), SC.20, Turn 176)

6.3.3 Summary for Evaluation Question 2(b)

The key requirement for attracting HAT (or equivalent) applicants to hard-to-staff schools was perceived to be the status of the role, i.e., making the role attractive enough that it would appeal to the aspirations of high-calibre personnel. A possible mix of considerations for attracting skilled staff would include:

- personal attributes that would support the transition to a ‘hard to staff’ context;
- motivation to focus on professional learning;
- a desire to empower individuals and communities;
- the ability to balance the management of difficult contexts and teaching and learning aspirations; and
- an appropriate financial incentive.

6.4 Evaluation Question 2(c): To what extent has the HAT (or equivalent) initiative been effective in achieving improved capacity and effectiveness of other teachers in ITQ NP hub and spoke schools (as well as in relevant Low SES NP schools)?

6.4.1 Introduction to Evaluation Question 2(c)

The following two extracts have been selected to highlight the collaborative dimension of the HAT (or equivalent) role within and across school contexts. Drawing on established relationships or developing new ones was perceived to be an essential ingredient in facilitating an agreed professional focus and, hence, a key aspect of the effectiveness of the initiative.

Because our HAT was the senior section coordinator [s/he] already had credibility and the authority and the relevance to staff. So therefore when [s/he] could say “OK we’re going to be doing this”, [s/he] could sit back and link it and say “That’s because as you all know in the Modern History program this is what’s needed to be done here, here and here”. [S/he] had enough positive relationship obviously with all the other senior coordinators in subject areas so [s/he] would draw those things together. (Principal, SC.22, Turn 82)

We’ve developed a learning community with our partner primary schools ... we’re scoping and sequencing, not from year seven to nine, but from years five to nine, you know? ... so there’s team teaching between primary and secondary teachers, because I believe they teach in a very, very different way, and I believe both have something to learn from the other. (HAT (or equivalent), SC.7, Turn 117)

6.4.2 Findings for Evaluation Question 2(c)

Survey participants were asked to indicate the impact of the HAT (or equivalent) across four areas related to improvements in the quality of teaching, support for teachers in their school and in cluster/other schools, and enhanced job satisfaction for teachers.

Participant’s responses are summarised below in Figure 6.3. The area of greatest impact was in terms of (ii) *improved support for teachers in your school* with 75.2% of respondents indicating that the HAT (or equivalent) role had impacted *Extensively* or *Considerably*. This compares with 66.9% of respondents providing similar ratings to (i) *improvements in the quality of teaching*. Only 32.4% of survey respondents saw the HAT (or equivalent) as contributing *Extensively* or *Considerably* to improvements in the quality of teaching in other schools.

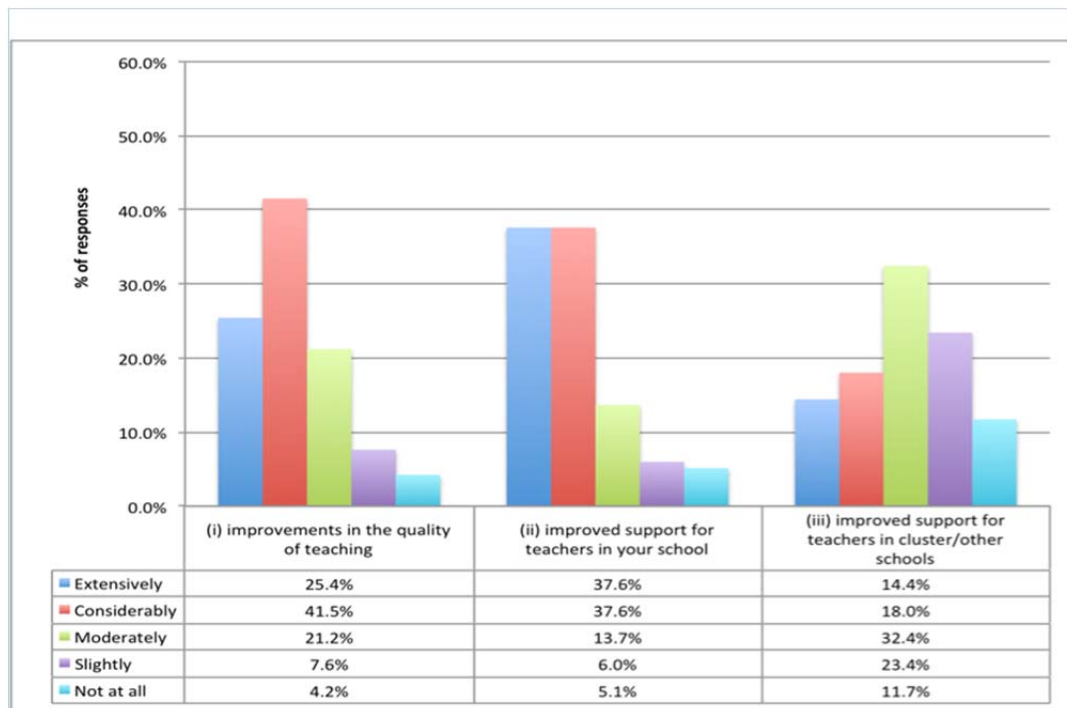


Figure 6.3: Perceived impact of the HAT (or equivalent) role

The following material is drawn from commentary obtained through surveys and site visit interviews and elaborates under two headings: *Improvements in the quality of teaching; and Support for Teachers within and across schools* the three areas represented in Figure 6.4. In particular, the second part brings together both the in-school and across-schools aspect reflecting the emphasis in the ITQ NP program on building networks.

6.4.2.1 Improvements in the quality of teaching

In the first of these areas, the discussions focused on strategies that were either facilitated by the HAT (or equivalent) or undertaken by teachers, and which supported the development of best practice. Specific strategies that were routinely employed by the HAT (or equivalent) included:

- mentoring;
- peer coaching;
- demonstration lessons;
- action learning projects; and
- team teaching.

Instances of enhanced practice reflected the emphasis on working together. These included teachers actively seeking professional learning opportunities, and conversations about teaching and learning becoming a routine part of professional practice. Also teaching that focused on pedagogical issues rather than behavioural issues became more common. Improved learning

outcomes were described in terms of student engagement, motivation and, in some instances, improved attainment data.

Whilst the commentary indicated that the HAT's (or equivalent) substantial skill base had the potential to inspire others to change, it also indicated that professional 'inertia' was the main barrier to improvement, and hence to the effectiveness of the role. Much of the Principal commentary about staff responses to initiatives, however, was linked to descriptions of professional growth, e.g., the paradigm shifts or the notion of taking "*people out of their comfort zone*" (Principal, SC.4, Turn 89). In referring to paradigms and comfort zones, Principals were addressing the need to rethink embedded practices, resistance to change and reluctance to participate. One approach, succinctly articulated by one Principal, was through "*supportive pressure*" (Principal, SC.16, Turn 184).

Relevant commentary from the Executive group indicated that this 'inertia' manifested itself in a number of ways that included:

- animosity towards the HAT (or equivalent) role on the part of particular groups within a school;
- whole-school resistance to change; and
- willingness of spoke schools to involve the HAT (or equivalent) in their respective leadership teams. (Assistant Principal, SC.13, Turn 70).

Reasons were provided for the differing responses to the role, mostly in terms of people being moved beyond their "*comfort zones*", (Head Teacher, SC.19, Turn 103). This movement in professional experience was described in terms of the manner in which initiatives were being delivered, the delineation of roles of responsibility and, in the case of a hub-and-spoke arrangement, the alignment of initiatives with an individual school's direction.

Across each of the groups interviewed, there was agreement about the features of needs-based professional learning that facilitated improvements. Principals particularised the operation of strategies within their schools that highlighted the important role of mentoring. The planning associated with three strategies in particular, namely team teaching, instructional rounds and peer coaching, provides insight into the processes whereby schools undertook capacity building of staff and, indirectly, the commitment of the Principals to support initiatives, e.g.,

... we're coming in with that peer coaching, of providing that effective feedback, just as the same as we need to do for students. It's no good saying "Yes, that's a ... you know, that's a B". You've got to show ... you've got to explicitly walk a student, how to go from here, to attain the next level, the same as you explicitly have to ... have to speak to staff and say "What are you doing is good and it would be even better if ..." and you start to lead them in the direction of that growth area. (Principal, SC.14, Turn 152)

Both experienced and Early Career Teachers identified four main areas of professional practice that they indicated would lead to improvements. These were:

- professional support;
- accessibility of the HAT (or equivalent);
- networks; and
- lesson observation and modelling.

Professional support was discussed in terms that acknowledged a range of attributes and actions proactively demonstrated by the HAT (or equivalent) and these included his/her:

- expertise;

- capacity for sustained organisation;
- focus on confidence building; and
- provision of professional learning.

Teachers' commentary reinforced the notion that their teaching had been developed through the professional learning organised, the positioning of their teaching within contextual and Professional Teaching Standards considerations, and having someone, i.e., the HAT (or equivalent) who had the dedicated time to focus on the sharing of expertise. The HAT's (or equivalent) available time and accessibility were evaluated highly by teachers, who indicated that the specific professional learning needs that they might seek aligned completely with the role and that were unlikely to be overshadowed by other priorities. One teacher, for example, commented:

"And I think staff realise [the HAT is] significant whereas if you're just kind of adding up on another load all the time you feel like you can't push those people when you need them, whereas knowing that [s/he] was the HAT you know well OK I can go and ask [her/him] this and then [s/he] knows [her/his] role too" (Teacher, SC.20, Turn 64).

Both experienced and Early Career Teachers indicated that the opportunity to have the HAT (or equivalent) in their classrooms – either teaching or as an observer, and the associated follow-up conversations provided a mechanism whereby they could take their teaching *"to the next level"* (Early Career Teacher, SC.14, Turn 128). The following comment reflects this developmental aspect.

So the observational lessons were really good. Then we met together once a week for an hour where as a team, so we had all the new graduates together, and we talk about just classroom practices, things we were doing in the classroom, things we found beneficial. ... So it was all that sort of professional learning, together with colleagues we got to do quite a bit of collegial planning, lots of team work where we planned together, we'd observe other teachers teach. We'd reflect ... (Early Career Teacher, SC.15, Turn 16)

An additional consideration concerning improved capacity and effectiveness of other teachers related to the demonstration of improvement of teaching in practice. In the commentary that related to the expression of improvement in practice, a recurring theme from Principals was professional growth. This is consistent with Principal commentary already referenced that articulated the need for supportive pressure, something which equated to taking people out of their comfort zones as an approach to rethinking and reflecting on embedded practices.

One Principal provided a succinct rationale for this approach:

I believe it's about showing staff what 'good' looks like. I think it comes right back to that. What does 'good' look like? And if staff haven't seen 'good', then they think ... they might think what they're doing and what they're doing could be good, but if they haven't seen how to do it differently and ... that actually gets better outcomes for students. (Principal, SC.14, Turn 256)

References to professional growth included:

- increased confidence through team teaching and lesson observations;
- development of leadership skills through mentoring;
- increased understanding about providing Standards-based feedback through peer coaching; and
- establishing a clear teaching and learning focus through collaborative planning.

In the commentary from the Executive group there was reference to five areas of enhanced practice. These areas related to:

- professional dialogue and collaboration;
- networking;
- planning;
- teaching and learning strategies; and
- professional growth and learning.

With professional dialogue and collaboration, reference was made to an 'opening up' of classrooms, sharing expertise and a greater readiness to seek and to accept advice from colleagues, all of which were perceived to contribute to a positive teaching and learning culture. The benefits to networking were described in terms of the affirmation of expertise, sharing of ideas and the provision of advice.

There was some commentary that made reference to the planning benefits of having a HAT (or equivalent) in the school, mainly around the notion of making actions more purposive, e.g., "*... the staff development days ... what I find really important about the HAT is that it's not filling the time slot, it's well what do we need as a staff. It's a needs basis which is so important*" (Head Teacher, SC.5, Turn 86).

A substantial part of the commentary addressed the enhanced professional learning and opportunities for professional growth that were facilitated by the HAT (or equivalent) initiative. Improvements in professional practice were described in terms of:

- skills acquired to demonstrate leadership;
- confidence gained to rethink approaches to teaching;
- collaborative support provided for new teachers;
- adoption of a clear teaching and learning focus; and
- affirmation of good practice as a result of increased understandings of the elements of quality teaching.

Two representative comments included:

It's good to see other people teach and to understand the elements of quality teaching. I think some people might misunderstand it, a way of telling us how to teach as opposed to actually a way of examining and exploring the successful things that we do. And I think it was very affirming of what I do, but also at the same time it focused me on different aspects of teaching which I can improve very quickly, very easily just by being aware of it. (Coordinator 1, SC.1, Turn 10)

It's given me a lens to evaluate where I was at as a teacher, see other people teach, pick up new skills, and new concepts within teaching. (Coordinator 2, SC.1, Turn 17)

Teachers identified four areas that contributed to enhanced practice, although one teacher summed up the improvement process as "*looking at what we're doing and working out what we could do better. So I think reflection's got to be the main key*" (New Scheme Teacher, SC.1, Turn 12). The areas identified related to:

- professional conversations;
- collaboration;
- lesson observations and modelling; and
- support.

Application of QTF in one school provided a context in which each of these areas were present, i.e., collaborative planning, lesson observation, sharing feedback and reflection to identify a professional learning focus. The commentary from the teacher involved in the QTF initiative

highlighted the intense teacher/teaching focus of the initiative. S/he made reference to a number of benefits that included:

- becoming informed about relevant trends in teaching and learning;
- having a 'lens' to apply to classroom practice;
- being able to identify areas of teaching strength as well as areas for further reflection; and
- having collaborative discussions about teaching practice.

Relevant extracts from the teacher's commentary are provided below.

But, once you actually got into our own little, you know, PLC [Professional Learning Community] with eight people, you know, you go through the professional readings, you talk about the trends that are out there ... you start to see how effective and how valuable it can be ... part is probably going to be, once you've taught your lesson, once you've been observed by your colleagues, the discussion that goes on after it. ... it gives you something that you can talk about, something tangible, a lens to look through, if you like ... (New Scheme Teacher, SC.1, Turn 40)

What I wanted to know was: What am I doing well? What do others perceive as my strengths? You know... from the work I'm putting in, what's most effective coming from that? and what... where can I save myself some time? and what should I focus on moving forward here, because that's not my strength, or this is? So, no, the discussion about what was and wasn't effective was valuable to me ... (New Scheme Teacher, SC.1, Turn 48)

I'm reflecting on my reflections, on someone else's reflections and it's all based on evidence as well, which is ... yeah, that's pretty undeniably valuable, which is good. (New Scheme Teacher, SC.1, Turn 82)

6.4.2.2 Support for teachers within and across schools

Reference was made at the beginning of the previous sections to strategies, such as mentoring, peer coaching and team teaching, which provided the context for "working with teachers to improve their professional practice and seeing the improved results for learners" (HAT (or equivalent), Survey 2, Comment 9.6-8). This comment draws attention to the frequently articulated sequential links between collaboration, enhanced professional practice and improved learning outcomes.

Collaboration was further discussed in the commentary as taking place at a number of levels, namely:

- individual teachers, e.g., working with Early Career teachers in the classroom;
- small groups, e.g., subject departments;
- whole school, e.g., establishing professional learning goals for teachers across career stages, and curriculum planning across Stages; and
- networks, e.g., where a content management system, such as Moodle, was used as a platform to link teachers and students.

Two particular aspects of collaboration – within and between schools, were articulated in the commentary. The first of these drew attention to the need for strong working relationships to be established if the focus on enhancing professional practice was to be sustained. Much of the commentary considered aspects of the school environment that were effective in providing a basis for improvement. A key aspect of the school environment was the person who facilitated improvements in professional practice and considerable commentary was devoted to attributes of the HAT (or equivalent) that were associated with effecting improvements. These included:

- credibility;
- expertise;
- professional involvement;
- communication skills;
- capacity to build relationships;
- organisational skills;
- building confidence in others; and
- collaboration.

Principals, for example, made reference to the HAT's (or equivalent) commitment, capacity for work, flexibility and patience. A dimension of the role that was frequently mentioned by Principals was credibility. Demonstration of this particular attribute was seen to be a necessary condition for staff to accept the person in the role. As commented by one Principal:

Highly Accomplished in what? ... You know again back to that role description and teachers sometimes can be, you know we can be quite odd animals. We need to know who's in charge and if it's not us then we need a good reason as to who it is and why they're there. (Principal, SC.22, Turn 82)

Credibility, which could be used as a proxy for effectiveness, was linked to whether or not school personnel perceived the HAT (or equivalent) to:

- *“have their finger on the pulse in all professional learning”* (Principal, SC.5, Turn54);
- be *“exciting educators”*, informed about current educational research (Principal, SC.16, Turn 188);
- have a whole-school perspective; and
- be able to communicate with staff at a practical level..

Above all, as clearly articulated by two Principals, there was a view that the HAT (or equivalent) needed to be able to develop productive intra- and inter-school relationships, something that was presented as being the single thing that can *“move things along or stop them from moving”* (Principal, SC.22, Turn 118).

Particular attributes of the HAT (or equivalent) that were enumerated by the Executive groups in schools included:

- capacity to work with staff;
- depth of knowledge; and
- preparedness to promote change.

These attributes were reported to be evidenced in the professional relationships established with staff that were described as 'supportive' and 'non-judgmental', and which *“brought out the best in staff”* (Assistant Principal, SC.4, Turn 99). For the most part, however, the HAT (or equivalent) was described as someone who could inspire people through his/her considerable expertise, e.g., *“... that lived and breathed pedagogy, and was just like an encyclopaedia of knowledge”* (Assistant Principal, SC.4, Turn 198).

The scope of the support provided by the person in the role is encapsulated in the following comments:

Well [the HAT or equivalent] had a great vision, particularly mentoring our, not only our New Scheme Teachers, but our ... more experienced teachers, particularly 'cause there's so many changes happening within education and the way we teach and the pedagogical changes. And [the HAT or equivalent] has been at the forefront in ensuring that we are

kept abreast of any new developments and we're current. (Assistant Principal, SC.15, Turn 14)

To have a HAT in the school is just enormous to me, it frees me up personally to really put some hard work into some of our most troubled students and that is just amazing, that's amazing that I can have the time now to really do something effective with some of our most disengaged, disaffected, behind-the-eight-ball kids. And to have a HAT that then takes on those other jobs and to do it so effectively is a big deal. (Assistant Principal, SC.18, Turn 228)

The second aspect of collaboration related to the outcomes of the focus on building strong working relationships, the main purpose of which was to enhance professional practice. The commentary provided by HATs (or equivalent) represented a particular insight into collaboration in that a composite picture emerged of the core business of their role. The various foci and activities represent an improvement agenda that involved contributions from individual teachers, groups of teachers, school Executive and Principals within and across schools.

Underpinning the improvement agenda was an emphasis on mutual advantage, a notion that is encapsulated in the following extracts:

I work across a number of schools, and at the moment I'm working in literacy, but in the past I've worked in literacy and numeracy, or whatever the focus of the school ... that can change depending on the needs ... with schools who've elected to come onto a particular project, I work in the school with them, I work alongside a lead teacher who's somebody who's been picked by the school as somebody who has leadership in literacy, and I work pretty much on their shoulder most of the time I'm in the school. I have meetings with the principal, so we sort of meet every time that I'm there. So once a week we have a meeting about where the school's going and, you know, what's happened in between my last visit, and all that sort of stuff, and we plan meetings, staff meetings ... (HAT (or equivalent), SC.17, Turn 14)

So some initially saw us as, well who are you to be a C4E and why aren't we that? And so initially there was some reluctance to be involved in the initiatives. So halfway through last year I organised a meeting with all the Principals and asked each of them just to share what their school had gained so far from being involved. And the Principal who initially was very reluctant, it just so happened that he was the last one to speak and he said, well, I can see that it wasn't a wise decision of mine to not be involved in it 'cause I can see how it's benefitted all of you, so I'm going to be more involved now. (HAT (or equivalent), SC.13, Turn 41)

The scope of the improvement agenda is provided by – but not limited to, the following indicators, which have been drawn from the HAT (or equivalent) commentary:

- providing support for curriculum-based professional learning needs;
- facilitating network meetings;
- developing partnerships;
- overcoming professional isolation;
- establishing professional learning communities;
- providing professional learning support;
- building relationships;
- overcoming staff reluctance and resistance to participate in initiatives;
- providing support for Standards-based professional learning needs;
- engaging in peer coaching and mentoring;
- facilitating collaborative planning and programming;
- working with teachers in the classroom – lesson modelling/observations;

- demonstrating pedagogical expertise;
- sharing practices across within and across schools; and
- facilitating professional conversations.

This 'snapshot' of the core business of the HAT (or equivalent) role represented an improvement agenda that subsumed the elements of mutual advantage, role flexibility, and effective relationships.

There was some commentary from Paraprofessionals that drew attention to observed changes in school contexts. One in particular related to the notion of school connectedness within a network of schools. The network had not existed prior to the HAT (or equivalent) initiative and it was observed that the establishment of a network resulted in shared professional learning opportunities, enhanced communication and collaboration between schools.

6.4.3 Summary for Evaluation Question 2(c)

Improved capacity and effectiveness of teachers was considered from two perspectives, namely, aspects of the school environment or people that provided a basis for improvement, and the way improved capacity and effectiveness were observed in practice. Considerable commentary was devoted to attributes of the HAT that were associated with improvements and these included:

- credibility;
- expertise;
- professional involvement;
- communication skills;
- capacity to build relationships;
- organisation skills;
- building confidence in others;
- collaboration; and
- approachability.

From the surveys, there was a high degree of consistency amongst responses that acknowledged the HAT (or equivalent) as integral to:

- improvements in the quality of teaching;
- improved support for teachers in the school;
- improved student learning outcomes; and
- enhanced job satisfaction of teachers and leaders.

Also from survey responses, four activities in particular were identified as embedded in the role, namely:

- modelling and demonstrating quality teaching to peers and others;
- supporting the quality of professional learning offered to teachers across the school/school cluster;
- working collaboratively with members of the school executive to plan and initiate whole-of-school teacher quality improvement strategies; and
- mentoring/coaching and supporting individual teachers to provide professional feedback.

Whilst the HAT's (or equivalent) substantial skill base had the potential to inspire others to change, it was also recognised that professional resistance to change was the main barrier to improvement. Across each of the groups, commonality was expressed about the features of

needs-based professional learning that facilitated improvements, namely, collaborative reflection that included:

- mentoring;
- coaching and team teaching;
- strategic feedback;
- focused conversations;
- networking;
- collaborative planning; and
- developing the repertoire of teaching and learning strategies.

Professional growth and intra- and inter-school connectedness were identified as two of the major outcomes of the HAT (or equivalent) initiative.

6.5 Evaluation Question 2(d): To what extent has the HAT (or equivalent) initiative been effective in achieving enhanced capacity of teachers to utilise student attainment data to help them more effectively meet individual student needs?

6.5.1 Introduction to Evaluation Question 2(d)

The first of the following two extracts makes explicit reference to setting and monitoring a very clear student learning agenda involving the use of attainment data. The second implicitly indicates the needs of teachers in utilising student attainment data. Taken together, the extracts highlight the importance of personnel with the necessary expertise and perspectives to articulate that agenda and to provide staff support for accessing, analysing and using student attainment data.

... here's the data, they're your students you're focusing on, there's your higher end, there's your lower end, here's the middle, set your target, set your goals and let's see where we're at half way through and at the end of the year. (HAT (or equivalent), SC.1, Turn 328)

... by modelling it, it really gave you [teachers] confidence to then go access the data, analyse your [their] own student data ... I'd probably say that for me the biggest thing was that the HAT made that data convenient for everyone to access. (New Scheme Teacher, SC.14, Turn 274)

6.5.2 Findings for Evaluation Question 2(d)

Survey 2 participants were asked to rate the importance of 'Working with performance data to improve learning practice' (see Figure 6.4).

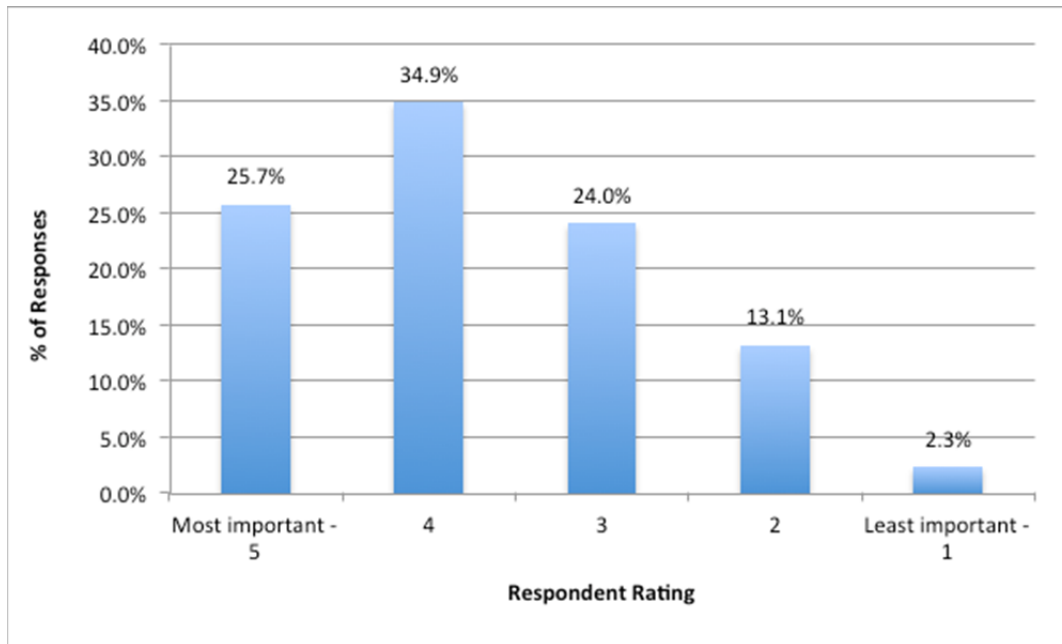


Figure 6.4: Ratings of Importance of working with performance data

More than 60% of respondents rated this improvement strategy as being *Most important (5)* or *4* on a five-point scale. Aligning evidence, whether it be at the school, staff or students levels, and professional practice was one of the recurring themes to emerge from the data concerning improvements in teacher capacity and the quality of teaching. Indicators of this alignment were to be observed in expressions, such as, ‘using evidence and data to inform planning’, ‘knowledge of students’, ‘data-driven planning’, ‘analysis of where students are at’, and ‘working with performance data to improve learning outcomes’.

The survey commentary indicated that student attainment data were primarily used to inform teaching, e.g., *“Using data to inform our teaching practice is a real driving force here ... which we have found has made a significant increase in student outcomes”* (HAT (or equivalent), Survey 1, Comment 4.7-25). Changed perspectives towards data usage were referenced in other commentary that noted how teachers began to regard it as helpful, rather than hindering practice. In addition, when teachers focused on evidence-based, data-driven learning and teaching, it was perceived that they gained deeper insights into how best to cater for students’ learning needs. These insights were presented as an essential precursor to improved academic performance.

In the provision of support for staff it was reported that the HAT (or equivalent) needed to demonstrate a capacity to operate at a number of levels to accommodate reluctant users of data, confident users of data and those who planned their teaching practice using a comprehensive range of indicators. Furthermore, it was reported that this demonstrated capacity needed to be applied within an overall approach of establishing a culture of sharing and collaboration.

The uniting effect amongst staff as a result of working with student data was a strong purpose theme running through much of the commentary, e.g., *“We collect data because it has purpose and it is going to improve student outcomes”* (Principal, SC.13, Turn 96); *“I will only be prepared to use that data to assist them [teachers]”* (Principal, SC.18, Turn 70).

Furthermore, it was acknowledged that there had to be someone in the school whose command of working with data was strong enough to facilitate understandings for the whole school

community. The commentary indicated that schools relied on the person in the HAT (or equivalent) role to provide this expertise, e.g.:

[HATs or equivalent] know the data inside out. They carry it with them, they live it, they breathe it, and they sit down with the principal, they sit down with the teachers, and they unpack the data. They have total snapshots of every school. We make sure they know, they mine the data, they get it out right ... we have models, our reports, they go out, they sit down there with the teacher, because if they don't come from an informed position, it's not worth coming from. (Principal, SC.17, Turn 62)

An important consideration that emerged in the commentary was that engagement with student data is part of the core business of staff in schools. An integral component of this core business was a feedback loop between teacher pedagogy and student results, facilitated by appropriate resources and collaboration, as a routine component of professional practice. The support and collaboration were reported to have built capacity, and the commentary indicated that much of this was provided by groups of people working together. The following extract from the one school is illustrative of this point view:

Another theme that is very much talked about in the school is knowing your students, using data, any data, any, anything, to know your student, to know who you have in your room and what they need. That's been a huge focus this year, on using the data. I think as a school we started, we jumped on the data bandwagon very early on and we have spent, wow this is my seventh year as a Deputy Principal and we have been on probably close to an eight year journey with data now where we have spent an enormous amount of time in-servicing our head teachers on the data that they need to be working with in their faculties. We bring everything back to data now. We're at that point now where every decision we make is data driven. (Deputy Principal, SC.18, Turn 128)

Three considerations concerning teachers' engagement with attainment data were identified in the commentary of HATs (or equivalent). These considerations, which represent differing levels of familiarity with the use of data, can be summarised as:

- relevance – working with data to increase staff familiarity with and awareness of its uses;
- insights – working with data as a tool to inform practice; and
- planning – working with data to implement strategies at a collaborative and/or whole-school level.

Relevance encompassed issues that HATs (or equivalent) represented as preventing staff from fully engaging with data and its uses. This was a level at which “*people just have to have their fears allayed*” (HAT (or equivalent), SC.14, Turn 503) and where data use was “*a massive eye-opener*” (HAT (or equivalent), SC.19, Turn 82) or prompted the realisation that there had been a shift over time to the current almost daily use of data to inform practice, “*you know looking at data every day is not the way school was probably done 20 years ago*” (HAT (or equivalent), SC.17, Turn 184).

In schools where staff routinely accessed and worked with different forms of data, HATs (or equivalent) reported a number of areas of practice that were enhanced by insights shared amongst colleagues “*with the time to be able to sit and trawl through all of that [data]*” (HAT (or equivalent), SC.5, Turn 52). Areas that were identified included:

- profiling students;
- identifying curriculum areas of weak performance;
- identifying schools goals and targets;
- undertaking gap analyses;
- identifying improvements;

- selecting improvement strategies; and
- obtaining feedback on specific programs.

Commentary concerning planning addressed the notion of consolidating the use of data to a point where schools (and teachers) can:

- assimilate a comprehensive range of indicators regarding student performance;
- have strong embedded practice around assessment; and
- make informed judgements about further teaching.

One HAT (or equivalent) posed the rhetorical question: “*without a comprehensive assessment system within the school, how do you measure those changes in student performance?*” (HAT (or equivalent), SC.4, Turn 73)

Teachers also discussed their enhanced capacity in the use of data at a number levels that addressed:

- establishing the relevance of data use;
- gaining confidence in the use of data;
- developing insights about student performance; and
- refining strategies for classroom implementation.

The commentary enabled the identification of a capacity continuum for data usage in which each of the levels indicated above is sequentially subsumed into the next. The key stages are relevance, access, reflection and application.

The following extracts illustrate the progression:

Relevance: We looked at the smart data and how to interpret that. At the time, for me, I don't think I saw the relevance of it ... I was teaching Year One at the time, and I think I didn't really understand why it had anything to do with me. (New Scheme Teacher, SC.16, Turn 144)

Access: ... by modelling it, it really gave you confidence to then go access the data, analyse your own student data ... I'd probably say that for me the biggest thing was that the HAT made that data convenient for everyone to access. (New Scheme Teacher, SC.14, Turn 274)

Reflection: The HAT showed us how to get right into it, analyse each question, and go from there ... Well we – I'm going back to my room then and when I was looking at my persuasive writing, it was more the spelling that we used in the language they were using, they weren't being explicit enough. (Teacher, SC.8, Turn 46)

Application: When we'd looked at our results and that's when [the Paraprofessional] came in, we were really emphasising on the words kids used, and the modality of the verbs and so forth. So, yeah, it was just well sequenced activity, which we all got from looking at work samples, and from the NAPLAN results. (Teacher, SC.8, Turn 48)

In terms of data use to meet individual student needs, Principals discussed strategies and training for staff that would position them to gain a clear understanding of groups of students, whether those groups be classes, ESL students or ATSI students. Members of school Executive as well as teachers also made reference to benefits at a class or curriculum level:

We've done a number of exercises this year where we put data in front of our staff, ask them to choose one of their classes and to form a data picture of that class, and that's been really, really useful. (Deputy Principal, SC.18, Turn 134)

Teachers' discussion of strategies to support student learning reflected one of two practices: collaboration between HAT (or equivalent), teacher and learning support staff; and the provision of feedback in different forms, such as, the use of a self-improvement matrix.

6.5.3 Summary for Evaluation Question 2(d)

Key considerations in the use of data were identified as:

- (i) its purpose, mainly to inform classroom practice and to develop an improvement agenda for both teachers and students; and
- (ii) processes to support teachers to engage with data, principally facilitated by the HAT (or equivalent).

In the provision of support for staff, the commentary indicated that the HAT (or equivalent) needed to demonstrate a capacity to operate at various levels. These levels needed to accommodate:

- reluctant users of data;
- confident users of data; and
- those who planned their teaching practice using a comprehensive range of indicators

within an overall approach of establishing a culture of sharing and collaboration.

6.6 Evaluation Question 2(e): To what extent has the HAT (or equivalent) initiative been effective in achieving improved student performance?

6.6.1 Introduction for Evaluation Question 2(e)

Collaborative professional practices and conversations, together with the purposeful use of feedback are highlighted in the following extract as elements that were perceived to be important antecedents of improved student learning.

[The HAT (or equivalent)] worked with teachers to develop strategies for different groups ... mentoring with the teachers and the feedback, providing information for them to provide for their students, the data analysis which was not just NAPLAN, and the others with their writing, they actually analysed writing samples and, "OK, these kids need to move here; these kids needs to be here; this is an area of weakness across the board," so there was that. So, yes, there was improvement for the students. (Deputy Principal, SC.8, Turn 146)

6.6.2 Findings for Evaluation Question 2(e)

Survey 2 participants were asked to rate the extent the HAT (or equivalent) role impacted on improved in student learning outcomes. The results reported in Figure 6.5 indicate that approximately 84% of respondents rated the role as having impacted *Extensively* to *Moderately* and 54.3% rating the role as impacting *Extensively* to *Considerably*.

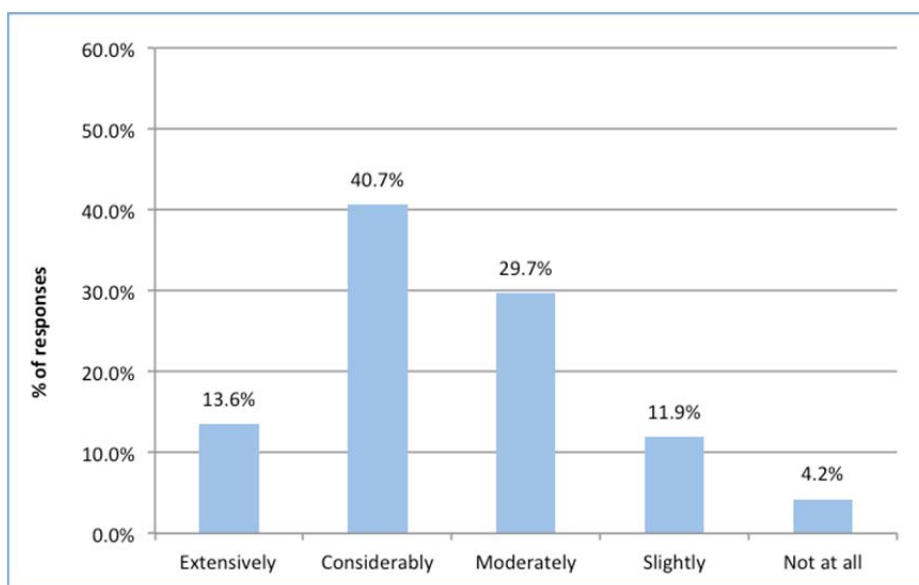


Figure 6.5: Perceived impact of the HAT (or equivalent) role on student learning outcomes

The perceived link between changes in professional practice leading to improvements in learning outcomes for students was reinforced in commentary that considered aspects of teaching, other than the use of attainment data. The particular aspects of practice that were identified in the commentary included:

- working collaboratively to develop quality teaching and learning programs;
- forming a network of dedicated colleagues to participate in peer coaching; and
- engaging in pedagogy-focused professional dialogue.

Pertinent comments relating to aspects of teaching that might lay the foundations for the purposeful use of attainment data, included:

I think the [HAT or equivalent] role improved teacher dialogue and confidence in their own teaching using a collaborative approach. Student learning focus became important rather than behaviour problems.” (HAT, Low SES NP, Survey 2, Comment 9.7-33)

A number of instances were provided in the commentary that referenced strategies, such as, team teaching, demonstration lessons and the analysis of student attainment data, e.g., NAPLAN data, as having a positive influence on student learning. Important considerations related to improved student performance were identified as the curriculum-specific and student-related strategies that a HAT (or equivalent) implemented to strengthen the teaching and learning environment. In addition, the commentary indicated that the role required a capacity to accommodate a range of stakeholder priorities that included:

- providing feedback;
- enhancing student engagement;
- promoting student confidence; and
- reflecting on attainment data.

The commentary from Principals provided a convenient reference point when considering improvements in student performance, since their whole-school perspective represents a key element of the HAT (or equivalent) role, which encompassed enhancing teaching and learning. Three considerations raised across the Principal commentary were:

- descriptive indicators of student learning that could be monitored over time and which included the provision of feedback, engagement, resilience and confidence;
- teacher practices, such as strategic questioning and ongoing reflection; and
- the role of student attainment data.

One Principal described a series of memorable lessons in which specific documented feedback using a range of formats, both physical and online, played a central part in providing evidence of learning. This feedback was provided at the levels of teacher to students, between students, and students to teacher. Elsewhere, a Principal stated emphatically: *“First and foremost ... I’d put student engagement ahead of student results”* (Principal, SC.21, Turn 126). The importance of engagement was a commonly presented view and was linked to enhanced metacognition as well as improved classroom productivity:

What we took ... all the feedback and the assessment, and the strategic questioning, and the dynamics of working how those things worked in a classroom, we wanted to bring that together so that actually if you had 30 kids in that room, 30 kids were thinking about it, 30 kids knew that they actually could have to orally respond to those things, and that you didn’t have four functioning, you know ten semi-functioning, and you know 16 waiting around to mimic the others as to when it came to the task time ... and you start to look at your productivity time. (Principal, SC.16, Turn 174)

If we don’t get to the core of getting kids engaged, my biggest concern is the number of kids that don’t want to be at school, and don’t like school, and that particularly increases in year nine. (Deputy Principal, SC.7, Turn 52)

Commentary from another setting, (SC.15), indicated that resilience programs were set up as a buffer between parental expectations about levels of achievement and the range of achievement levels embedded within the school’s formal reporting structure. In particular, the programs address the perception that there was only one level and that was excellent. The programs were further reported to support learning across the school in that they facilitated student engagement in problem solving and strategy development:

They all want outstanding and yet we don’t give them that so the child’s failed. That’s probably the key to this school. It’s about resilience. So resilience is bouncing back, but it’s also I can’t get this problem, well have a go. What strategies can you use? (Principal, SC.15, Turn 34)

The commentary from HATs (or equivalent) referred to observations of working with both teachers and students. In one instance of collaboration between teachers and students in two schools of distinctly different socioeconomic status and geographic location, the qualitative elements of student improvement were clearly articulated. These were:

- engaging students in their learning;
- the important role of feedback for students to self-audit their learning; and
- the need to set (high) learning expectations regardless of context.

The following extract represents the links between these three elements by indicating that articulating clear learning intentions for students established a common language that provided a basis for setting success criteria, for informing feedback, for setting expectations and for enhancing engagement:

We’ve had quite a lot of ongoing work around articulating learning intentions to students in language that they can access. Having success criteria evident and visual in the classroom, and feedback to students being related to that, all the conversations around the learning, and the expectations around the learning ... when I go into classrooms now, I

certainly see all the learning intentions are visible in the classrooms, and that wasn't the case at the beginning. I see success criteria communicated clearly to students. I can look at particular writing samples with teachers at times, and, and I'll see success criteria there, where the students are actually self-assessing. (HAT (or equivalent), SC.4, Turn 47)

Strategic questioning and ongoing teacher reflection of the intended and actual outcomes of student learning were also highlighted as core elements in the teaching and learning environment that support improvements in student performance. In many instances, teachers articulated a link between the focus on their own professional practice and the impact it was having, or might have, on student learning:

If I could take [a] 2009, 2008 assessment task, compare it with what I have now, totally different. I could even look at the examples of student work from that time, and the shift in what we're expecting out of kids. Like what I'm expecting out of Year 9s and Year 8s now is totally different to what I was expecting a few years ago, and I think across the whole school, our expectations of what the kids can do is a lot higher. (KLA Coordinator, SC.1, Turn 124)

A recurring theme across the commentary was the notion that teachers' expectations of students changed as a result of reflecting on professional practice, changes that they perceived would have a positive impact on student performance.

Student attainment data were highlighted as a priority in some contexts, with school personnel often providing a summary of impressive results as tangible evidence of successful student improvement, e.g., in NAPLAN testing, over successive years. These data were not only used as an indication of the learning that had taken place, they were also used to identify areas – both general and specific, that required attention. These data were often coupled with a whole-school initiative introduced by the HAT (or equivalent), such as the QTF, as an approach for addressing perceived areas of need.

Generally, however, there were passing references to changes:

- *"results in NAPLAN were amazing ... the improvement was phenomenal in one year"* (Early Career Teacher, SC.14, Turn 170);
- *"changes in the way that people are giving feedback ... You can see it in the kid's work"* (New Scheme Teacher, SC.14, Turn 160); and
- *"assisting us ... the kids have improved quite significantly"* (Experienced Teacher, SC.19, Turn 218).

All this is reflective of a process-oriented perspective as distinct from a product-oriented perspective. The commentary was more specific about the links perceived between aspects of student performance and the support strategies that were part of the various initiatives. In the following extract, feedback is the component of student learning, and there is a description of part of the process to support the enhancement of that component along with the benefit:

I think [the HAT (or equivalent) has] also shown different ways of presenting the material, so using the capacity matrix idea, where you, sort of, have ... the students, a list of activities that you're going to cover for a topic and then, the students can, sort of, work through those differently at their own pace. By having the matrix there, they can tick the box "Yes, I've heard of it" to start with, right up to the end of "I can explain it to someone" and those [feedback] tools have been really useful, I found by, sort of, managing behaviour, so I'm not actually having to get the whole class on task all the time. (Graduate Teacher, SC.5, Turn 37)

6.6.3 Summary for Evaluation Question 2(e)

Improved student performance was presented as being influenced by the curriculum-specific and student-related strategies that a HAT (or equivalent) implemented to strengthen the teaching and learning environment. In addition, the role required a capacity to accommodate a range of stakeholder priorities that included providing feedback, enhancing student engagement, promoting student confidence, and reflecting on attainment data.

6.7 Evaluation Question 2(f): To what extent has the HAT (or equivalent) initiative been effective in achieving sustainable improvements in teaching and learning through changes in school planning and management practices?

6.7.1 Introduction to Evaluation Question 2(f)

Capacity building was presented as one of the foundational aspects of sustainable improvements. HATs (or equivalent) in particular articulated this view and the following extract presents the perspective of one HAT (or equivalent) who, acknowledging the fixed-term nature of the role, perceived the role to encompass the development of shared responsibility amongst school personnel.

So I'm sort of withdrawing the support because they've ... so I've worked with them on how to plan staff meetings, and how to work with teachers in the classroom, and all that sort of stuff, so I can see gradually releasing that responsibility to them. I did a lot more modelling at the start, and then I've done a lot more teaming with them as time's gone on, and now I'm sort of, "Yeah, you've sort of got it up and running," ... I know other schools have put like highly accomplished teachers in schools, but if they get put in and then they get pulled out, well then they're gone. But if we work really closely side by side with the principal and the lead teacher, then we're building their capacity, as well as the teachers' capacity in the school, that they can then keep on keeping on, if that makes sense. (HAT (or equivalent), SC.17, Turn 24)

6.7.2 Findings for Evaluation Question 2(f)

Survey 2 participants were asked the extent that a range of activities was integral to the role of the HAT (or equivalent) and the extent that opportunities were available to undertake these activities. Their responses to these questions are summarised below in Figure 6.6 and Figure 6.7.

Participant's responses with respect to *(ii) Working collaboratively with members of the school executive to plan and initiate whole-of-school teacher improvement strategies* show that this aspect of the role is more highly valued than other activities with 91.3% of respondents seeing the activity as *Extensively* or *Considerably* integral to the role and 86.2% seeing rating opportunities to undertake the activity as *Extensively* or *Considerably*.

While respondents saw *(i) Modelling and demonstrating quality teaching to peers and others*, *(iii) Supporting the quality of professional learning offered to teachers across the school/school cluster* and *(iv) Mentoring/coaching and supporting individual teachers to provide professional feedback* as important aspects of the role providing *Extensively* or *Considerably* ratings of 93.9, 92.9 and 91.2% respectively, respondents saw less opportunity to undertake these activities with *Extensively* or *Considerably* ratings of 77.3, 78.7 and 78.0% respectively.

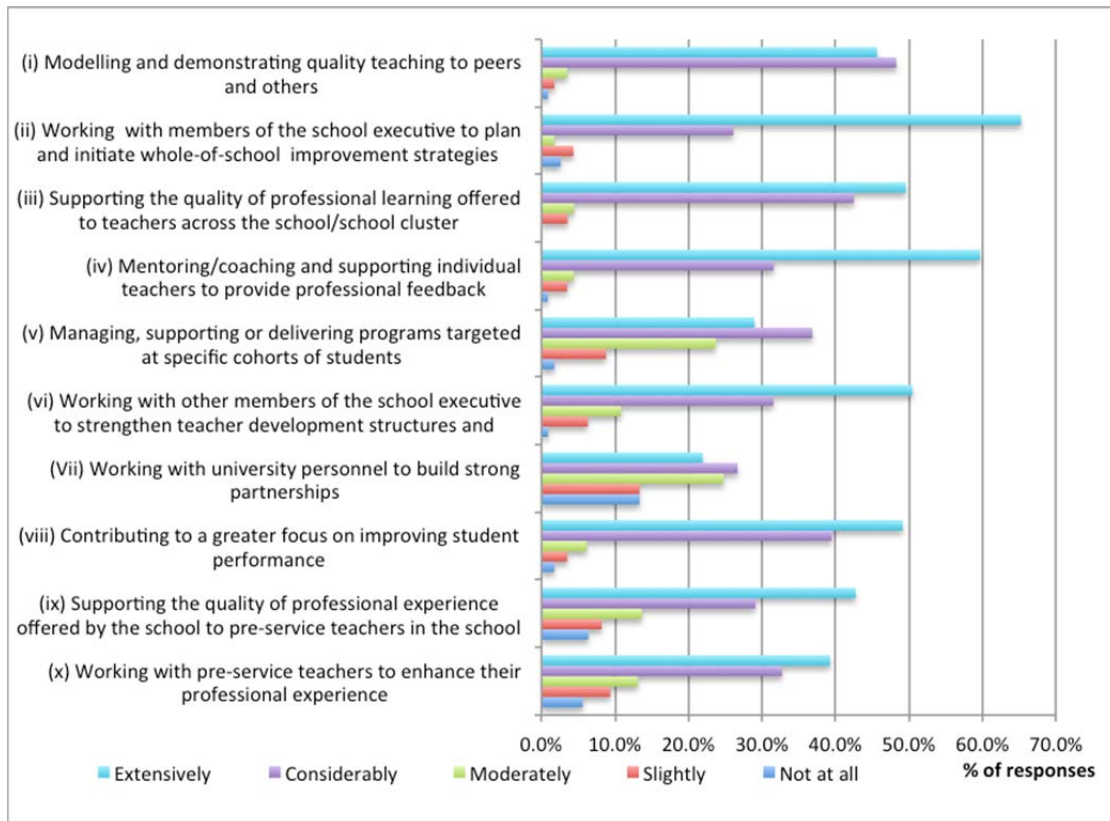


Figure 6.6: Extent activities are seen as integral to the HAT (or equivalent) role

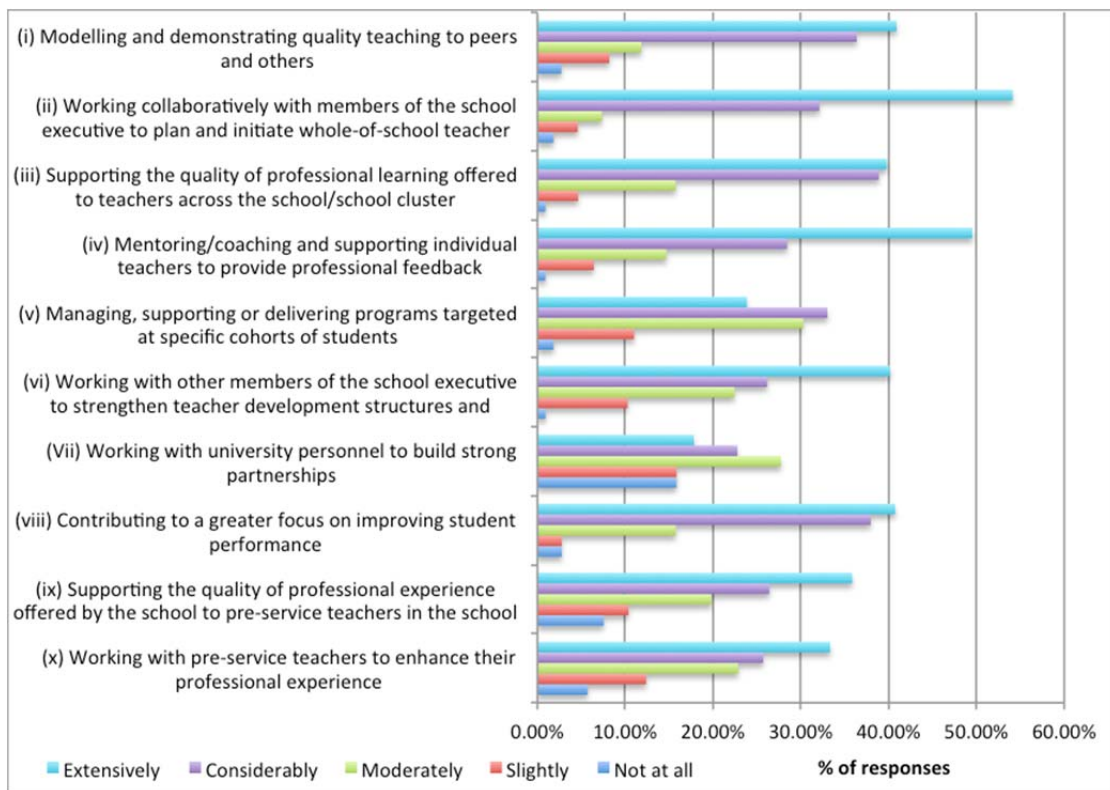


Figure 6.7: Extent opportunities are available for HATs (or equivalent) to undertake activities

An implication related to these percentages is if the opportunity to undertake a particular activity does not reflect the importance it has as part of a role, then it is reasonable to suggest

that sustainability of the role, and associated initiatives, are in question. This view may go some of the way to explain the priority given to the need to work collaboratively with members of the school executive.

Three planning considerations were consistently identified as contributing to sustainable improvements in teaching and learning. A useful working definition of sustainability was provided in one comment that referred to ensuring “*change processes were embedded in the school culture*” (HAT, Low SES NP, Survey 2, Comment 9.7-31). The three considerations were:

- (i) building on existing school practices;
- (ii) adopting a whole-school focus to professional learning; and
- (iii) having a person, i.e., the HAT (or equivalent), who had the autonomy and flexibility to work with teachers.

Much of the commentary highlighted that the HAT (or equivalent) role provided the opportunity for a school to develop a sustained focus on a key aspect of the core business of schools, namely, classroom-based, collaborative professional support. The commentary indicated that this focus was, in part, facilitated by the HAT’s (or equivalent) workload and timetabling flexibility. In addition, respondents indicated that the role stimulated:

- purposeful organisation of teaching and learning;
- positioned teachers to make improvements; and
- promoted the continued pursuit of professional learning as a routine component of professional practice.

A number of instances of collaborative professional support/learning were referenced across the commentary. Representative examples included:

- approaches to data usage, the purpose of which was presented as informing improvements in student learning outcomes. The HAT (or equivalent) broadened that purpose by facilitating a deeper reflection on assessment and monitoring schedules to the point where staff did not continue to do something routinely, but used the process to make refinements to practice and to gain feedback that was informative (SC.13);
- implementation of an online learning management system to create more engaging spaces for teachers and students, which streamlined existing practices by affording an enhanced focus on planning by teachers and feedback to students (SC.20); and
- collaboration, which included peer lesson observations, across primary and secondary school contexts to address apparent declines in students’ performance in mathematics during the Year 6-7 transition (SC.6).

The commentary highlighted the sustained facilitative role of the HAT (or equivalent) had the potential to bring people together within individual or collective school networks and to move them forward. The promotion of a shared vision (referred to as ‘collective capacity’) concerning school improvement and relationship building – both within and beyond the school – as well as consolidating strategies that could be taken up by others in a school were three additional planning and management outcomes identified.

The specific commentary concerning planning and management addressed one of two considerations, namely, processes and personnel. When discussing processes, respondents – mainly from the school Executive and HAT (or equivalent) groups – made reference to practices that were perceived to enhance sustainability. An implicit meaning given to sustainability was continuing identity of the HAT (or equivalent) role beyond the timeframe of the C4E initiative,

through processes, such as embedding practices within school plans, or through the enhanced capacity of existing school personnel:

A lot of things which were implemented through the C4E have made their way into our school management plan for 2012 through [through to] 2014 ... I mean if this was to be replicated again that's obviously really important for sustainability that it follows through, you know leading and managing the school ... our three [C4E] focuses are linked to the strategic priorities. (HAT (or equivalent), SC.14, Turn 577)

... we have got a HAT type position within it, but it's one of our staff members. Because we went for the sustainability, that if we got someone from our school, the end of this year they don't leave. So everything we've built up, the sustainability is still there. (Deputy Principal, SC.8, Turn 150)

Collaborative planning characterised much of the commentary related to processes. One assistant principal described the way in which planning for the implementation of initiatives was undertaken during existing timetabled meeting opportunities in order to avoid “*overburdening people outside school hours*” (Assistant Principal, SC.6, Turn 54). An implicit consideration here is that, in this context, overburdening people may not be conducive to sustainability.

Ownership was another process consideration that was articulated in the commentary and this was evident in both the planning for implementation of initiatives during which “*every teacher in the school had a say*” (Assistant Principal, SC.18, Turn 378) and the actual implementation of initiatives, as in the case of one school where a group responsible for developing support documents for all Key Learning Areas (KLA) in the school included active contributions from KLA representatives:

And the opportunity for that person to put the faculty perspective within that team and at least, there was a degree of apprehension ... when the program started, but I think people felt that they did have a little bit of a sounding board, that their voice was heard. (Head Teacher, SC.19, Turn 118)

Workload considerations were the focus of the commentary about the second planning and management consideration of personnel. A recurring point of view within the Executive group is encapsulated in the statement of one Deputy Principal concerning the HAT (or equivalent) role: *[it] enabled us to be able to have someone to be doing some of those things that we can't get to at times* (Deputy Principal, SC.7, Turn 50). In commentary elsewhere, “those things” were particularised as supervision of New Scheme Teachers and supporting students with needs:

I mean having a HAT in the school to do that, as a Deputy I would have no chance of doing that on a day-to-day basis, not in a school like ours. My job here each day is to deal with Facebook and you know community issues, large numbers of community issues that come into the school on a day-to-day basis. It is to work with the discipline side of things, it is to do, you know I manage the professional learning in the school and things like that. To have a HAT in the school is just enormous to me, it frees me up personally to really put some hard work into some of our most troubled students and that is just amazing, that's amazing that I can have the time now to really do something effective with some of our most disengaged, disaffected, behind the eight ball kids. And to have a HAT that then takes on those other jobs and to do it so effectively is a big deal, it really is a big deal ... (Deputy Principal, SC.18, Turn 228)

This extract conveys the notion that the presence of the HAT (or equivalent) role in these schools has afforded the opportunity for others to enhance their focus in areas that they perceive to be the priorities or core business of their respective roles. As is often the case, an alternative point of view will be presented and one Assistant Principal noted that the introduction of the HAT (or

equivalent) into the school caused some disquiet amongst the Executive on the basis of “*over stepping the mark of people’s areas of expertise and responsibility*” (Assistant Principal, SC.4, Turn 179). Although it should be added that this was one candid comment amongst many that affirmed the presence of the HAT (or equivalent) role.

Building teams, either to promote shared responsibility or to consolidate relationships within and beyond the school, was also presented as a key aspect of the personnel dimension of planning and management. Again, strengthened teams were presented as another approach being put in place to ensure that improvement initiatives continued to operate within the school independently of the HAT (or equivalent) role, e.g.,

We have worked on sustainability during the last 12 months, so [name deleted] who you’ll meet later will continue in the transition role, so the HAT jobs and responsibilities will not end. The ALARM [A Learning and Responding Matrix], the learning and responding matrix that we’ve all worked very hard to create will come to our staff meeting on the 19th as I say. That’s been taken up by [the] Head teacher, PE. It’s been taken up by our Head teacher, Social Science and a member of the literacy team, so they will deliver to the whole school, the essence of ALARM and get people to actually program during the rest of that day, embedding that idea into their lesson plans and units of work, so that will then continue. (HAT (or equivalent), SC.5, Turn 36)

This extract encapsulates what one HAT (or equivalent) referred to as “*collective capacity*” (HAT (or equivalent), SC.16, Turn 188), which, along with similar terms such as ‘collaborative professional support’, ‘shared vision’ and ‘building teams’, was perceived to enhance sustainability. Some of the specific activities facilitated by HATs (or equivalent) to consolidate collective capacity included:

- establishing teams of instructional coaches to work with teachers across the school (SC.3);
- drawing on curriculum expertise of individual members of staff in the school who could lead initiatives (SC.4);
- facilitating relationship building between the Executive within the school and outside organisations, e.g., universities, with a view to developing deeper understandings about key teaching and learning issues, such as student engagement (SC.13);
- undertaking collaborative professional learning across school networks (SC.13); and
- providing opportunities for staff to lead initiatives linked to the school management plans (SC.11).

Motivation was identified as another planning and management consideration: “*when the money runs out ... hopefully the teachers are now going to jump on board and run with these things*” (Assistant Principal, SC.8, Turn 106). In the case of motivation, the view was expressed that the capacity building activities associated with the HAT (or equivalent) role were synonymous with developing interest, engagement, motivation and knowledge in teachers.

The sustainability aspect of these activities was perceived to be in the motivation of teachers who, based on the experience of working with a HAT (or equivalent), would actively seek out information about aspects of their practice that included pedagogy, differentiated lessons or data use (SC.17). The implicit suggestion here is that role modelling and/or mentoring support are an integral part of sustaining improvements.

A key sustainability issue identified in the teacher commentary was one of how a school made the transition from having a defined HAT (or equivalent) role to not having a defined HAT (or equivalent) role. In most instances, teachers discussed the redistribution of the role to a similar

role in the school, such as a Head Teacher – Teaching and Learning, or a Quality Teaching Facilitator:

I can see that they're already tried to distribute roles to some Head Teachers. It will be a huge load for them to take on. I see that as an issue, but they've started to try and distribute some of those roles. (Graduate Teacher, SC.5, Turn 80)

And I think obviously now that the head teacher teaching and learning has taken on a lot of those responsibilities, obviously their original responsibilities are falling behind because they're focused on anything ... and even as good as the Head Teacher – Teaching and Learning is, they're not superman, you know, they can't do everything. (Early Career Teacher, SC.14, Turns 348-350)

6.7.3 Summary for Evaluation Question 2(e)

The HAT (or equivalent) role provided the opportunity for a school to develop a sustained focus on a key aspect of the core business of schools, namely, classroom-based, collaborative professional support. This focus was, in part, facilitated by the HAT's (or equivalent) workload and timetabling flexibility. In addition, the role stimulated purposeful organisation of professional practice and positioned teachers to make improvements and to continue to pursue professional learning as a routine component of professional practice.

The commentary indicated that the sustained facilitative role of the HAT (or equivalent) had the potential to bring people together within individual or collective school networks and to support the achievement of specified goals. The promotion of a shared vision (referred to as 'collective capacity') concerning school improvement, relationship building – both within and beyond the school, as well as consolidating strategies that could be taken up by others in a school were three additional planning and management outcomes identified.

6.8 Overall Summary for Evaluation Question 2

6.8.1 Evaluation Question 2(a)

The HAT (or equivalent) role:

- provided the opportunity for demonstrating leadership in the classroom;
- facilitated the building of a positive teaching and learning culture through professional dialogue within and across school networks;
- provided schools with a resource in the form of a person who could focus on the implementation of school improvement strategies; and
- was reported to enable the application of a broad skill set that was conducive to enhancing professional practice for individuals, teams and networks.

6.8.2 Evaluation Question 2(b)

- The HAT (or equivalent) role provided the opportunity for someone with the requisite skill set and aspirational goals to focus on teaching and learning issues that aligned with facilitating professional growth in others.
- Skills and attributes, motivation and a sense of community were needed considerations for the person in the HAT (or equivalent) role to meet the contextual priorities of a hard to staff school.

6.8.3 Evaluation Question 2(c)

The role of the HAT (or equivalent):

- contributed 'extensively' or 'considerably' to improved support for teachers and to improvements in the quality of teaching within the school;
- resulted in more effective career progression for beginning, early career and experienced teachers through coordinating mentoring, collaboration and classroom observations;
- was central to implementing an improvement agenda based on mutual advantage, role flexibility and effective relationships; and
- was responsible for building teaching and learning cultures that promoted confidence, opened up classrooms and encouraged teachers to develop best practice.

6.8.4 Evaluation Question 2(d)

There was significant evidence concerning the contribution of HATs (or equivalent):

- to improve the capacity of teachers to use student attainment data effectively;
- to provide professional learning that acknowledged different levels of staff engagement and/or facility with data usage; and
- to enhance staff capacity within one or more of four areas related to data usage: relevance, access, reflection and application.

6.8.5 Evaluation Question 2(e)

- Initiatives facilitated by the HAT (or equivalent) were reported to have a positive influence on student retention and learning outcomes.
- Strengthening the teaching and learning environment was perceived to be a pre-cursor to achieving improved student learning outcomes.
- Increased teacher reflection, high teacher expectations, increased student engagement, and better feedback were regarded as essential ingredients in achieving improved student learning outcomes.

6.8.6 Evaluation Question 2(f)

Key considerations for sustaining improvements involved the HAT (or equivalent):

- effecting school and staff culture positively through modelling and demonstrating quality teaching, supporting the quality of professional learning, establishing collaborative networks within and between schools, working collaboratively with members of the school executive, and mentoring/coaching and supporting individual teacher;
- being the catalyst for achieving 'collective capacity' within a school by enabling others to focus on the core business of their roles; and
- reflecting on existing practices and processes, adopting a whole-school focus for professional learning, and addressing contextual needs within and across schools.

7 HAT (or equivalent) Theme – Attributes

7.1 Introduction

This Chapter addresses the third Evaluation Theme that considered the role of the Highly Accomplished Teacher (HAT or equivalent). This Theme comprised three question parts that considered the attributes of the person undertaking the role. The Evaluation Theme, together with its respective questions, are:

Highly Accomplished Teacher Theme (Attributes), Evaluation Question 3: How is the role of the HAT (or equivalent) defined by characteristics that include:

- a. their qualifications, work experience, professional backgrounds and career ambitions;
- b. the reasons they applied to become a HAT (or equivalent) and whether aspirations have been realised; and
- c. their perception of their roles and the impact they are having in both hub and spoke schools, as well as in relevant Low SES schools, on teacher capacity and quality as well as student performance?

7.2 Evaluation Question 3(a): How is the role of the HAT (or equivalent) defined by characteristics that include their qualifications, work experience, professional backgrounds and career ambitions?

7.2.1 Introduction to Evaluation Question 3(a)

The following extract highlights three key elements that have the potential to position the HAT (or equivalent) to undertake the role effectively, in terms of the scope of this particular evaluation question. Those elements are the prior experience, which aligns with the strategic level at which they might operate, the engagement in collaborative practice that is associated with mentoring and which has the potential to inform much of the HAT's (or equivalent) role, and a clear professional focus on sharing successful classroom practices.

[the role has] used everything I've ever learnt and I'd relieved a bit as an AP so I'd had some leadership experience but not permanently. But I'd done a lot of mentoring I guess just in my normal classroom role of the teacher next door and I'd had quite a few prac students. So I already knew that I enjoyed leading others in their teaching and sharing what I'd experienced myself in terms of what's successful in the classroom. (HAT (or equivalent), SC.13, Turn 82)

7.2.2 Findings for Evaluation Questions 3(a)

Survey participants were asked to record a range of demographic data including their qualifications (see Figure 7.1). The graph reports on the distribution of qualifications of school staff responding to the survey.

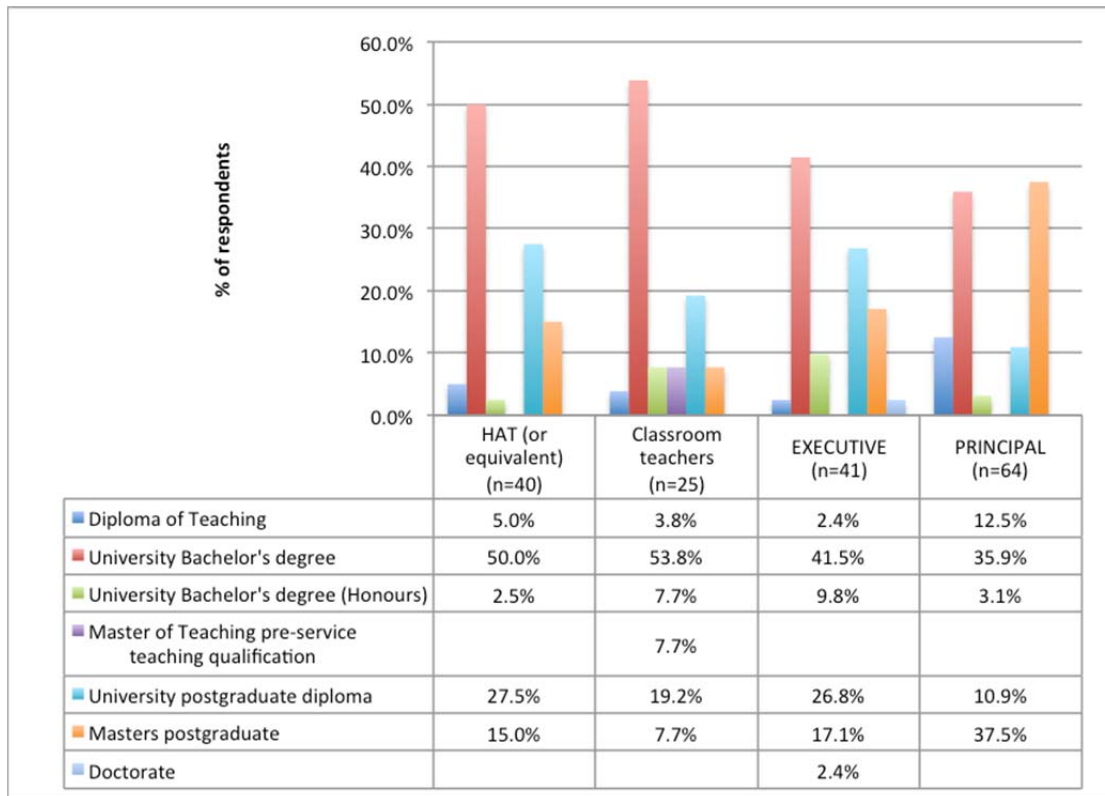


Figure 7.1: Qualifications of respondents

These data indicate that the distributions of qualifications held by HATs (or equivalent) are similar to those of classroom teachers or school Executives. However, the distribution of qualifications held by Principals responding to the survey appears to be different to those of all other categories of school staff. The correlation coefficients of these distributions are reported in Table 7.1

Table 7.1: Correlation Coefficients distribution of qualifications by school position

	HAT (or equivalent)	Classroom teachers	EXECUTIVE	PRINCIPAL
HAT (or equivalent)		0.95	0.97	0.52
Classroom teachers	0.95		0.93	0.51
Executive	0.97	0.93		0.52
Principal	0.52	0.51	0.52	

As representative of experience, background and ambitions, a recurring feature of the commentary was reference to attributes and/or skills that were brought to the role, or which were developed in the role. Principals and members of school Executive regularly articulated these skills. The list included personal attributes, such as, the HAT (or equivalent) needing to have:

- *“that passion and that drive to really want to make a difference”* (Principal, SC.13, Turn 120);
- *“self-pride in doing a really good job”* (Principal, SC.4, Turn 28);
- *“openness”* (Principal, SC.18, Turn 60); and
- *“someone who’s [a] motivated, self-starter”* (Principal, SC.18, Turn 18).

Specific skills that were identified as being integral to the role covered three main areas. The first of these related to professional knowledge or expertise. HATs (or equivalent) were depicted as *“subject expert[s] ... understanding what makes a difference in the classroom”* (Principal, SC.9, Turn 77) with a strong command of what they were talking about in order to establish their credibility. That expert knowledge also encompassed *“a good understanding of the whole standards and how the Institute works”* (Principal, SC.19, Turn 94).

A second, related area concerned the manner in which the HAT (or equivalent) communicated with staff. The skills that were evaluated highly were well-developed interpersonal skills, the ability to work with others and the capacity to engage people. Representative comments included:

- *“(HATs) have to develop lots of skills, not just with curriculum but interpersonal skills”* (Assistant Principal, SC.6, Turn 104),
- *“she just has this good relationship with the staff”* (Assistant Principal, SC.4, Turn 99) and
- *“I consider the most important element of the HAT position is working with our people”* (Executive, SC.13, Turn 62).

Additional valued attributes articulated in the commentary included persuasiveness, encouragement, and being able to discuss the role and what they were doing with clarity.

The third area that was presented in the commentary as being integral to the role was the capacity to build relationships, both within and outside the school. Perspectives that were referenced in the commentary as being important parts of building relationships were having an across-school, global perspective (SC.14) and being informed about *“all kinds of professional learning”* (Principal, SC.5, Turn 54).

HATs (or equivalent) also indicated that they *“brought a lot to the table and learnt a lot from it at the same time”* (HAT (or equivalent), SC.5, Turn 34). The core set of skills that particularised HAT’s (or equivalent) existing practice were reported to include:

- expertise in curriculum and pedagogy;
- knowledge of student learning;
- contextual knowledge;
- leadership in teaching and learning;
- relationship building;
- people management; and
- mentoring.

Skills that HATs (or equivalent) indicated they developed whilst in the role included:

- relationship building;
- networking;
- leadership in teaching and learning;
- reflective thinking; and
- alignment of professional practice with teaching standards.

The comments indicated that the role prompted professional reflection, as well as contributing to the consolidation and development of HATs’ (or equivalent) skills in perceived areas of expertise and, above all, where interpersonal skills were concerned:

I’ve learnt so much through this and it’s used everything I’ve ever learnt previously in terms of my pedagogy knowledge, knowledge about how kids learn, leadership skills,

interpersonal skills, it's all ... I've had to use everything I have in this job, and it's developed me in all those areas as well. (HAT (or equivalent), SC.13, Turn 57)

Particular skills that teachers cited included HATs' (or equivalent) ability to:

- explain and communicate;
- align professional learning with teacher need; and
- draw on a range of resources and experiences.

Support was described in general terms, e.g., “[s/he] *manages to help us get there*” (Early Career Teacher, SC.4, Turn 164), as well as in specific terms, e.g., “*within the resources [s/he] gives us, well there's always a different number of ways of adapting it*” (Experienced Teacher, SC.19, Turn 80). An Early Career teacher commented:

I think [s/he]'s made me the teacher I am today. I had, I didn't have any experience. I think uni prepares you as well as they can ... but I think having the experience in school, having [the HAT] there to support and guide and, you know, facilitate, I guess, my, my teaching, and the development of my teaching, I think that's been crucial. (Early Career Teacher, SC.4, Turn 50-52)

The support dimension of the role was also reinforced in the commentary of paraprofessionals, e.g.,

[The HAT (or equivalent)] being there just to guide and support my role helped me a lot. Especially in those initial stages of even things like going into the classrooms with the students, that was something that I didn't have a lot of experience in, so having someone there to give me those pointers ... moving into her/his classroom and seeing, on a day to day basis, how [s/he]'s using technology, so that I can then take that information and share it amongst our other teachers as well. (Paraprofessional, SC.15, Turn 64)

The ability to work with, engage and get the best out of staff was presented as being one of the main strategic benefits of having a HAT (or equivalent) in a school. In the words of one Principal, “*to have those people [HATs (or equivalent)] where it really matters, to be able to move a school forward [is beneficial]*” (Principal, SC.13, Turn 85). The strategic focus highlights the collaborative dimension of the role, which was referenced in much of the commentary in the way different groups spoke about HATs (or equivalent) who:

- tailored professional learning;
- mentored of new teachers;
- networked with peers and colleagues;
- identified skills in others that could be shared with the whole school;
- facilitated free-flowing dialogue amongst staff; and
- shared teaching practices.

Commentary from HATs (or equivalent) reinforced the observation that interpersonal skills were both a requirement of, and further developed in, the role. A recurring perspective was the way in which HATs (or equivalent) described how they went about creating an environment that was conducive to consolidating and/or enhancing professional practice of others. Frequently used indicators of how this was achieved included ‘conversation’, ‘discuss’, ‘talk’, ‘sit with’, ‘actively seek advice’ and ‘work closely with’, e.g.:

I sat there and I watched this very young teacher teach. Her expectation of that class was so low that I was very concerned. They were completely compliant, they were interested in what was going on, but they were bored ... afterwards I framed a series of questions in a conversation with her afterwards, and made some suggestions about what she might consider doing differently ... there was a lot of activity, the kids were busy, but there was

not a lot of complexity in anything that they were doing ... the teacher looked at me as if the scales had fallen from her eyes, and said, "What, I would be allowed to expect more of them?" (HAT (or equivalent), SC.3, Turn 66-68)

Endorsement of the HAT (or equivalent) role in schools was articulated in commentary suggesting the HAT (or equivalent) role provided the resources – in the form of a person and time, to support a school priority that, in some instances, had not found full expression:

My time is soaked up by administrivia and discipline that my real passion is exactly the HAT role that was undertaken here. And to have tried to do even remotely the amount that was done by [name deleted] over the last three years something would have gone by the wayside. (Deputy Principal, SC.19, Turn 80)

In addition to the enhancement of practice in others that characterised the role, HATs (or equivalent) drew attention to ways in which school functioning was enhanced. Strategies that were identified in the commentary included identification of areas of school need and subsequent facilitation of collaboration with outside experts and/or school networks or leading whole-school planning. Having regard for a school's teaching and learning interests was presented as a multi-faceted undertaking, as described by one HAT (or equivalent) who indicated that s/he was:

... in charge of teacher accreditation, I'm in charge of grants, action research, practitioner reflection, professional development and review, like an appraisal system. (HAT (or equivalent), SC.3, Turn 112)

7.2.3 Summary for Evaluation Question 3(a)

Hats or equivalent brought a range of skills and professional influences to the role. The skills encompassed three main areas of:

- professional expertise or credibility;
- communication with a range of stakeholders; and
- capacity to build relationships.

Skills that found expression in the role were reported to include those acquired in previous roles, skills that might facilitate collaboration, such as interpersonal skills, classroom pedagogy skills, the ability to liaise with a range of professionally based organisations, and well-developed communication skills:

- previous roles held – Assistant Principal; subject coordinator; professional learning coordinator; action research coordinator; literacy facilitator; professional development and review coordinator; practitioner reflection coordinator; transition learning programs coordinator;
- collaboration skills – interpersonal; leadership; mentoring; people management and communication;
- particular classroom skills – catering for students with special needs; catering for disengaged students;
- contact with the profession beyond schools – subject specific consultancy; syllabus writing; subject associations; NSWIT; and
- contact with the school community – extensive contextual knowledge; working with parents.

HATs (or equivalent) identified a number of influences that they regarded as important in shaping their current professional perspective, namely, ongoing personal professional learning,

being both a mentor and a mentee, experiencing a range of teaching and learning contexts, maintaining contact with student learning, and engaging in professional networks:

- professional focus and commitment that made reference to personal professional growth and the importance of remaining informed;
- working with peers, which involved discussion of mentoring from both the mentor and the mentee perspective;
- new contexts and roles, which encapsulated the notion that the person in the HAT (or equivalent) role has the motivation to transfer skills and expertise across contexts;
- teaching and learning, which highlighted the importance of engagement to support improvements in student learning; and
- practices beyond the school, whereby involvement with external organisations played a part in the affirmation of professional strengths or attributes, such as, subject expertise.

The role was reported to prompt deep reflection about professional identity and career transitions, in which a key consideration was the choice between becoming a Deputy Principal or looking for opportunities to consolidate the opportunities experienced in the role.

7.3 Evaluation Question 3(b): How is the role of the HAT (or equivalent) defined by characteristics that include the reasons they applied to become a HAT (or equivalent) and whether aspirations have been realised?

7.3.1 Introduction to Evaluation Question 3(b)

The opportunity to work with colleagues within and across schools and to make a difference in teaching and learning practices were commonly cited reasons amongst those given by HATs (or equivalent) for taking up the role. Both of these reasons are expressed in the following extracts, the second of which highlights the notion that the associated professional learning is a proxy for realised aspirations.

I feel I can make the biggest difference in working alongside teachers to improve everybody's learning. (HAT (or equivalent), SC.17, Turn 160)

When I put my hand up for this role, which was prior to this project, obviously, because I was already employed here, I was an Assistant Principal, as I said, and I was in a coaching role, and when I saw this role come up I thought I had the chance to do this across more schools, so that I could I guess make a bigger difference than I was making in my own school. Like, sort of raise the bar with my own teach ... like the teachers at my own school, and had that, so I could go to another school and do the same there, but this way I get to work across multiple schools ... And the learning that you get, which I didn't realise you'd get quite as much learning as you get in the role. (HAT (or equivalent), SC.17, Turn 212)

7.3.2 Findings for Evaluation Question 3(b)

HATs (or equivalent) specified three main considerations that influenced their decision to apply for the role and these were related to:

1. working with colleagues;
2. professional motivations; and
3. improving outcomes for students.

Working with teachers to improve teaching and learning. There were slight variations in the way HATs (or equivalent) expressed this priority, but the opportunity to share best practice and engage in whole-school professional learning were at the heart of their commentary, e.g., *"I feel*

I can make the biggest difference in working alongside teachers to improve everybody's learning" (HAT (or equivalent), SC.17, Turn 160).

With reference to an implicitly articulated improvement agenda, HATs (or equivalent) indicated that they wanted to see:

- improvements in teacher quality;
- improved opportunities for teachers and students;
- improved teacher confidence; or
- support for teacher improvement.

The following extracts from HATs (or equivalent) discussing their role encapsulate the notion that a major motivating consideration was to see improvements taking place at the whole-school level. The first extract also makes reference to the idea of realised aspirations, albeit in a formative way, by acknowledging that much was still to be achieved.

The role of HAT, whilst having been an enormous challenge, has been the opportunity to have a great impact on the teaching and learning practices across the school. During the 3-year position, the role has become so integral to the practices of the school, that I believe it will be an enormous loss. Although significant change has occurred during this time, there is still much to achieve. My aspiration is to remain in this position in order to continue to manage the whole school [and learning community] programs, which have been established and are providing improved opportunities for staff and students. (HAT (or equivalent), Survey 2, Comment 5.10-17)

As a HAT the most satisfying aspects were being able to supply teacher support in a variety of ways from 1:1 to small group to whole school. Being able to share best practice across the school and the network of schools was also gratifying. (HAT (or equivalent), Survey 2, Comment 9.6-20)

In general though, in line with the second extract, HATs (or equivalent) articulated a sense of satisfaction in being able to undertake teaching and learning projects, and to have the time and resources to “*see them through to fruition*” (HAT (or equivalent), Survey 2, Comment 9.6-19) and to receive affirming feedback:

The audible buzz when groups of students or teachers from across the learning community have when they are learning together. (HAT (or equivalent), Survey 2, Comment 9.6-12)

The most satisfying role for me was peer coaching staff and working with New Scheme Teachers and see the professional growth of such staff over the two years and seeing them sustain their improved pedagogy was a highlight for me. That experience has been the most rewarding experience of my teaching career. (HAT (or equivalent), Low SES NP, Survey 2, Comment 9.6-30)

HATs (or equivalent) expressed general agreement that the role was rewarding in terms of professional learning opportunities and the associated feedback. Representative comments included:

The HAT position has been brilliant, probably the best job I've ever had, because it's been able to allow me time to sit with people who are struggling with the things that I find easy ... (HAT (or equivalent), SC.5, Turn 32)

I really appreciated having the time to see, not just our school, across the school, but also other schools as well and to ... to share that best practice with those Teachers ... and to support the New Scheme Teachers as well, was really, I thought, rewarding and to ... also the working with the APs, I found really rewarding. (HAT (or equivalent), SC.15, Turn 209)

In terms of professional motivations, a recurring theme within the commentary that reflects the main reason for taking on the role is the notion of professional growth, at the individual level and for others through professional collaboration.

HATs (or equivalent) expressed numerous distinctly different motivating factors for taking on the role and each of the following instances of these 'drivers' reflect multiple approaches to enhancing teaching and learning:

- (i). the opportunity to apply skills and/or contextual knowledge, e.g., *"I've been mentoring for years with my class and Grade ... this is that next level that allows me to do it in a more focused and meaningful way"* (HAT (or equivalent), SC.15, Turn 194);
- (ii). the opportunity for ongoing learning, e.g., *"personally I feel that I've got so much to learn"* (HAT (or equivalent), SC.1, Turn 461); and
- (iii). strong personal convictions, e.g., *"I love professional learning (HAT (or equivalent), SC.15, Turn 197) and I feel giving back to the profession ... is essential, and I've worked in schools that aren't as richly resourced as [name deleted], and I think schools like [name deleted] have a role to play"* (HAT (or equivalent), SC.3, Turn 101).
- (iv). Wanting to make a difference, e.g., *"Thought I could make a difference with less advantaged children."* (HAT (or equivalent), Survey 2, Comment 5.10-16)
- (v). Building on the encouragement of inspiring role models, e.g., *"I had a few great teachers and I had a few very poor teachers, and I wanted to be one of the greats."* (HAT (or equivalent), Survey 2, Comment 9.5-30)

Most of the comments related to improving student outcomes were made in the context of working with teachers to support students learning, e.g., *"My mantra is, 'A teacher has the power to get a child out of bed like nobody else'. If the kid really wants to come to school, thank the teacher"* (HAT (or equivalent), CD.11, Turn 149), *"the attraction, for me, ... [was] about quality teaching and about impact on student outcomes"* (HAT (or equivalent), SC.15, Turn 205), and

Assisting every child to reach their potential. Every one can be good at something and a good teacher will help them find it. Having a class that kids want to come to and learn." (HAT (or equivalent), Low SES NP, Survey 2, Comment 9.5-27)

7.3.3 Summary for Evaluation Question 3(b)

In terms of the motivational and perceived professional rewards of the HAT (or equivalent) role, there were three main reasons that HATs (or equivalent) reported as influencing their decision to apply for the role and these were:

- (i) opportunities for collaboration with others to improve teaching and learning;
- (ii) professional motivations to apply skills acquired, to engage in ongoing professional learning and to give to the profession; and
- (iii) the desire to improve student learning outcomes.

HATs (or equivalent) expressed general agreement that the role was a rewarding one in terms not only of opportunities, but also in terms of professional feedback.

7.4 Evaluation Question 3(c): How is the role of the HAT (or equivalent) defined by characteristics that include their perception of their roles and the impact they are having in both hub and spoke schools, as well as in relevant Low SES schools, on teacher capacity and quality as well as student performance?

7.4.1 Introduction to Evaluation Question 3(c)

The following extracts from HATs (or equivalent) highlight four core aspects that, in their view, have characterised the role, namely, its teaching and learning focus, its whole-school (or network) scope, its facilitative dimension, and its attention to consolidating existing quality practices.

[The HAT role is] *the focus keeper*. (HAT (or equivalent), SC.14, Turn 531)

A HAT has to be whole school. (HAT (or equivalent), CD.12, Turn 417)

I've been the driving force for all the things that have happened, but ... it was a collective action by the whole staff. (HAT (or equivalent), SC.5, Turn 8)

I saw around me that there were excellent Teachers who had fabulous quality programs and I wanted to be able to tap into that and to support those Teachers. It was never about me; it was about me being really passionate about the fact that I see all these teachers around and how are we supporting them and what are we doing to value that? (HAT (or equivalent), SC.15, Turn 82)

7.4.2 Findings for Evaluation Question 3(c)

Perceptions of the HAT (or equivalent) role highlighted three key considerations, namely, credibility, expertise and focus. Aspects of credibility articulated in the commentary included HAT's (or equivalent):

- professional status, e.g., with the New South Wales Institute of Teachers (NSWIT) through the accreditation process;
- their ability to establish and maintain effective working relationships, e.g., *"the schools [in the network] have a better working relationship as a result of the foundations laid through the HAT role"* (HAT (or equivalent), Survey 2, Comment 9.7-10); and
- feedback received from colleagues, e.g., *"feedback via surveys and verbally from pre service teachers ... they express feeling far more 'grounded'"* (HAT (or equivalent), Survey 2, Comment 9.7-15).

Of these three aspects, HATs (or equivalent) repeatedly depicted the role to be one that embodied support and the collaborative building of relationships to enhance teacher practice within and across schools. Three succinct defining statements from HATs (or equivalent) about how they perceived the purpose and scope of the role are provided as an initial reference point: *"it's the focus keeper"* (HAT (or equivalent), SC.14, Turn 531), a *"HAT has to be whole school"* (HAT (or equivalent), CD.12, Turn 417) and *"I've been the driving force for all the things that have happened, but ... it was a collective action by the whole staff"* (HAT (or equivalent), SC.5, Turn 8).

The way in which the role was described also provided an indication of:

- (i) what was done, e.g., *"the HAT role was able to support teachers in a practical way at their stage of development"* (HAT, Low SES NP, Survey 2);

- (ii) how the HAT (or equivalent) undertook the role, e.g., “*peer coaching staff and working with New Scheme Teachers*” (HAT, Low SES NP, Survey 2, Comment 9.6-30); and
- (iii) outcomes associated with the role, e.g., “*I think the role improved teacher[s]’ dialogue and confidence in their own teaching using a collaborative approach*”, (HAT, Low SES NP, Survey 2, Comment 9.7-33).

Expertise was discussed in terms of particular teaching and learning models, and/or strategies, which informed how HATs (or equivalent) structured professional learning as part of the role. These models and strategies included:

- the application of the QTF;
- quality improvement tools, such as capacity matrices to support student learning; and
- peer coaching to support teacher pedagogy.

The focus of the role, and hence its potential impact, can be summarised from the HAT (or equivalent) commentary as the provision of support for professional learning at the individual, group, whole-school and network levels. A representative extract encapsulates this focus:

Helping Early Career Teachers in their classrooms and seeing improved teaching practice. Having an influence in pedagogy projects, and seeing experienced teachers get excited again about teaching. Sharing our quality practices with other schools and hearing how they have implemented them and it has supported their students. (HAT (or equivalent), Survey 2, Comment 9.6-16)

Within this extract are three key elements of the professional learning focus of the role. Firstly, working with colleagues, where reference is made to both Early Career Teachers as well as experienced teachers. Secondly, the types of activities engaged in, such as pedagogy projects or sharing practices and outcomes between schools. Thirdly, reference is made to the skills and/or attributes of the person in the role by instancing the support provided to teachers and project involvement.

Where scope is concerned, whilst it is possible to indicate that the HAT (or equivalent) role involved work at the whole-school level, particularisation of the stakeholders linked to the role was provided in the commentary. This provided a sense of the different levels at which the HAT (or equivalent) operated and, implicitly, the different levels of communication at which the person in the role was required to operate.

There were many tangible instances of impact identified. These can be generalised as empowering and supporting others to take personal and shared responsibility for enhancing teaching and learning. Instances that were referenced in the commentary included:

- facilitating teachers’ dialogue about and sharing aspects of teaching practice;
- establishing networks;
- facilitating ownership of school plans through teams of writing groups;
- motivating others to undertake accreditation or particular training, e.g., peer coaching;
- building mentoring and professional learning delivery capacity in others;
- developing assessment for learning as well as of learning;
- identifying professional learning focus areas;
- mentoring and providing classroom observation feedback; and
- promoting reflection on and questioning about aspect of teacher practice.

There was also a consistent theme of improved student performance as a consequence of enhanced teacher practice. Supporting teachers to reflect on practice or apply particular strategies, i.e., enhancing teacher capacity, was often reported to result in students working in a more productive teaching and learning environment and improved outcomes for students, engaged in “*learning what they want to learn*” (HAT (or equivalent), SC.5, Turn 32).

7.4.3 Summary for Evaluation Question 3(c)

Much of the role description that was provided by HATs (or equivalent) in their commentary focused on their professional practice and the associated outcomes.

HATs (or equivalent) qualified the support dimension of the role by referring to their work with teachers at different career stages within and across networks of schools. Whilst much of the commentary concerning HATs’ (or equivalent) work reflected the support provided to Early Career Teachers, there was also a whole-school consideration evident in the comments about opportunities to focus on particular teaching and learning targets that included:

- documenting Professional Competence;
- providing quality professional experience placements for preservice teachers;
- working with Early Career Teachers to increase their confidence in the classroom;
- developing quality teaching and learning programs;
- sustaining peer coaching, mentoring, team teaching and lesson study practices;
- motivating experienced teachers to achieve specific professional learning goals; and
- sharing practices across schools and respective networks of schools.

Collaboration with staff was described in terms of how HATs (or equivalent) worked with individuals, small groups of teachers, school networks and universities to sustain improved pedagogies and to share best practice. References were made to establishing networks, working with KLA teams, identifying professional learning goals, peer coaching, mentoring and modelling lessons. A pertinent comment relating to collaboration included the notion that the professional learning needs of staff were diverse, e.g., classroom management for New Scheme Teachers, and pedagogical practices that would enhance student learning for experienced teachers. Addressing the diversity of professional learning needs meant that the role was perceived to be a facilitative role, one which enabled teachers to better support themselves and their school.

An integral part of working with colleagues was described in terms of building strong and productive relationships. Reported amongst the perceived associated benefits were the preparedness of staff to contribute to discussions of professional practice, the collective valuing of sustained professional learning, and the trust developed within groups of colleagues.

Some of the outcomes enumerated by HATs (or equivalent) included:

- improved teacher confidence;
- increased teacher and students expectations in teaching and learning;
- enhanced job satisfaction on the part of teachers;
- improved teacher dialogue; and
- changed attitudes towards professional learning.

Unequivocally, HATs (or equivalent) presented the role as embodying support and the collaborative building of relationships to support enhanced teacher practice within and across schools. HATs (or equivalent) presented the purpose of the role in terms of aspects related to people, activities, their own attributes, and the scope of the role, which brought them in contact with a wide range of personnel and professional organisations.

Whilst many tangible instances of impact were identified, they can be generalised as empowering and supporting others to take personal and shared responsibility for enhancing teaching and learning. An additional impact was stated as a consequence of building capacity in others, namely, improvements in student learning.

7.5 Overall Summary for Evaluation Question 3

7.5.1 Evaluation Question 3(a)

- The HAT (or equivalent) role was shaped by three considerations, namely, previous roles held, a well-developed skill set – particularly people management and classroom skills, and contact with stakeholders from within the profession and the wider school community.
- The HAT's (or equivalent) professional perspective was shaped by a number of influences that included personal professional growth, working with peers, adapting to new contexts, improved learning outcomes for students, and engagement with the profession.

7.5.2 Evaluation Question 3(b)

- Collaboration with colleagues, professional motivations, and improving learning outcomes for student were consistently provided as reasons for taking on the HAT (or equivalent) role.
- HATs (or equivalent) were in general agreement that the role was a rewarding one in terms not only of opportunities, but also in terms of professional feedback.
- In terms of aspirational realisation, a recurring theme articulated by HATs (or equivalent) reflecting the main reason for taking on the role, was the notion of professional growth, at the individual level and for others through professional collaboration.

7.5.3 Evaluation Question 3(c)

- The HAT (or equivalent) perceived a key aspect of the role to be relevant to the needs of their stakeholders, a readily accessible resource person with the requisite skills and expertise to plan, implement and support an improvement agenda, as well as to facilitate a culture of continuous improvement.

8 Evaluation Question 4: Paraprofessional Theme

8.1 Introduction, Background and Research Implications

This Chapter addresses the fourth Evaluation Theme, which considered the Paraprofessional Role. The Evaluation Questions for Theme 4 are:

To what extent has the paraprofessional initiative been effective in achieving:

- a) improved support for individuals or groups of students;
- b) improved support for teachers;
- c) improved student performance;
- d) enhanced job satisfaction of teachers and leaders; and
- e) pathways for paraprofessionals into teaching?

The ITQ NP provided the opportunity for schools to employ Paraprofessionals in support roles. There are two broad categories of paraprofessional roles available to schools: Educational and Operational Paraprofessional roles. Educational Paraprofessionals are classroom-based and work under the guidance of teachers to assist in areas, such as, literacy and numeracy to support teaching and learning in the classroom. Operational Paraprofessionals are non-classroom based positions designed to enable teachers to focus more on teaching and learning activities. Two types of Operational Paraprofessional roles were represented in the study: Operational Technology Learning and Operational Community Engagement.

It needs to be noted that not all sectors and schools acted upon the opportunity to introduce the Paraprofessional role. Paraprofessionals were employed in 14 sites for which there were site visits: 13 out of 21 schools and one non-government learning centre. A further four schools had employed Paraprofessionals earlier in the C4E initiative, but had discontinued the role. The 13 schools that employed paraprofessionals at the time of the site visits were all government schools. Therefore, the school interview data concerning paraprofessionals are predominantly specific to the government sector and they predominantly reflect the nature of the Paraprofessional roles as specified by the then Department of Education and Training (NSW DET, 2010).

In relation to the Educational Paraprofessional role, the guidelines for NSW DET schools specify that:

the type of activity an educational paraprofessional could do to support student learning and assist the classroom teacher, is to collate student results for spelling or mathematics tests across a school term. The classroom teacher would then analyse these results and use their professional judgement to complete term reports. (NSW DET, 2011, p. 3)

In relation to the Operational Paraprofessional roles, the guidelines specify that the roles were designed to:

- *provide support for teachers to complete general educational support tasks, e.g., monitor and record student assessment tasks;*
- *assist in developing effective home, school and community partnerships to enhance student achievement;*
- *provide technology and connected learning support for teachers in the classroom;*
- *help develop and implement data management systems, assisting teachers to plan and modify curriculum and learning activities for individual students; and*

- *assist with the coordination of professional experience (practicum) placements for teacher education students and assist to strengthen partnerships between the school and universities. (NSW DEC, 2010, p. 4)*

8.2 Evaluation Question 4(a): To what extent has the paraprofessional initiative been effective in achieving improved support for individuals or groups of students?

8.2.1 Introduction for Evaluation Question 4(a)

It is important to acknowledge that the evaluation data reflects the type of Paraprofessional role that was introduced in the respondents' respective schools. The commentary related to the Paraprofessional role highlighted the indirect supportive dimension of the role.

The information management paraprofessional contributed to improved student outcomes by collating large volumes of data using specialised software, therefore providing staff with detailed pictures of student progress and allowing changes needed in teaching program. Also finalised and published on a wiki all resources related to the maths curriculum created by the members of the numeracy team from across six schools. (HAT (or equivalent) Survey 2, Comment 6.9-25)

8.2.2 Findings for Evaluation Question 4(a)

Improved support for students arising from the Paraprofessional initiative was attributed to the three Paraprofessional Roles represented in both Survey 1 and 2 responses and the site-visit commentary.

Operational Community Engagement Paraprofessionals were least represented in the survey and interview sample populations. Nevertheless, respondents that commented on Community Engagement support in Surveys 1 and 2 rated its effectiveness as 'Strong'. The open-ended survey responses and interview commentary across roles similarly appraised the impact of Operational Community Engagement Paraprofessionals positively. Responses indicated that the role provided indirect support for students through improved parent-school relationships, the support that was directly offered to parents and greater parent engagement in the teaching and learning process.

In Survey 2, three Paraprofessional roles predominated across the 61 (42.2%) responses from respondents in schools with a Paraprofessional:

- Educational (supporting teaching and learning in the classroom) (38%);
- Operational Technology Learning (technology and connected learning support) (34%); and
- Operational Community Engagement (developing home, school and community partnerships) (10%).

The same three roles of a Paraprofessional were represented at the site visit schools:

- Educational (5 appointments);
- Operational Technology Learning (8 appointments); and
- Operational Community Engagement (3 appointments).

Site-visit commentary concerning the Paraprofessional role was collected from 10 Principals, 11 HATs (or equivalent), 10 Executive teachers, 8 Teachers, 6 Early Career Teachers and 10 Paraprofessionals.

The following comments are representative of Survey commentary in relation to the improved parent-school relationships.

Having the paraprofessional allowed the school to establish a great relationship between the parents and wider community with the staff. Parents are now feeling increasingly more welcome with the support of the paraprofessional, especially with our high population of English as a second language. (Executive, Survey 2, Comment 6.9-18)

The paraprofessional is a local person who has an extensive network of contacts in the local community. [S/he] was able to tap into [his/her] vast knowledge and understanding of the local culture and in so doing, improve the level of connection between the school and the community. [His/her] efficient organisation of school/community events, such as stage assemblies, has led to an increase in parent participation over the past 2 years. (HAT (or equivalent), Survey 2, Comment 6.9-31)

The following comments are representative of the more elaborated commentary offered in the site-visit interviews.

So our community liaison officer Paraprofessional has really supported the families in our school really well, which then I see as that providing improved support for our students through their families. That's how I see that has worked, and that's had a huge impact I believe ... the paraprofessional has coordinated ... teaching children how to read, and how you can help with home reading. (SC.13, Principal, Turn 140)

...the last two years we've had a community liaison officer, which was very powerful. Because the issue in non-English speaking background schools is simple. Ninety-six percent of my community out of 1076 kids is from non-English speaking backgrounds ... the community liaison officer was used liberally to build relationships. So we have, for example, a playgroup – first time. We have school banking. We have – we've gone from six parent helpers to 90. We have workshops on how to help in the classrooms. We have specific workshops on vocabulary and problem solving ... and show them and then they have a homework task. Take our model home and work with your child and bring your child back and show us how you taught them. Then we demonstrate lessons for them and the last lesson after five weeks is bring a friend to the last meeting and talk to your friend about what you've learnt, so we sort of build on that communication. Then their friends are invited to come to the next workshop. Powerful stuff. (Principal, SC.15, Turn 82)

Educational Paraprofessionals worked under the guidance of teachers and assisted in areas such as literacy and numeracy to support teaching and learning in the classroom. When asked how paraprofessionals engaged in activities with students, survey respondents who addressed the question directly focused upon literacy support. The open-ended survey responses were brief. The following three quotes typify the responses provided.

Classroom Support of C4E initiatives in Literacy. (Principal, Survey 1, Comment 6.7-20)

Reading Tutors. (Principal, Survey 1, Comment 6.7-18)

Literacy. (Principal, Survey 2, Comment 6.7-54)

Interview commentary, however, was more detailed. The following quote provides insight into the work of an Educational Paraprofessional and evaluates the importance of the work positively.

So the Paraprofessional works in two ways ... it's a withdrawal program but [s/he] can then talk to the teachers about that child and it's an in and out, it's a very fluid program... the

program is so important it will always continue here. Funding support money, integration money, school funds, I will put as much money in there [as I can]. (Principal, SC.4, Turns 253 & 295)

Operational Technology Learning Paraprofessionals' support for students did not feature prominently in the commentary. Nonetheless, it was reported that they provided some indirect support for students by providing technical IT support for teachers, thereby enabling teachers to concentrate on pedagogy and to incorporate higher quality technical resources.

8.2.3 Summary for Evaluation Question 4(a)

When asked how paraprofessionals engaged in activities with students, those who provided commentary directly focused upon particular curriculum support, such as literacy support. Much of the extended commentary detailed how paraprofessionals contributed indirectly to improved student outcomes through the management and organisation of information, such as student progress data and curriculum-specific resources created by school networks.

Operational Community Engagement paraprofessionals were reported as providing very successful indirect support for students through the support provided for parents. Some support within classrooms was reported, where, for example, Educational paraprofessionals worked with students to support reading and enhance their projects using technology. Generally, in-class support was reported as provided by paraprofessionals who were trained teachers.

8.3 Evaluation Question 4(b): To what extent has the paraprofessional initiative been effective in achieving improved support for teachers?

8.3.1 Introduction for Evaluation Question 4(b)

The commentary indicated that the main outcome of the appointment of paraprofessionals was the improved support provided to teachers.

Well even just administration of like here's one less job I have to do which means you could focus on something else. In the CEO position, that to me has been a really effective role, partly has been in reducing the workload, or reducing some of the tasks for the HAT, myself, the deputy and other executives, so it's been, to some degree it's been like your own personal PA at times, I have to say. But what that's done is freed up time ... It certainly has improved support for teachers. (Principal, SC.19, Turns 142 & 152)

8.3.2 Findings for Evaluation Question 4(b)

Survey participants were asked to indicate the extent to which the paraprofessional role had contributed to a range of areas of school improvement. The option to respond with 'NA' was provided for respondents working in schools where paraprofessionals had not been appointed. Responses to the paraprofessional questions are summarised in Figure 8.1.

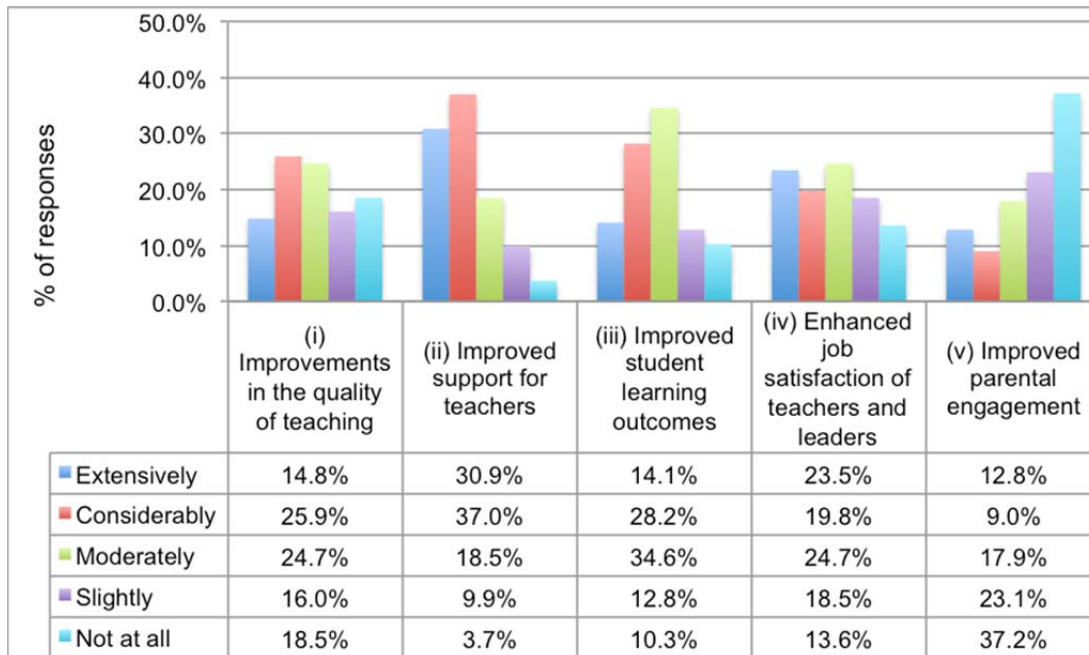


Figure 8.1: The extent the paraprofessional role has contributed to improvements

The survey data demonstrate that the area of greatest impact of the paraprofessional role was ‘improved support for teachers’, with 67.9% of respondents indicating that the paraprofessional role had contributed ‘Extensively’ or ‘Considerably’ to improved support for teachers. In addition, 40.7% of respondents indicated that the paraprofessional role had contributed ‘Extensively’ or ‘Considerably’ to ‘improvements in the quality of teaching’.

The open-ended survey responses indicated that the Operational Technology Learning Paraprofessional role had the greatest impact in terms of improved support for teachers. This included:

- helping teachers to embed IT across all the KLAs;
- offering professional development in analysing data, monitoring student outcomes, and using smart boards and software packages; and
- repairing computers.

One HAT (or equivalent) commented:

The paraprofessional has provided technology support for teachers. This has been technical and learning support. The teachers feel a lot more confident in their use of Smartboards and web tools. The existence of the paraprofessional has been invaluable, especially to my role as a HAT. During videoconferences, conferences I have run and presentations, having a technology support person has made a lot of difference. (HAT (or equivalent), Survey 2, Comment 6.9-33)

Notwithstanding the positive appraisals of the work associated with the Operational Technology Learning Paraprofessional role, paraprofessionals provided open-ended survey responses that highlighted challenges to their role in helping to embed technology in teaching and learning. The paraprofessionals reported that it was sometimes difficult because some staff were reluctant to change and/or did not have the time to learn about or apply new technology, for example:

My role was to support the teachers with Technology. Some felt they couldn't ask for help or didn't have the time to learn the technology that the school made available. (Paraprofessional, Survey 2, Comment 6.15-3)

The site-visit interviews, however, provided extensive commentary that contained positive evaluations of the Operational Technology Learning Paraprofessional role. Twenty respondents suggested that Operational Technology Learning paraprofessionals had directly contributed to improved support for teachers in a number of ways, including:

- improving teachers' capacity to use technologies;
- developing digital resources; and
- supporting teachers with data management.

The following extended extract from an interview with an Operational Technology Learning Paraprofessional outlines and evaluates activities that the Paraprofessional performed.

Well, I think that I have made a difference in helping the teachers in, as you've prompted, in using computer based programs, particularly in surveys and analysing surveys. Been a lot of work in that. ... So, I have helped teachers one-on-one with that, and, and in doing their own survey data for their own programs or things that they might be wanting data on. Also I was instrumental in the professional learning days that we have done here in our school. Our staff development day, the first day in Term 2 each year was our biggest staff development day. And we had 18 schools that we invited. And we had about, it varied from year to year, but I think our top number was about 478 people here. We provided about 42 different sessions for those teachers to choose from. So that was a huge job... in collating all the participants, the presenters.

We initiated that by a survey, we're finding what the teachers would like, what interests they have, and what are the shortfalls perhaps in their skill set that we could address. And, we provided some very successful staff development days. And I think that that was an opportunity for me to directly contact each of those teachers. So it was 478 participants that I regularly contacted by email or phone, or...

Yes. Their preferences, their feedback, their suggestions. All of that was taken on board. And also to encourage them to become presenters, should they have a particular skill of their own. So, encouraging them to step up and to be a presenter. And sometimes, you know, people weren't forthcoming with that. They didn't feel they had the skill to do that. So there was a little bit of encouraging and making them feel like they have something to contribute to the rest of their peers, which was rewarding. (Paraprofessional, SC.9.3, Turns 140, 144, 146 & 148)

Similarly, teachers provided positive commentary concerning improved support for their teaching.

[The Operational Technology Learning Paraprofessional] did after school workshops which, I did that because basically, technology is [his/her] thing and getting my courses onto Moodle ... and I did find it useful because I didn't know anything about it. (Experienced Teacher, SC.5, Turn 58)

There was also extensive commentary concerning Operational Technology Learning Paraprofessional support provided to preservice teachers.

We had a prac student there that was doing four weeks with one of the other teachers, [name deleted], and I actually had to set up her... um she had to do a lesson, a video lesson sort of thing, and so I got that all set up for her, and yeah, offered her a few bits of advice about it, you know things like that. (Paraprofessional, SC.7, Turn 108)

The paraprofessional actually filmed every one of those sessions so we've got them on Moodle. So he filmed every one... The morning half hours is on our system and we give the pre-service teachers that come in now access to it. So they can access it from anywhere

anytime but they don't because it's in their own time. (HAT (or equivalent), SC.14, Turns 554, 556)

Operational Community Engagement paraprofessionals were also reported to support teachers in a diverse range of ways, including professional development based on their unique insights, for example:

The paraprofessional, she delivered some, in-servicing to the teachers ... [s/he] delivered a presentation on how parents feel on the other end of a teacher talk and really, the feedback that we're getting from parents to us and how we can change the way that we might approach parents and what they're feeling like if they're having to come up to the school and it might be a scary situation for them, but really opening our eyes because [s/he] was a parent at our school as well, so [s/he] came from both, [s/he] had both sides of it and just really having a chat to the teachers at our school just to think about different things when presented to parents, just to take on board the different perspective because sometimes you only see it from your way and then [s/he] really opened our eyes up to make sure we're thinking about what parents might be feeling when they're coming up to a parent meeting which was really good. (Assistant Principal, SC.13, Turn 123)

Other support provided to executives, HATs (or equivalent) and teachers by Operational Community Engagement paraprofessionals included being the initial contact person for external inquiries, responding to external inquiries or directing them the appropriate persons in the school or community, accompanying and assisting HATs (or equivalent) on school visits, and event coordination. In relation to the latter, a Head Teacher commented.

A staff member organising knows that they only need to go to [the Paraprofessional] and say "Look can you take care of this, this and this?" and then those jobs will be done. They'll be done efficiently, on time and the staff member only has these jobs to do. (Head Teacher, SC.19, Turn 179)

As outlined in the previous Section, Educational Paraprofessionals provided in-class support to teachers through their involvement in literacy and numeracy activities to support teaching and learning and other activities such as:

researching resources for me, because in his/her role [the Educational Paraprofessional] might be finding something for another teacher, and [s/he'll] come and say, "Look what I found." or "This is what so and so is using." and "I can use that." So, yeah, [s/he's] not only a helper in my classroom, [s/he's] also my data in-putter, and also my resource finder, researcher. (Teacher, SC.8, Turn 108)

8.3.3 Summary for Evaluation Question 4(b)

Improved support for teachers was perceived by survey participants as being the main outcome of the appointment of paraprofessionals. Survey respondents also enumerated activities that paraprofessionals performed. Such activities align with and sometimes go beyond the NSW DET guidelines (2010) concerning the activities specified for Educational, Operational Teaching and Learning, and Operational Community Engagement Paraprofessional roles. Activities included;

- liaising between schools and their communities;
- organising assemblies;
- participating in transition days; and
- helping with university and school cluster co-ordination.

One note of caution was presented, however, in a comment indicating that a paraprofessional's time had been monopolised by a particular member of staff, which reportedly limited the perceived impact of the paraprofessional role in that school.

In interviews, the commentary across the range of roles within schools provided the most comprehensive picture of the paraprofessional role. Positive evaluations of the paraprofessional role were expressed in the majority of cases. Some negative evaluations were also expressed, however. In a few cases it was reported the role was not successful and/or not the most productive use of funding. In such cases the role was discontinued. It was also reported that the paraprofessional role was superseded and replaced by other roles when the vision and/ or goals of some schools changed.

Principals detailed positive ways the paraprofessional had supported teachers by providing expertise in:

- technology;
- community engagement;
- administration; and
- events management.

An intention to continue with community engagement and high-level technology support was expressed in the commentary from some Principals. The identification of support for teachers in the commentary from members of school Executive and HATs (or equivalent) was generally consistent with the Principals' commentary. They referenced strong support for teachers in technology, learning support, administration and community networking.

Teachers' commentary provided more detailed descriptions of the roles performed by paraprofessionals. All the commentary from teachers evaluated the performance of paraprofessionals positively, with the paraprofessionals' role in the organisation of school activities/events, which had often been undertaken by teachers previously, having the highest profile in the commentary. Teachers articulated a range of support activities that included:

- classroom assistance;
- data entry;
- resource location and management;
- administrative assistance;
- delivery of IT training sessions;
- provision of learning management system training; and
- community engagement.

The reported level of success in supporting teachers was clearly contextual, depending on teachers' needs, the role chosen for the paraprofessional and the attributes of the paraprofessionals themselves. One emerging theme supporting the use of a paraprofessional was that in all cases it relieved teachers from administration, event management, learning new technologies, and/or community engagement responsibilities, thereby enabling them to concentrate more on the core business of teaching.

8.4 Evaluation Question 4(c): To what extent has the paraprofessional initiative been effective in achieving improved student performance?

8.4.1 Introduction for Evaluation Question 4(c)

Links between the roles of paraprofessionals and improved student learning outcomes were primarily indirect as illustrated in the following commentary:

So our community liaison officer paraprofessional has really supported the families in our school really well, which then I see as that providing improved support for our students

through their families. That's how I see that has worked, and that's had a huge impact I believe ... the paraprofessional has coordinated ... teaching children how to read, and how you can help with home reading. (Principal, SC.13, Turn 141)

8.4.2 Findings for Evaluation Question 4(c)

Interview commentary concerning whether the paraprofessional initiative had been effective in achieving improved student performance was more limited and mixed. The limited extent of the commentary resulted from paraprofessionals being appointed at only 14 of the 22 sites visited.

Responses to Surveys 1 and 2 indicated that the area of second greatest impact of the paraprofessional role was on “improved student learning outcomes”. Almost 90% of the respondents indicated that the paraprofessional role had improved student-learning outcomes, with 42.3% of respondents indicating that the paraprofessional role had contributed ‘Extensively’ or ‘Considerably’.

Four respondents suggested that the Operational Technology Learning Paraprofessional role had contributed to improved student outcomes through analysing student data and providing support to embed technology use in the classroom, for example:

The information management paraprofessional contributed to improved student outcomes by collating large volumes of data using specialised software, therefore providing staff with detailed pictures of student progress and allowing changes needed in the teaching program. Also finalised and published on a wiki all resources related to the maths curriculum created by the members of the numeracy team from across six schools. (HAT (or equivalent), Survey 2, Comment 6.9-25)

Positive impact was also attributed to the Operational Community Engagement Paraprofessional role, for example:

We've seen improvement in our students because of the improved support we've given to their families. (Principal, SC.13, Turn 140)

Positive responses concerning improved student performance arising from the Paraprofessional initiative were also present in the survey commentary.

Improved student learning outcomes: by increasing attendance levels across all year groups. (HAT (or equivalent), Survey 1, Comment 6.9-11)

In contrast, some interview commentary explicitly stated that paraprofessional initiative did not directly result in improved student performance.

I mean eventually we got [the Paraprofessional] into classrooms supporting teachers, and whilst [s/he] was an extra set of hands, there was really no impact on student learning there. (HAT (or equivalent), SC.16, Turn 140)

One of the teachers was released for two days and did technology, and again I don't think that really helped student outcomes. (Executive, SC.6, Turn 126)

I suppose down the line it does tend to, it's all aimed to improve the student outcomes. Um, but from a direct perspective, no, I didn't think so. (Executive, SC.8, Turn 122)

As noted above, the interview commentary concerning improved student performance arising from the Paraprofessional initiative was limited and mixed, but positive commentary concerning the impact of the Paraprofessional on student outcomes exceeded negative commentary. In addition, responses to surveys indicated that ‘improved student learning outcomes’ was the area of second greatest impact of the paraprofessional role.

8.4.3 Summary for Evaluation Question 4(c)

Mixed evaluations were expressed concerning a direct link between paraprofessional activities in classrooms and improved student performance. However, the commentary contained numerous instances of interviewees indicating that paraprofessionals had contributed indirectly to improved student learning outcomes through direct support provided to teachers and community. These actions were presented as contributing to teachers' enhanced classroom practice and greater parental understanding and engagement in the teaching and learning process in classrooms and at home.

8.5 Evaluation Question 4(d): To what extent has the paraprofessional initiative been effective in achieving enhanced job satisfaction of teachers and leaders?

8.5.1 Introduction for Evaluation Question 4(d)

This extract has been presented because it reiterates a recurring support dimension of the Paraprofessional role.

Myself, the way I see it is that we're trying to, we provide a service to teachers and leadership teams in schools, to try and help our teachers to be the best possible teachers that they can be, and to help them to develop their skills and their, you know, their practice, to kind of keep up with a very rapidly changing work environment.
(Paraprofessional, SC.17, Turn 8)

8.5.2 Findings for Evaluation Question 4(d)

Survey participants were asked to indicate the extent to which the paraprofessional role had contributed to 'enhanced job satisfaction of teachers and leaders'. Almost 90% of survey respondents indicated that the paraprofessional role had enhanced job satisfaction of teachers and leaders and 43% of respondents indicated that paraprofessional role had enhanced the job satisfaction of teachers and leaders 'extensively' or 'considerably'.

In the open response survey items, one respondent commented:

Support for teachers has increased and this has meant a great deal more satisfaction in the area of technology usage in the classroom. (Executive, Survey 2, Comment 6.9-24)

Open response commentary indicated that the paraprofessionals had directly enhanced job satisfaction for teachers and leaders by increasing the productivity of the staff by:

- supporting, and in some cases providing, professional development;
- their efficient organisation and communication skills,
- utilising their community networks; and
- reducing the workload of all staff in clerical and promotional areas.

The interview commentary also indicated benefits of the paraprofessional to executive members, such as workload reduction, freeing up time and technical support.

In the CEO position, that to me has been a really effective role, partly has been in reducing the workload, or reducing some of the tasks for the HAT, myself, the deputy and other executives, so it's been, to some degree, it's been like your own personal PA at times, I have to say. But what that's done is freed up time. (Principal, SC.19, Turn 142)

[The paraprofessional] *knows how to trouble shoot, he will help me out if I don't have him, I don't know where I would go because I'm a nerd in terms of technology.* (Acting Principal, SC.5, Turn 134)

The combined survey and interview data indicate that the Paraprofessional role enhanced job satisfaction of teachers and leaders.

8.5.3 Summary for Evaluation Question 4(d)

During the site visit interviews, paraprofessionals and other personnel provided detailed descriptions of activities that enabled teachers to gain new skills, usually in technology, or more time to concentrate on pedagogy. Particular activities included:

- delivering workshops for technology use in classrooms;
- coordinating the sharing of resources online;
- providing ICT support;
- providing administrative support;
- providing induction programs for new teachers; and
- establishing and providing training associated with an online learning management system.

Direct links to enhanced job satisfaction were indicated in the Survey responses. However, direct links to enhanced job satisfaction were rarely articulated explicitly in the interview commentary.

Nevertheless, based on the interview evidence, it can be argued that without the actions and activities coordinated by paraprofessionals, teachers would have less time to devote to their core business of improving student learning outcomes and would possess less knowledge of and/or expertise in the pedagogical use of ICT. The time made available by the role and the increased knowledge of and/or expertise in the pedagogical use of ICT can be considered proxies for enhanced job satisfaction.

8.6 Evaluation Question 4(e): To what extent has the paraprofessional initiative been effective in achieving pathways for paraprofessionals into teaching?

8.6.1 Introduction for Evaluation Question 4(e)

The following extract has been selected as an instance of how the paraprofessional role was reported to enable a paraprofessional role to clarify his/her career aspirations.

Initially I was interested in possibly pursuing a career in teaching, but as our program continued I've realised that I thoroughly enjoyed the administration side of the education department where I can still liaise with students and teachers. But yeah, more so do the administration side of things. So I probably wouldn't look into teaching now. I've been asked the question quite a few times; I think I like the administration side of it more (Paraprofessional, SC.12, Turn 100)

8.6.2 Findings for Evaluation Question 4(e)

Approximately half of the survey participants' responses to the closed-response statement that the paraprofessional role provides a pathway into teaching replied in the affirmative (See Table 8.1). The open-ended survey responses and interview commentary were received. The mixed

responses reflect the different types of Paraprofessional roles implemented in the respondents' respective schools, i.e., the Educational versus Operational Paraprofessional roles.

Table 8.1: Respondents' views of the Paraprofessional role as a pathway into teaching

	Number of responses	% Number of respondents
The role provides a pathway into teaching	37	47.4%
The role does not provide a pathway into teaching	41	52.6%
Number of respondents	78	

Thirty-seven out of seventy-eight survey respondents indicated that the Paraprofessional role could provide a pathway into teaching. Open-ended responses were provided across roles, except from Paraprofessionals themselves. Positive open-ended responses included:

This role is a great pathway to teaching as it provides a real insight into school life and expectations. (Executive, Survey 2, Comment 6.12-15)

In contrast, 41 out of 78 survey respondents stated that the role was not effective in achieving pathways for Paraprofessionals into teaching. Reasons varied, addressing the nature of the Paraprofessional role and the lack capacity of some Paraprofessionals to pursue teaching qualifications, e.g.,

I see a paraprofessional role as a step back from the classroom. It involves working alongside the classroom teacher when you have already had classroom experience – not a pathway into a classroom career. (Teacher – New Scheme, Survey 2, Comment 6.12-39)

Yes in some situations but probably not for (some) that have been employed here as they are struggling to complete the Teachers Aide and Certificate IV courses in Literacy (Principal, Survey 2, Comment 6.12-31)

The interview commentary also provided mixed evaluations, which again reflect, in part, the type of Paraprofessional role to which the commentary referred, as well as the diverse qualifications and employment histories of the paraprofessionals.

Approximately half of the interviewees indicated that the role could provide a pathway into teaching because it enabled paraprofessionals to get practical experience in classrooms and, thus, an insight into the teaching profession. These in-class experiences, with support from teachers, were reported to provide an understanding of good pedagogy. However, the in-class experience was limited to the Educational Paraprofessional role, which was introduced in approximately 30% of the site visit schools.

The Paraprofessional role was not designed to employ teachers, but Educational Paraprofessionals in four schools were qualified teachers. Four of the site-visit schools currently employed and/or had employed Paraprofessionals that held teaching qualifications. In some instances, the paraprofessionals had been appointed while undertaking preservice teacher education courses. In the others, recently graduated teachers were appointed. In two cases, it was reported that the Paraprofessional role helped former paraprofessionals secure subsequent teaching positions. The following examples give insights into how the role helped them gain a teaching role.

I was the Paraprofessional from August through to December last year ... I finished my final prac and came back as the Paraprofessional, and I've been here as an Aide for seven, six and a half years before that. (Paraprofessional 1, SC.8, Turns 5 & 9)

[The Paraprofessional role] was ideal for that transition ... Ideal absolutely in every way. And I think, I don't think I could have been as good of a teacher had I have not been in that. (Paraprofessional 2, SC.8, Turns 140 & 142)

Paraprofessionals suggested that working alongside teachers, especially HATS (or equivalent), and learning from them, enhanced their chances of moving into teaching. One paraprofessional chose the reverse career path. S/he had been employed as a teacher and chose to transition from the teaching position to the Paraprofessional role, which s/he indicated provided greater personal job satisfaction.

The remaining respondents presented the view that the role of the paraprofessional was purely administrative, thereby referring to the Operational paraprofessional roles. These respondents reported, therefore, that there was not a clear pathway into teaching.

Some Operational Paraprofessionals expressed an initial interest in teaching but reported that they did not pursue a move to teaching for personal or professional reasons, e.g.,

Yes. I did certainly look at, I would have liked the library, librarian role. But when I looked into it, you know, there's no guarantees of being a librarian. And so, you, if you become a teacher, you really have to concede to being a teacher of all subjects. And I just felt with my own personal time in life and family commitments, it was unachievable at this time. And also, did I really feel that the money that I would have spent pursuing the teaching, to what age I would have been at the end, you know, was it worth pursuing that? (Paraprofessional, SC.9, Turn 222)

Initially, I was interested in possibly pursuing a career in teaching, but as our program continued I've realised that I thoroughly enjoyed the administration side of the education department where I can still liaise with students and teachers. But yeah, more to do the administration side of things. So I probably wouldn't look into teaching now. I've been asked the question quite a few times [laughter] but, I think I like the administration side of it more. (Paraprofessional, SC.12, Turn 100)

Another group expressed a lack of interest for a range of reasons, e.g.,

When I say 'No', I'm in the final throes of a degree in theology ... I have worked, not in schools, but in parishes, working with education, like families and children. I'm kind of more interested in adult education. I am really interested in education, but I think that for my particular set of skills and interests I'm far better off sitting down with a teacher and saying, "OK, let's work out how you can do so and so" than actually sitting down with a bunch of kids. (Paraprofessional, SC.17, Turns 204 & 206)

The apparent polarisation within the commentary reflects the different potential of Educational and Operational paraprofessional roles to provide pathways into teaching. Notwithstanding the considerable positive commentary concerning the perceived and sometimes demonstrated potential of the Paraprofessional role to provide a pathway into teaching, none of the paraprofessionals at the site-visit schools indicated that they had commenced a teaching qualification after being appointed to the role.

8.6.3 Summary for Evaluation Question 4(e)

Divergent perspectives concerning the potential of the Paraprofessional role to provide a pathway into teaching were present in the survey and interview data, and the different

perspectives reflect the two broad categories of Paraprofessional role, namely, Educational and Operational Paraprofessional roles.

Commentary that endorsed the potential of the Paraprofessional role to provide a pathway into teaching contained examples and/or justifications that aligned with the Educational Paraprofessional role. Whilst the Educational Paraprofessional role was not designed for teachers, four of the site-visit schools employed or had employed Educational Paraprofessionals that were qualified teachers. Other site-visit schools had employed preservice teachers. In both cases, current and former paraprofessionals provided positive commentary concerning the potential of the Paraprofessional role to provide a pathway into teaching.

Commentary that did not endorse the potential of the Paraprofessional role to provide a pathway into teaching contained examples and/or justifications that aligned with the nature of the Operational Paraprofessional role. Other commentary addressed the personal attributes of paraprofessionals rather than the role. Commentary relating to personal attributes from non-paraprofessionals concerned the perceived lack of capacity of particular Operational paraprofessionals to successfully complete a preservice teacher education course, whereas commentary from paraprofessionals referred to non-alignment of the role with personal priorities; satisfaction with an administrative or other role that supported teachers; and current pursuit of an alternative course of study.

Notably, none of the paraprofessionals at the site-visit schools indicated that they had commenced a teaching qualification since being appointed to the role.

8.7 Overall Summary for Evaluation Question 4

8.7.1 Evaluation Question 4(a)

- Some Educational Paraprofessionals were reported to have improved the support for students.
- The majority of paraprofessionals were Operational Paraprofessionals and these did not directly offer in-class support to students, although those engaged with technology support and community engagement were reported to have indirectly supported students.

8.7.2 Evaluation Question 4(b)

- The success of the paraprofessional role was attributed to the support that it provided to teachers in the areas of administration, event management, technology, and community engagement responsibilities.
- While such support for teachers could impact on the quality of teaching and learning, few respondents reported an explicit connection between the paraprofessional role and these outcomes rather observing that the support enabled teachers to concentrate more on the core business of teaching.

8.7.3 Evaluation Question 4(c)

- Ninety percent of the survey respondents indicated the Paraprofessional role had improved student-learning outcomes, however, there was little direct evidence that the paraprofessional role contributed directly to student-learning outcomes in the site-visit interviews. There was recognition of them helping teachers and families and this support has the potential to improve student outcomes indirectly.

8.7.4 Evaluation Question 4(d)

- Overwhelmingly, survey respondents indicated that the Paraprofessional role had enhanced job satisfaction of teachers and leaders and 43% of respondents indicated that paraprofessional role had enhanced the job satisfaction of teachers and leaders 'extensively' or 'considerably'.

8.7.5 Evaluation Question 4(e)

- The Educational Paraprofessional role provided an effective pathway for appointees who held or were undertaking a teacher qualification.
- The Educational Paraprofessional role did not result in any paraprofessionals enrolling in a preservice teacher program subsequent to appointment.
- The Operational Paraprofessional roles were not designed to provide a pathway into teaching and this was confirmed in the findings.

9 Evaluation Question 5: Professional Experience Theme

This Chapter addresses the fifth Evaluation Theme, which considered Professional Experience. The Evaluation Question, was:

Do C4Es prepare higher quality teacher education graduates who are better equipped and prepared to teach in NSW schools?

The Chapter provides an overview of the findings from analyses of commentary provided in the questions in two rounds of on-line surveys and during semi-structured interviews undertaken with school personnel in selected sites, the Professional Experience Reports and the Professional Experience Surveys.

9.1 Introduction to Evaluation Question 5

There is significant research concerning the factors that impact on the quality of the professional experience provided to preservice teachers. The findings of much of this research are summarised in Beck and Kosnick (2002), Le Cornu and Ewing (2008) and Ulvik and Smith (2011). Cheng (2012) indicates three main factors impacting on the learning outcomes of professional experience programs. These are the:

- design of preservice courses providing the theoretical underpinning for teaching practice;
- preservice teachers' self-efficacy; and
- support provided by supervising teachers.

The third of these three factors is most relevant to Evaluation Question 5. Whilst much of the research has focused on the nature of the relationship between preservice teachers and supervising teachers, other research has focussed on the capacity of the supervising teachers, and, in particular, their disposition towards the development of preservice teachers and their own learning. Further, Wang et al. (2008) found that supervising teachers were more effective when supported by a collaborative school environment. Likewise, Le Cornu and Ewing (2008) promoted the formation of learning communities within schools as a means of enhancing the effectiveness of teachers' professional experience. This research suggests that support for the development of learning communities within C4Es provides the environment for enhancing the quality of professional experience outcomes.

The responses to Surveys 1 and 2 (See Appendix A¹⁸) indicate that teachers and other school staff have a strong stake in the quality of the professional experience, seeing themselves benefitting from and having responsibility for the preparation of the next generation of teachers.

In responding to the question above, the evaluation investigated a range of data including responses to Surveys 1 and 2, supervising teachers' commentary in more than 500 Professional Experience Reports, preservice teachers' responses to a survey about their perceptions of the efficacy of the professional experience and commentary from site visits.

¹⁸ Appendix A available from authors on request.

9.2 Quality frameworks underpinning professional experience

The evaluation investigated a range of quality frameworks associated with the professional experience. These included the *Professional Teaching Standards* (NSWIT, 2005), the guidelines and quality standards established by universities, and school-level monitoring.

9.2.1 Extent *Professional Teaching Standards* (NSWIT, 2005) provide a quality framework for professional experience

Responses to both surveys indicated high levels of support for the use of the Graduate Teachers Standards in *Professional Teaching Standards* (NSWIT, 2005) as a framework for the development of preservice teachers. Figure 9.1 reports on the responses to this question from Survey 2.

With one exception, the responses to the use of the Standards as a framework for professional experience were overwhelmingly positive, with mean of rating score in all categories being between four to five. Standard *g. Active engagement with the profession and with the wider community* was the only standard for which *Very important – 5* was not the most frequent response. The analysis of these data investigated also differences amongst groups disaggregated on the basis of respondent and school characteristics.

There was no significant difference in how teachers in different positions responded to each of the Elements of the Standards¹⁹, however analysis of Survey 1 data indicated there was a difference in the importance attached to *c. Planning, assessing and reporting for effective learning* ($F(4,48.61)=5.137, p=0.002$). Teachers in the 41-50 years age group rated the importance of this Standard significantly lower than those aged 31-40 years and teachers over 60 years of age. Teachers over 60 years of age rated this Standard higher than those in the 41-50 and 51-60 year age groups.

This suggests that teachers aged 41-50 may place less emphasis on this aspect of preservice teacher preparation in their supervision of the professional experience.

There were no significant differences between the responses of teachers in C4E, spoke schools or low SES schools.

¹⁹ Unless otherwise stated, the expression ‘the Standards’ refers to *Professional Teaching Standards* (NSWIT, 2005).



Figure 9.1: Extent elements of *Professional Teaching Standards* (NSWIT, 2005) provide a framework for developing preservice teachers

9.2.2 Quality frameworks provided by universities

Survey respondents were asked to rate the extent to which they agreed with statements about the frameworks and support structures provided by universities. The responses to these questions in Survey 2 are reported in Figure 9.2.

Overall the responses are inclined towards agreement rather than strong agreement with the statements. With one exception the proportion of respondents indicating ‘*Strongly agree*’ with the statements is less than 6%. The one exception, where 21.9% of respondents indicated they ‘*Strongly agree*’, was the statement: *The performance benchmarks set by Teacher Education Institutions for passing students are set too low*. These data suggest that there is scope for greater alignment between university quality frameworks and the in-school expectations and requirements as perceived by respondents.

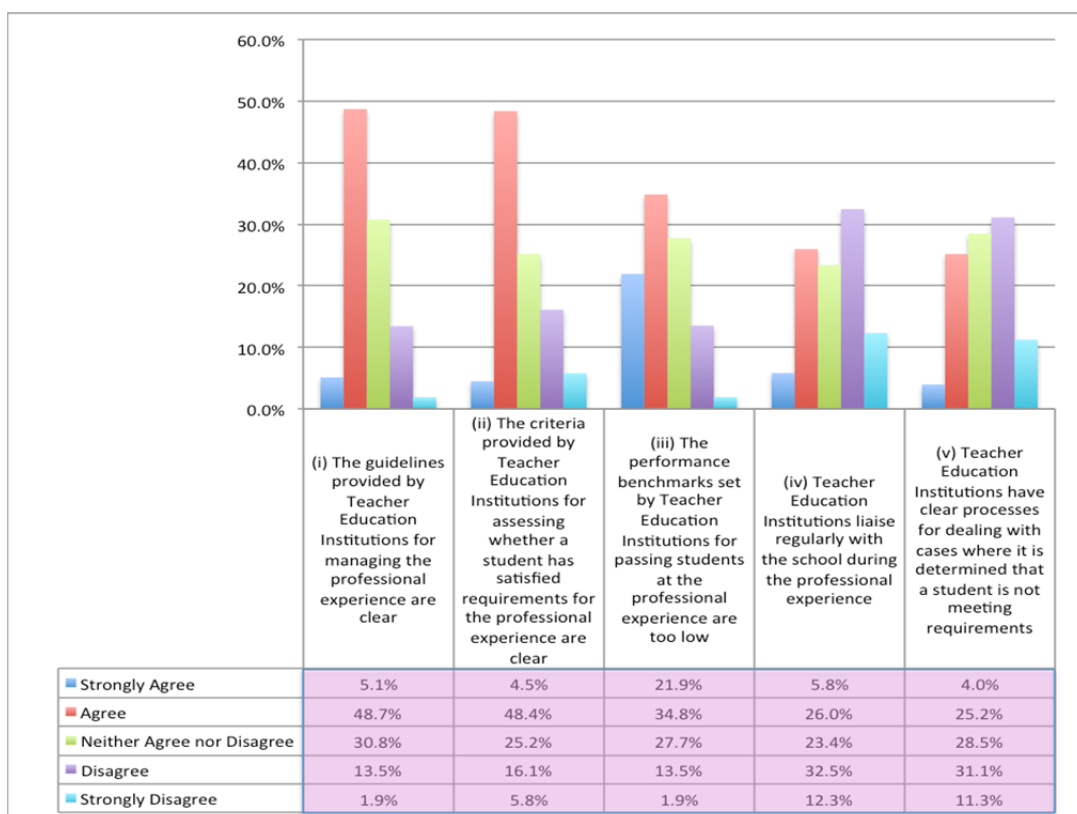


Figure 9.2: University support for professional experience

The Differential Item Function analysis undertaken as part of the Rasch analysis of Survey 2 data indicated that respondents from metropolitan schools were more likely than respondents from provincial schools to rate more highly:

The extent of agreement with the following statements:

- (ii) *The criteria provided by Teacher Education Institutions for assessing whether a student has satisfied requirements for the professional experience are clear.*

Classroom teacher respondents were more likely than HAT (or equivalent) respondents to rate highly their responses to:

The extent of agreement with the following statements.

- (iv) *Teacher Education Institutions liaise regularly with the school during the professional experience.*
- (v) *Teacher Education Institutions have clear processes for dealing with cases where it is determined that a student is not meeting requirements.*

9.2.3 Quality of the professional experience – school-level monitoring

Respondents were asked to rate on a five-point scale the extent to which their school monitored the quality of the professional experience. Responses to both surveys indicated that schools are involved in monitoring of the professional experience. Some 83.0% of respondents to Survey 2 indicated that they ‘*Strongly Agree*’ or ‘*Agree*’ with the statement that their school monitors and/or evaluates the way they provide professional experience. Analysis of Survey 1 responses of teachers from C4E, spoke and low SES schools found no significant difference amongst these groups in their perceptions about school level monitoring of the professional experience.

Although Survey 1 participants were asked to share success criteria for monitoring of the professional experience, the majority of responses received concerned practices that supported quality professional experience. The following is a synthesis of the ideas put forward. They included:

- understanding and clarifying the expectations of the supervising teacher and preservice teacher;
- open and frank communication;
- recording of lessons;
- availability of the HAT (or equivalent);
- providing networking and peer review structures;
- university partnerships;
- focusing on the professional standards; and
- raising the status of the professional experience.

9.2.4 Quality of school-level professional experience supervisors

The quality of the supervision of the professional experience is critical to the quality of the preparation provided to new entrants to the profession. An analysis of survey responses to questions about the importance of criteria for selecting supervisors for the professional experience, reported in Appendix B²⁰, found the two most important criteria were *Perceptions about the quality and capacity of the supervising teacher*; and *The willingness of teachers to supervise the professional experience*.

The Rasch analysis of Survey 2 responses found that responses to (i) *Years of teaching experience* were unpredictable, that there are differing views about the effects of years of experience on the capacity of less experienced teachers to supervise the professional experience. Classroom teacher respondents were more likely than HAT (or equivalent) respondents to rate *Years of teaching experience* highly.

9.3 Analysis of Survey Commentary

Open response questions in Surveys 1 and 2 provided insights into practices that support professional experience for preservice teachers in C4E, Spoke and Low SES schools. Collectively, Surveys 1 and 2 were completed by respondents working in Government ($n=133$), Catholic ($n=26$) and independent ($n=17$) schools. Open response questions 7.7 and 7.8, respectively, sought to elicit commentary concerning (i) frameworks and strategies that schools need to provide to ensure professional experience programs adequately prepare preservice teachers for teaching in the full range of teaching situations that exist in NSW schools and (ii) feedback that the respondents would provide to preservice teachers concerning preparation for successful future teaching.

The qualitative analysis of Surveys 1 and 2 complements the quantitative analysis of Survey 2, which demonstrated the reported importance of quality supervision to the quality of the preparation of graduate teachers. Open response question 7.7, to which 99 respondents provided commentary, provided insights into the professions' view of frameworks and strategies that support quality professional experience for preservice teachers. Quality supervision was again highlighted at the school and supervisor levels. At the school level, the respondents' commentary repeatedly reported the importance of structured programs, such as induction programs ($n=15$), supervising training ($n=8$) and other programs, all supported by appropriate

²⁰ Appendix B available from authors on request.

school policies. Exposure to a diversity of teaching situations within and across placements also had a high profile ($n=21$), followed by the importance of lesson observations both of and by preservice teachers ($n=15$). The allocation of high quality supervisors was also a recurring theme ($n=12$).

The commentary to open response question 7.7 also made references to the Elements of the Standards and Graduate Teacher Standards in the *Professional Teaching Standards* (NSWIT, 2005). Although the references were not as frequent as in open response question 7.7 (discussed below), it is notable that knowledge and/or use of the Standards was frequently referenced, e.g.,

Excellent data driven feedback based on the standards (Executive, Survey 1, 7.7-79²¹)

Schools should be providing mentoring/ coaching to students and be encouraging the use of improvement tools and reflection strategies that encourage continuous improvement and linking this to the professional teaching standards. (HAT, Low SES, Survey 2, 7.7-73)

Maintaining a current knowledge of the teaching standards and the appropriate evidence to collect and evaluate. (Principal, Survey 2, 7.7-87)

Open response question 7.8, to which 112 respondents provided commentary, provided insight into the reported nature and substance of the feedback that personnel across all roles in C4E, Spoke and Low SES schools provide to support preservice teachers. The nature of the feedback comprised two broad categories: feedback that aligned with the *Professional Teaching Standards* (NSWIT, 2005) and other feedback. In relation to the former, respondents frequently outlined general feedback that aligned with the Element(s) and/or specific feedback that aligned with the substance of the Graduate Teacher Standards. Feedback that aligned with specific Graduate Teacher Standards is summarised in Figure 9.3.

²¹ Coding signifies the question number (7.7) followed by the response number (79).

Element 1	Element 2	Element 3	Element 4	Element 5	Element 6	Element 7
1.1 2	2.1	3.1 1	4.1	5.1 8	6.1 6	7.1 1
1.2 1	2.2	3.2 1	4.2	5.2	6.2 1	7.2
1.3 4	2.3 3	3.3 1	4.3 3	5.3	6.3 1	7.3 1
1.4	2.4 4	3.4 1	4.4 1	5.4	6.4 5	7.4 1
	2.5	3.5	4.5 2	5.5 3	6.5 8	7.5
	2.6	3.6 1		5.6 1	6.6 2	7.6 2
		3.7 3		5.7	6.7 1	
		3.8			6.8 1	
		3.9				
		3.10 2				

Key
Number in blue cells indicates the number of times a Standard was referenced.
Green cells indicate that a Standard not referenced.

Figure 9.3: Distribution and frequency of Graduate Teacher Standards referenced in Open Response Question 7.8

Although the commentary addressed Graduate Teacher Standards across the seven Elements, it was most focused on Element 6: Teachers continually improve their professional knowledge and practice. The four most frequently referenced Graduate Teacher Standards were:

- 6.5 Accept constructive feedback to improve and refine teaching and learning practices. ($n=8$)
- 5.1 Demonstrate a variety of strategies to develop rapport with all students. ($n=8$)
- 6.1 Demonstrate a capacity to reflect critically on and improve teaching practice. ($n=6$)
- 6.4 Demonstrate knowledge of the importance of teamwork in an educational context. ($n=5$)

Commentary that did not address the Elements or Graduate Teacher Standards was broad and comprised several distinct sub-categories. The most frequently referenced sub-category ($n=22$) concerned dispositions relating to professional capacity (e.g., being flexible, organised), tenacity (e.g., being committed, resilient, proactive) and affect (e.g., being passionate, confident). Other sub-categories included lesson observations by and of preservice teachers and exposure to diverse teaching situations.

The quality of the feedback varied from brief general statements concerning Elements and/or dispositions to rich narratives that interwove feedback concerning specific Standards with general statements about Elements, dispositions and other aspects of teaching practice. At the most general level, the comments were unelaborated; they identified Elements in the *Professional Teaching Standards* (NSWIT, 2005) or made cursory references to dispositions and/or aspects of practice that were unrelated to the Standards. In relation to the former, an Executive member paraphrased Elements 3, 2 and 1, respectively: “Be prepared, know your students, know your content” (Executive, Survey 2, 7.8-61). In relation to the latter, an

Accredited teacher wrote: “Students are a ‘work in progress’. Challenge students by all means, but lead by example” (Accredited Teacher, Survey 1, 7.8-47).

At an intermediate level, commentary identified general principles illustrated with examples, e.g., an Executive member identified a concrete aspect of teaching practice and related it to a paraphrased version of Graduate Teacher Standard 3.1.10: “Use the ASSESS-PLAN-TEACH-REVIEW cycle. Teachers must be in the constant practice of looking at student data to inform their teaching” (Executive, Survey 1, 7.8-14). In relation to rich narratives that interwove feedback concerning specific Standards with general statements about Elements and dispositions and other non-Standards-based advice, one Principal wrote:

Take joy to the classroom [disposition]. Know that each child has come from a different setting in the morning – some happy, some angry and some sad. If you maintain a positive attitude [disposition] and manage to tell stories to illustrate your point in the classroom, your students will be engaged [Element 3: general], invigorated and they will happily learn whatever you have to teach them! Be real to the children [disposition]. Make sure that you bring loads of empathy with you [disposition]. Don’t be judgemental [disposition]. Be respectful [disposition]. If you are respectful [disposition], your students will be too. If you notice that someone is angry, take them aside and talk to them calmly [disposition] – you may avert a ‘blow out’ – someone has listened. Be an active listener [4.1.3] – you don’t have all of the answers! Guide their learning – we are facilitators for their knowledge and directors of their knowledge – we are teaching them how to access information in this digital age. Guide ... be kind [disposition]...be joyful [disposition] ... be authentic [disposition] and always admit when you make a mistake. Ensure that you know where each child is on a continuum of learning [2.1.4]. That way you can refer any child who is experiencing difficulties to the Learning Support Team [7.1.4]. They will help you to find ways to help your student to access the curriculum and improve their learning outcomes. Be ready to make resources for individual students to assist their learning [3.1.4]. Plan your lessons and the transitions [3.1.2] between lessons well. Don’t be upset when something prevents you from completing your lesson – there’s always another day! Try to insist that your prime teaching time is not interrupted. Develop rapport with other teachers on your grade/subject – share programming and resources [6.1.4]. Always check your duties in the morning before you start the day. Be the best teacher that you can be! (Principal, Survey 1, 7.8-35)

In summary, the open response commentary in Surveys 1 and 2 outlined a Standards-based focus, which was supported by:

- an infrastructure comprising structured programs (e.g., induction and supervisor training) and associated policies;
- the selection of high quality supervisors;
- support for diverse experiences for preservice teachers, including exposure to a wide range of teaching situations; and
- extensive observations of and by preservice teachers.

9.4 Quality of the professional experience

The evaluation plan foreshadowed two other activities designed to collect data to explore the extent to which the reforms of the professional experience arising from the ITQ NP initiatives addressed the evaluation questions.

The first comprised the analysis of professional experience reports to gain insights into the supervision and support of preservice teachers in ITQ NP and non-ITQ NP schools. The analysis is

underpinned by the notion that there may be identifiable differences as a result of the ITQ NP initiatives.

The second activity comprised the garnering of preservice teachers' views about their professional experience and the extent to which it prepared them for teaching generally, and specifically, in a range of schools that are difficult to staff.

9.4.1 Quality of preservice teacher professional experience reports

Approximately 550 Professional Experience Reports prepared by supervising teachers were analysed to provide insights into supervising teachers' demonstrated capacity to articulate practice against the *Professional Teaching Standards* (NSWIT, 2005). The methodology used to analyse Professional Experience Reports prepared by school-based supervisors and obtained from three universities is outlined in Chapter 4.

The analysis of supervising teachers' use of the Standards as a basis for writing professional experience reports identified three issues, namely, the:

1. comprehensiveness of the reports;
2. demonstrated knowledge of the Standards; and
3. affirming nature of the reports.

9.4.1.1 The comprehensiveness of professional experience reports

Three levels of detail were identified in the reporting against the Standards. These are elaborated in Appendix C²². The three levels were minimalist, general and detailed, as outlined below.

1. A minimalist level was presented in a small number of reports, in which supervising teachers provided summative comments such as '*Satisfactory*' or '*Good understanding*' rather than descriptive comments of the practices observed.
2. A general level was presented in the majority of reports, in which supervising teachers described the practices they identified in general terms, often by paraphrasing the Standards.
3. A detailed level was presented in a significant but smaller number of reports, in which supervisors provided detailed commentary of the practices evident in the lessons observed. These supervisors demonstrated a more detailed understanding of the standards and the professional practices that comprise evidence of their achievement.

9.4.1.2 Referencing preservice teachers practice against the Standards Framework

The lack of demonstrated ability of some teachers, identified above, to articulate practice against the Standards is compounded by references to practice that in many cases were not relevant to the Standards. An example of this misalignment in reporting of the Standards is provided in Appendix F.

Although the analysis was not constructed to determine the extent of the issue identified in the examples above, it was apparent, however, that the majority of reports contained comments against Elements of the Standards or contained discussion of practice not relevant to the particular Element that was the focus of the comment.

²² Appendix F available from authors on request.

Guidelines for attestation of meeting the Graduate Standards require supervising teachers to be aware of evidence that verifies the preservice teacher's achievement of each element of the Standards. The demonstrated inability of many teachers to describe practices that provide evidence of meeting standards relevant to each element raises questions about their capacity to judge achievement of the Graduate Standards.

9.4.1.3 Affirming nature of reports

Overwhelmingly, the supervising teachers' comments were positive and affirming. In some instances, where the professional experience was undertaken early in the program of professional preparation, the comments identified areas for attention and improvement in the future.

9.4.2 Rasch analysis of summative commentary

A detailed qualitative analysis of the summative commentary in the reports was undertaken using nVivo in order to map the commentary against individual standards in the *Professional Teaching Standards* (NSWIT, 2005). The data showing references within each report to the Standards was exported, coded '1' if there was a reference to a particular standard and '0' if there was not a reference to that standard, and subjected to Rasch analysis.

The statistics reported by the analysis, *standard reference* and *report detail* estimates, provide a basis for analysis of the extent to which supervising teachers reference individual standards and differences amongst groups of reports in the extent the Standards were referenced in summative comments. Standard reference estimates are reported in rank order from most referenced to least referenced in **Figure 9.4**. When interpreting the graph the reader should note that the most referenced standards are at the top of the graph with least referenced at the bottom.

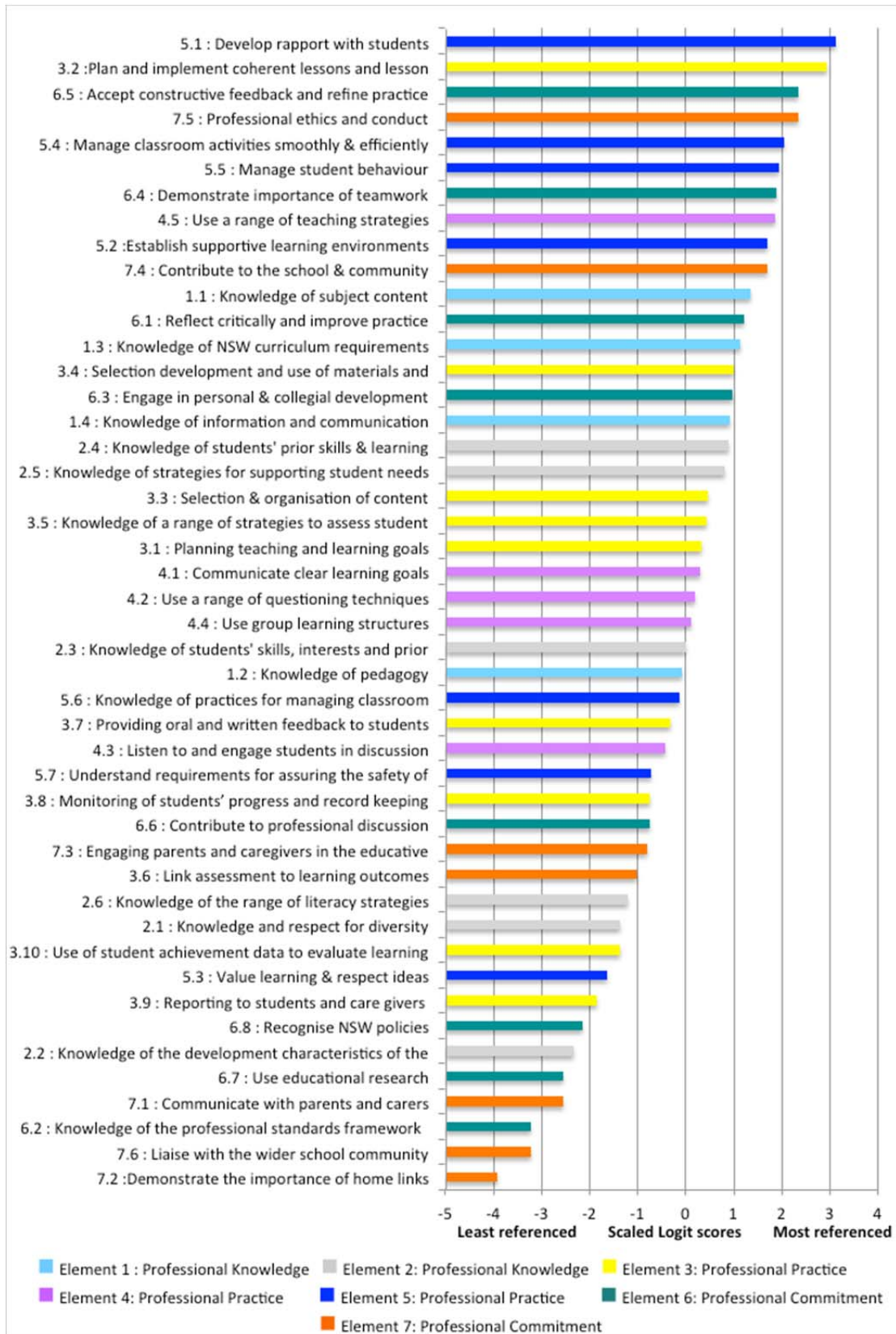


Figure 9.4: Graduate Standards reference ranked from most to least referenced

Amongst the most referenced standards are those relating to **Element 5: Teachers create and maintain safe and challenging learning environments through the use of classroom management**

skills. This reflects supervising teachers' emphasis on the ability of preservice teachers to maintain order in the classroom.

Other most referenced standards relate to the preservice teachers' professional commitment as evident in their attention to planning, their ability to work with colleagues and their readiness to accept and act on constructive feedback, perceptions about their professionalism, their capacity to adapt their teaching and their willingness to participate fully in school life.

Amongst the least referenced standards are those grouped within *Element 6: Teachers continually improve their professional knowledge and practice* and *Element 7: Teachers are actively engaged members of their profession and the wider community*.

Overall, this result can be interpreted as an indication of limited opportunities for preservice teachers to participate in professional learning or to engage with parents during professional experience. This needs to be interpreted through, and will reflect, what preservice teachers demonstrated or did not demonstrate in the context where they undertook their professional experience. Also, it will draw upon supervising teachers' knowledge of, and attitude towards, the Standards.

The analysis looked also at supervising teachers' understanding of the six most reference and six least referenced standards.

9.4.2.1 Six standards most referenced

Standard 5.1 Develop rapport with students

The great majority of supervising teachers wrote simply that preservice teachers had or were developing a good rapport with students. Other supervising teachers used terms that described the nature of rapport, while a small number wrote about broader concepts concerned with the nature of the interaction between the preservice teacher and student such as: "*engages with students in a professional manner, student interaction is comfortable and relaxed*" and the establishment of rapport leading to "*student respect*".

Standard 3.2 Implement coherent lessons and lesson sequences

As with the previous standard, many supervising teachers did not elaborate on the nature of the planning or writing. They simply stated that the preservice teacher was 'prepared' or 'organised': however, some commented upon the form of the lesson plans and others commented on aspects of the lessons identified in the lesson plans and programs. A small number of supervising teachers provided advice to preservice teachers on improving their planning.

Standard 6.5 Accept constructive feedback and refine practice

The willingness of preservice teachers to accept and act on constructive feedback was commonly reported by supervising teachers. While many of the supervising teachers simply acknowledged the willingness of the preservice teacher to accept feedback, others reported that the preservice teacher actively sought advice.

Standard 7.5 Professional ethics and conduct

The majority of references to this standard referred simply to preservice teachers' professionalism, or professional manner. Many commented in terms of preservice teachers' dress, punctuality, work ethic, interaction with colleagues and students. There was no evidence of further consideration of professionalism, such as the knowledge, attitudes and values

preservice teachers bring to the judgements they make about their interaction with students and their judgements about teaching and learning strategies to address the needs of all learners, or of their understanding of the regulations and statutes related to teachers' responsibility and students' rights.

Standard 5.4 Manage classroom activities smoothly and efficiently

A range of perspectives was raised about the capacity of preservice teachers to manage classroom activities so that learning ensued. Some reports simply referred in general terms to the preservice teachers' capacity to manage their classrooms. Other commented on specific aspects of classroom management such as:

- time management;
- on task learning;
- flexibility;
- consistency;
- confidence; and
- authority.

A small number of reports contained commentary on the importance of effective classroom management to the provision of an environment where learning can be optimised.

Standard 5.5 Manage student behaviour

Given that the capacity to manage student behaviour is a condition of effective classroom management, the standard reference estimate for this standard is closely aligned to that of the previous standard discussed. Comments comprised both broad assessments of preservice teachers' capacity to manage student behaviour as well as more specific ideas associated with preservice teachers' capacity to:

- manage challenging behaviours;
- implement positive behaviour management strategies;
- establish clear expectations;
- ensure consistency, firmness and fairness; and
- implement school discipline policies.

9.4.2.2 Six standards least referenced

The six standards that were referenced least by supervising teachers include:

- 2.2 Knowledge of the development characteristics of the age group of students;
- 6.7 Use educational research;
- 7.1 Communicate with parents and carers;
- 6.2 Knowledge of the professional standards framework;
- 7.6 Liaise with the wider school community; and
- 7.2 Demonstrate the importance of home links.

The finding concerning the use of educational research is consistent with the responses of teachers who contributed to the Validation of the Standards (Baxter, Dickson, Graham, Panizzon, Parnell & Pegg, 2006). The contributing teachers similarly rated the use of research in teaching as being difficult. This raises a number of policy implications given the current public discourse about the importance of research in building teacher quality and capacity. It creates an opportunity concerning how best to use the expertise of current and future beginning teachers graduating with Masters degrees that comply with the new Australian Qualifications Framework

guidelines for Masters degrees (Australian Qualifications Framework Council, 2013), which require all graduates to possess “specialised knowledge and skills for research” (p 59).

9.4.3 Differences in summative commentary amongst teachers

The report detail estimates developed through the Rasch analysis, provide a basis for determining the differing capacities of groups of teachers to describe teaching practice.

The value of the report detail estimate reflects several issues, all of them complex in their own right. The task of incorporating the 46 standards within one summative commentary is difficult. Further, supervising teachers can only write about what they observe, do not observe or a subset of these features. The context the preservice teachers are experiencing will also influence what is written. Also, the comments are provided in the light of the stage of development of the preservice teacher, namely, what the supervising teacher believes is most relevant to the preservice teacher. Nonetheless a number of differences amongst report detail estimates were identified. These are reported below.

9.4.3.1 Schools’ participation in the ITQ NP initiatives

The analysis found an overall significant difference amongst Schools’ participation in the ITQ NP initiatives ($p=0.005$). Post hoc analysis was undertaken to determine the source of the differences. This analysis found a significant difference between the mean summative commentary estimates for reports from Spoke schools and schools not participating in the initiatives. There were no other significant differences.

The plot of mean scores indicates that the summative commentary estimate for Spoke schools was higher than that from non-participating schools. This means that supervisors in Spoke schools wrote more detail reports against the Standards than those from non-participating schools.

9.4.3.2 Course type

Preservice reports for four types of degree were analysed to determine whether there were any differences in report detail estimates amongst them. The course types were BEd/BTeach, Combined degrees, MTeach and Postgraduate Diplomas. Figure 9.5 reports the plot of mean report detail estimates.

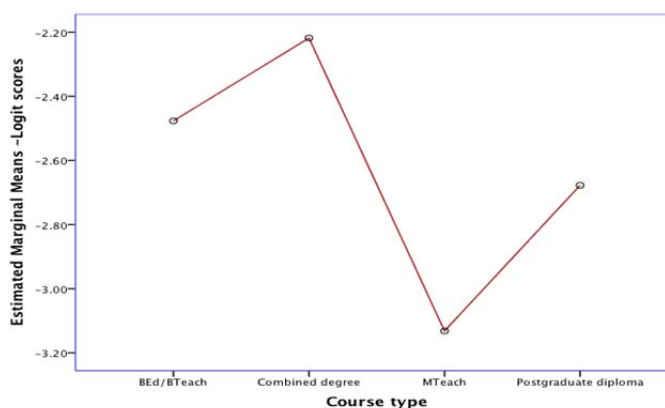


Figure 9.5: Mean Report detail estimates by course type

These data indicate that the mean summative commentary estimates of reports for students undertaking a Master of Teaching (MTeach) qualification are significantly lower than for all other

course types. Further, the mean summative commentary estimates for students enrolled in combined degrees is significantly greater than for those enrolled in a postgraduate diploma. The reason for these differences and, in particular, why reports written for preservice teachers undertaking MTeach degrees have lower summative commentary estimates is not clear.

9.4.3.3 University

The data were disaggregated by University to determine if there were any differences amongst them in the mean summative commentary estimates. A univariate analyses found significant differences amongst the analysis of reports from the Universities ($p < .001$). Post hoc analysis was undertaken to determine the source of the differences. This analysis found a significant difference between the mean summative commentary estimates for reports written for preservice teachers enrolled at University 1 and University 3.

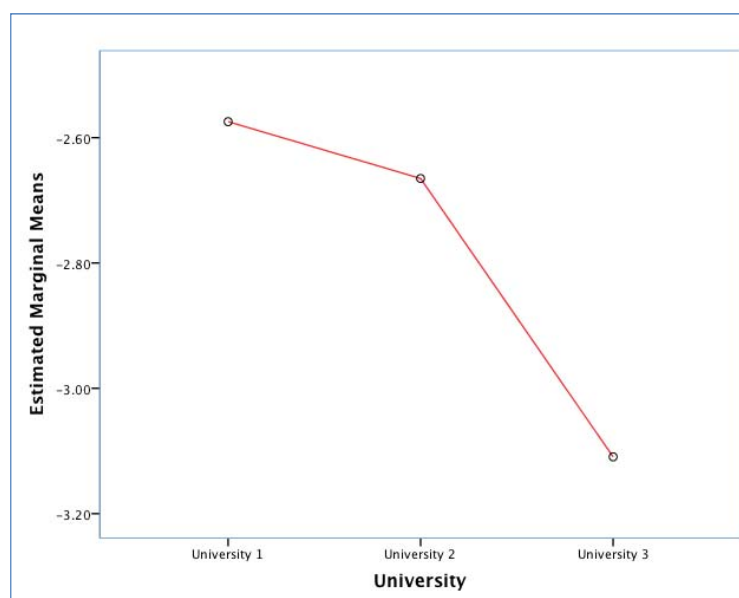


Figure 9.6: Mean summative commentary estimates by preservice teacher's university

The plot of mean scores (Figure 9.6) indicates that the summative commentary estimates of reports written for preservice teachers enrolled at University 1 were significantly higher than those for preservice teachers enrolled at University 3. The differences between summative commentary estimates of reports written for preservice teachers enrolled at University 1 and University 2, and University 2 and University 3 were not significant.

It is possible that the report form used by University 1, in which supervising teachers were not required to write comments against individual Elements, may have encouraged staff to provide more information in the summative commentary than the other two universities, and hence reference more Standards. However, the differences in summative commentary of reports written for preservice teachers enrolled at between University 1 and University 2 were not significant. This finding tends to negate the proposition that the Report form may have impacted on differences identified.

9.4.4 Difference in summative commentary by Standards referencing bands

Analyses of differences amongst groups defined by Standards referencing bands were undertaken. The results of this analysis are reported in Appendix E²³. Reports were allocated to five Standards referencing bands. Standards referencing band 1 represents those Standards that were most referenced and Standards referencing band 5 represents those Standards that were least referenced.

The purpose of this analysis was to provide a mechanism to describe the structure of referencing by supervising teachers in a manner that would be more easily interpreted than consideration of 46 Standards individually. Standards were allocated to Standards referencing bands 1 to 5, each of which was one standard deviation wide. Standards in Standard referencing band 5 were referenced the most and those in reference band 1 the least.

The analysis found that standards most reference in reports were those in Elements 1, which are concerned with knowledge of subject content, and Element 5, which is concerned with classroom management skills. Standards in Element 4, which are concerned with effective communication, were also referenced frequently.

9.5 Preservice and graduate teachers' views about the quality of the professional experience

Preservice teachers and recent graduates from three universities were invited to respond to a survey seeking views on a range of issues relevant to their professional experience. In total 800 students, recent graduates and professional experience office staff completed or partially completed the survey. The survey collected information concerned with:

1. characteristics of respondents and their teacher preparation including their age, gender, university, focus of their preparation (early childhood, primary or secondary teaching), course type (double degree; four-year integrated degree; three-year content degree followed by a one-year, graduate-entry teacher education course; three-year content degree followed by a two-year, graduate-entry teacher education course), and stage of course progression;
2. arrangements and processes for their professional experience; and
3. outcomes of their professional experience.

9.5.1 Respondent characteristics and their teacher preparation

Survey respondents were asked to indicate their gender and age. Approximately 85% of the respondents were female. Just under half (49%) of respondents were aged over 30 years. Indicating the increasing importance of mature-aged entry to the recruitment of teachers. The distribution of male and female respondents across the age groups was similar.

²³ Appendix E is available from authors on request.

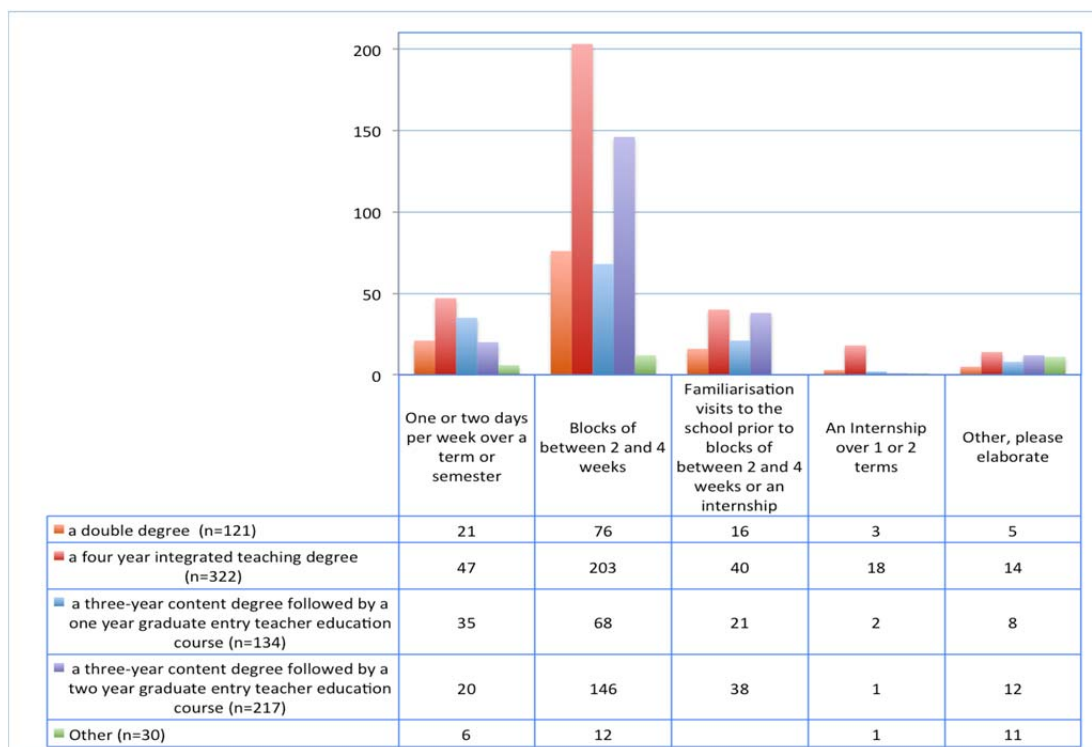


Figure 9.7: Response by form of professional experience and course type

The percentage of respondents from each university was: 20% University 1; 71% University 2; 6% University 3 and with 2% other universities. Of these respondents, 33% were preservice teachers yet to undertake professional experience, 54% were preservice teachers who had undertaken some professional experience, 12% were graduate teachers and 1% were staff working in University Professional Experience offices. Of these 15% of the respondents indicated they were in the first year of their course, 35% indicated they had completed one or more years of their course, 37% were in the final year of their course, 6% had commenced fulltime teaching and 7% indicated some other form of employment, including casual teaching.

Figure 9.7 above, reports on the nature and duration of professional experience undertaken by course type. The most common form of professional experience undertaken by survey respondents was 'Blocks of between two and four weeks'. Some 505 of the 800 survey respondents undertook this form of professional experience. This distribution is more likely a factor of the high proportion of students University 2 responding to the survey than any other factor.

9.5.2 Professional experience arrangements and processes

Respondents were asked questions about arranging and planning their professional experience, and support for their professional experience. In approximately two thirds of cases (64.1%) the respondents indicated that they had either arranged or made the initial contact for arranging the professional experience placement. These data highlight on the one hand the difficulties experienced by universities trying to arrange professional experience placements, and on the other, the pressures being felt by schools to offer places.

Respondents were asked a range of questions relating to planning for the professional experience, namely engagement with, and support from, the school principal, school executive, school professional experience coordinator and supervising teachers (Figure 9.8). Almost 60% of respondents answering the two questions about their first engagement with the school indicated that they visited the school prior to their professional experience.

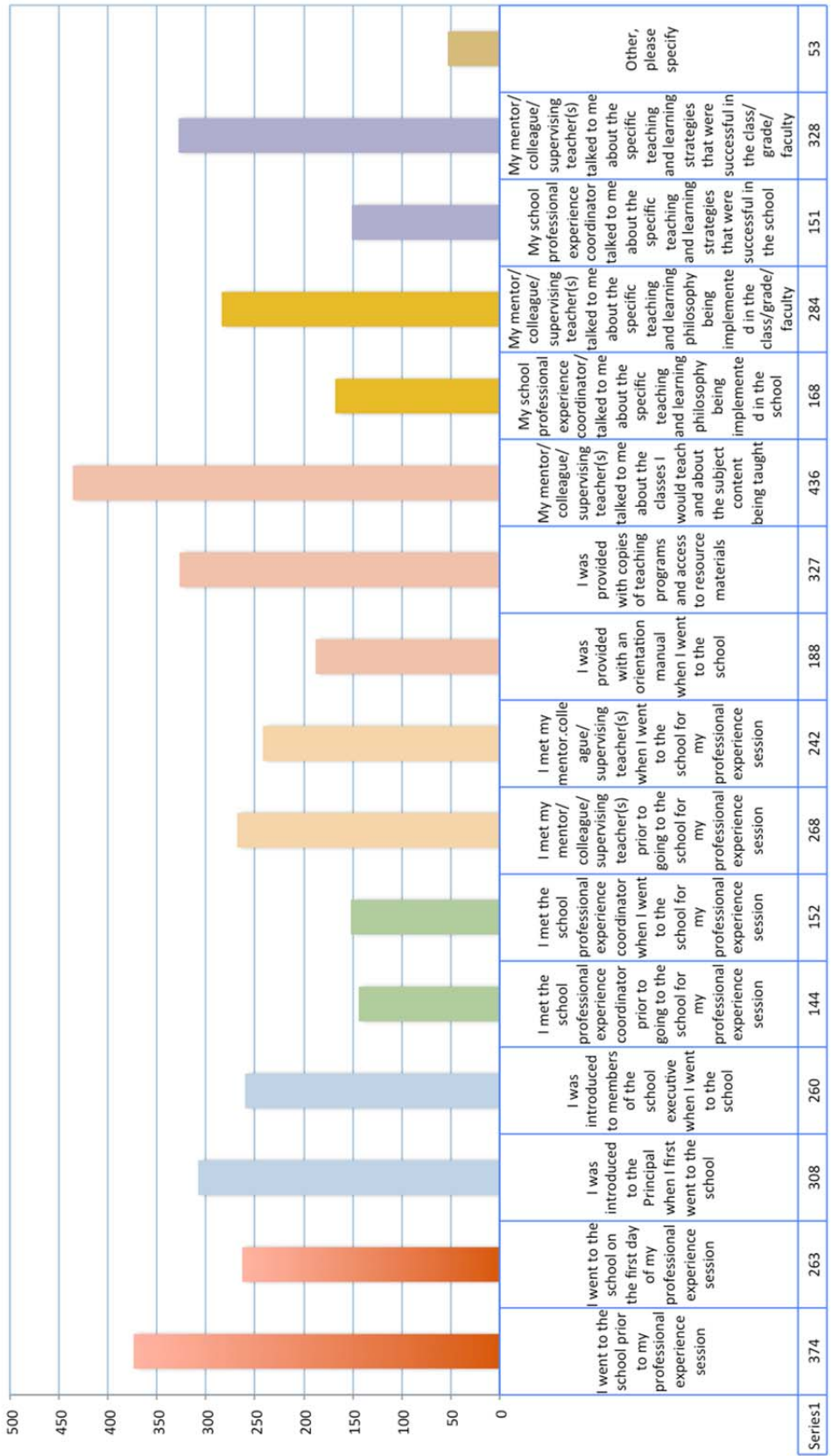


Figure 9.8: Planning for professional experience

Significant numbers of respondents indicated that they met with the principal ($n=308$) and members of the school executive ($n=260$) when they first went to the school. This suggests that school principals see themselves as having a responsibility for, and a vested interest in, the success of the professional experience. Similar numbers of respondents indicated that they met the school's professional experience coordinator prior to, and when they commenced, their professional experience placement. This was also their experience in relation to when they met their assigned supervising teacher or cooperating teacher, with about half indicating that they met these teachers prior to commencing their professional experience session.

The number of respondents who indicated that they met their supervising teacher is greater than the number who indicated that they met with the school's professional experience coordinator. This suggests that some schools may not have a designated officer to act as professional experience coordinator.

Around half of the respondents ($n=327$) indicated that they were provided with an orientation manual when they went to the school. This was less than the number ($n=436$) who indicated that they were provided with copies of teaching programs and access to resource materials when they attended the school. The findings indicated that supervising teachers had a greater role than professional experience coordinators in talking to preservice teachers about the specific teaching and learning philosophy being implemented in the school, and the specific teaching and learning strategies being implemented in the class or grade.

Overwhelmingly, respondents indicated that the assigned supervising teacher was the most important influence on the professional experience session. The perceived importance of supervising teachers to the success of the professional experience suggests that any policy action undertaken to strengthen the professional experience needs to focus on strengthening the capacity of these teachers.

9.5.3 Rasch Analysis of survey responses

Survey respondents were asked to respond to Likert-scale items, including items about the extent to which their university preparation and professional experience had contributed to attainment of the *Professional Teaching Standards* (NSWIT, 2005) and specific questions about the perceived importance of a range of school foci and the extent to which the professional experience had prepared them for teaching in difficult to staff schools. Responses to survey questions were coded according to the Likert scores awarded by respondents and entered into Rasch using a Partial Credit Model. Standard, or question estimates and respondent estimate reliabilities of 0.82 and 0.95, respectively, indicate highly reliable separation of these estimates on a linear scale.

The Rasch analysis and the high reliability estimates mean that most respondents who respond in a certain way on a question typically respond in similar ways on other questions. Reasons for cases where this does not occur, referred to in Rasch as underfit, are varied. It may be seen as these issues were not addressed in their training to the depth expected, or alternatively, it may relate to not having had experiences or a chance to apply the knowledge acquired in the school where the professional experience was undertaken.

There were two areas where there were underfitting questions. The first area was related to the extent that teacher education courses prepared respondents with knowledge about: social, ethnic and cultural backgrounds of students; knowledge and understanding of strategies for teaching, including the teaching of literacy to Aboriginal and Torres Strait Islander students; students with Special Education Needs; Non-English Speaking Background students; and students with challenging behaviours.

The other area of underfit of questions concerned the extent of preparation for: teaching in challenging schools; schools with high Aboriginal enrolments; rural and remote communities; and schools with high student welfare needs. Underfitting questions indicate that responses to the questions did not show a consistent pattern across the cohort of respondents. One explanation for the lack of endorsement, i.e., underfit, is the variability across contexts related to these questions. These results are very similar to findings identified in the Validation of the Standards (Baxter, et al., 2006).

Questions or Standards that exhibit overfit represent questions or standards to which the responses exhibit a pattern that was stronger than predicted by the model. Respondents who answered a particular question a certain way would be very consistent in the way they answered these other questions. Questions or Standards exhibiting overfit were:

During your initial most recent/most productive professional experience, you will be looking for or were provided with opportunities to:

- *Demonstrate knowledge of a range of appropriate and engaging resources and material to support students' learning.*
- *Establish supportive learning environments where students feel safe to risk full participation.*
- *Demonstrate strategies to create a positive environment supporting student effort and learning.*
- *Demonstrate knowledge of principles and practices for managing classroom discipline.*
- *Understand specific requirements for ensuring student safety in schools.*
- *Demonstrate knowledge of the importance of teamwork in an educational context.*

During your initial/most recent/most productive professional experience, which of the following will you be looking for OR did you experience to make the placement valuable for your teacher preparation:

- *Confidence to succeed as a teacher.*

9.5.4 Differences and trends amongst question estimates

Question estimates were ranked out of 58 to determine areas of the Standards and questions rated highest by survey respondents. This analysis combines the 46 Standards, the eight questions about Focus areas for the professional experience and the 4 questions about Preparation for teaching in ITQ NP priority areas. This ranking is reported in Figure 9.9.

In summary, the extent to which university programs prepared respondents to address the four standards in Element 1 were ranked 35, 19, 31 and 43, respectively. 'Providing pedagogic knowledge' was ranked highest, and 'Information and communications technological skills' was ranked lowest.

Similarly, the extent to which university programs were reported to prepare respondents to address the six standards in Element 2 were ranked 5, 30, 12, 26, 38 and 46, respectively. Respondents rated their achievement of knowledge, respect and understanding of social, ethnic, social cultural and religious backgrounds on learning highest. Knowledge of literacy strategies to address the needs of Aboriginal and Torres Strait Islander students, students

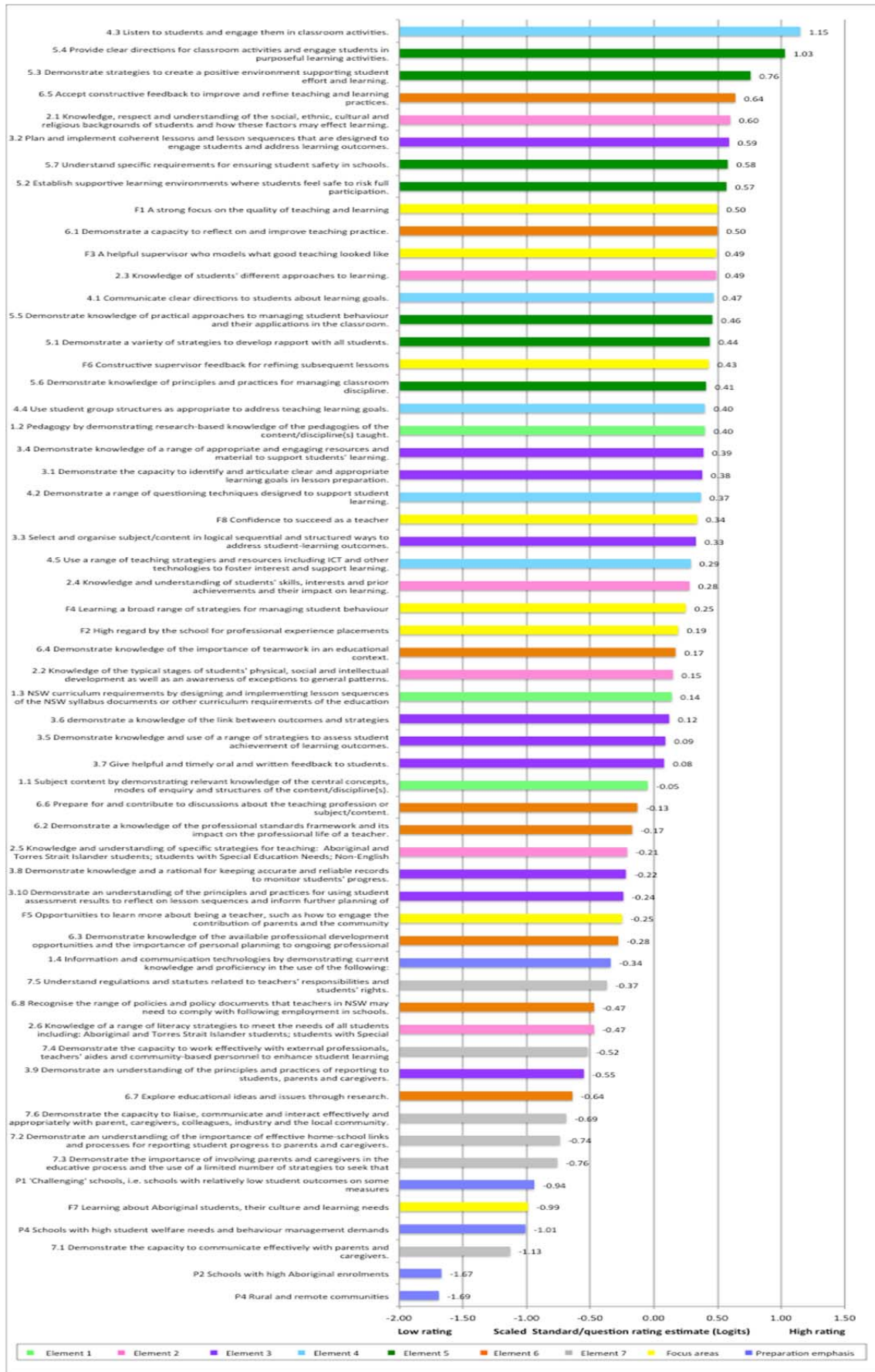


Figure 9.9: Graduate Standards and questions ranked from most to least referenced

with Special Education Needs, Non-English Speaking Background students and students with challenging behaviours was ranked lowest. Overall, the rankings for the extent to which university programs prepared respondents in these areas was low.

Respondents were also asked the extent to which their professional experience prepared them to address the Graduate Standards in the remaining Elements.

The ten standards in Element 3 were ranked 21, 6, 24, 20, 33, 32, 34, 39, 48 and 40, respectively. Although respondents rated their capacity to plan lessons and lesson sequences highly, the rankings of the achievement of standards related to assessment and reporting were comparatively low.

Standards in Element 4 were ranked relatively high, with rankings in standard order of 13, 22, 1, 18 and 25. Respondents rated their capacity to listen to and engage students highest of all standards. Lowest ranked for this element was their capacity to use a range of teaching strategies and resources including ICT.

On average, the seven standards in Element 5 were ranked the highest of all Elements by respondents. Their rankings in standard order were 15, 8, 3, 2, 14, 17 and 7 respectively. The impact of the professional experience on respondents' capacity to provide clear directions to classes was ranked second highest across all standards. Although the ranking was still relatively high, the lowest ranked standard in this Element was in the capacity to demonstrate knowledge of principles of classroom management.

The rankings of the eight standards in Element 6 were highly variable, with rankings of 10, 37, 42, 29, 4, 36, 49, and 45 for each standard, respectively. Knowledge of teamwork received the highest ranking and capacity to use research received the lowest. The six standards in Element 7 were ranked the lowest across all Elements, with rankings of 56, 51, 52, 47, 44 and 50, respectively.

In addition to achievement of the standards, respondents were asked to rate the importance of a range of school characteristics and support mechanisms that they had experienced in their professional experience. For convenience and in order to recognise them as a group of questions, they were designated as focus areas F1 to F7 on the graph. They are listed below together with their relative rankings out of 58.

	Rank order (Taken from Figure 2.7)
F1. A strong focus on the quality of teaching and learning	9
F2. High regard by the school for professional experience placements	28
F3. A helpful supervisor who models what good teaching looked like	11
F4. A helpful supervisor who models what good teaching looked like	27
F5. Opportunities to learn more about being a teacher, such as how to engage the contribution of parents and the community	41
F6. Constructive supervisor feedback for refining subsequent lessons	16
F7. Learning about Aboriginal students, their culture and learning needs	54

In general, preservice respondents rated a school focus on quality of teaching, helpful supervisors who model good practice and constructive feedback as being most important. Learning about Aboriginal students and their culture, and having opportunities to learn about

being a teacher, such as how to engage with parents and the community, were rated as least important by respondents with rankings of 41 and 54 out of 58.

The third group of questions concerned the extent to which the professional experience prepared respondents to work in a variety of difficult to staff schools. As with the previous group, these were designated P1 to P4 to distinguish them from other groups of questions. The questions and their respective rankings are listed below.

	Rank order (Taken from Figure 2.7)
P1. 'Challenging' schools, i.e., schools with relatively low student outcomes on some measures	53
P2. Schools with high Aboriginal enrolments	57
P3. Rural and remote communities	58
P4. Schools with high student welfare needs and behaviour management demands	55

These data demonstrate that respondents assigned a low ranking to the extent that professional experience prepared them to work in such schools.

9.5.5 Differences amongst groups of responses

Respondent estimates were disaggregated on the basis of a range of respondent, teacher education program, professional experience and school characteristics. The differences amongst the groups were statistically significant in three cases.. These were in relation to:

- geolocation;
- form of the program of preparation; and
- whether respondents were responding to the questions in terms of their initial, most productive or most recent professional experience.

9.5.5.1 Differences arising from geolocation

The data indicate that preservice teachers undertaking their professional experience in provincial schools rated their achievement of the standards and preparation for teaching more highly than their metropolitan counterparts ($p=0.017$).

9.5.5.2 Differences arising from form of preparation

Preservice teachers undertaking a 'four-year integrated degree' scored their achievement of the standards and preparation for teaching higher than preservice teachers undertaking a 'three-year content degree followed by a two year teacher education qualification' ($p=0.017$).

9.5.5.3 Initial, most productive or most recent professional experience

Univariate analysis indicates an overall difference amongst the scores ($p=0.048$). Subsequent post hoc analysis indicates that response scores of respondents commenting upon their initial and most recent professional experience are significantly different ($p=0.039$). Respondents who answered the questions in terms of their initial professional experience scored their achievement more highly than respondents who answered the questions in relation to their most recent professional experience. This difference most likely indicates that preservice teachers early in their preparation, that is those who have had little experience in the classroom, are yet to appreciate fully the difficulties of their role.

9.5.5.4 Participation in the reform initiatives

A critical question for the evaluation was whether C4E prepared preservice teachers for teaching better than other schools. Survey responses were disaggregated on the basis of the participation in the reforms of the school where the professional experience was undertaken. While 73 of the 511 respondents completing the survey were from preservice teachers undertaking preparation in spoke schools, only seven respondents indicated they had undertaken their professional experience in C4Es. The subsequent univariate analysis of the data found no significance overall differences arising from participation in the reform initiatives.

The lack of finding on this question is most likely a function of the small response from respondents undertaking their preservice in C4Es.

9.5.6 Reported feedback to preservice teachers

Five hundred and two preservice teachers who had undertaken professional experience in NSW and Graduate Teachers who were working towards accreditation at the Professional Competence career stage and who had undertaken professional experience in NSW completed respective Professional Experience Surveys. The number of respondents who undertook or were to undertake their professional experience placement in each category is summarised in Table 9.1

Table 9.1: Number and type of respondents undertaking professional experience in school categories

	C4E/Spoke	Non-C4E	Not specified	Outside NSW
Preservice teacher (No prior professional experience)	34	101	112	6
Preservice teacher (prior professional experience)	61	192	156	14
Graduate Teacher working towards accreditation with NSWIT	11	35	44	3

Open-response questions in the surveys sought to elicit commentary concerning the most important piece of feedback that the respondents had received in relation to each of the seven Elements in the *Professional Teaching Standards*. The nature of the feedback was clearly differentiated, which enabled coding in several different categories and at several different levels. In the first instance the comments were coded as commentary about feedback received while on professional experience or other. The commentary about feedback received while on professional experience was sub-divided into two further categories: comments concerning the substance of feedback received and preservice teachers' and graduate teachers' evaluations of the feedback or lack of feedback received. The substance of the comments concerning feedback received while on professional experience was coded using the following categories:

- related to Standards in the specified Element only;
- related to Standards in the specified Element and other Element(s);

- related to Standards in other Elements only;
- a general statement related to the specified Element;
- a general statement related to other Elements only;
- related to teaching or qualities of teachers that were unrelated to the Standards and Elements;
- explicit positive evaluation of feedback by respondent; and
- limited, poor or no feedback received in relation to the specified Element.

The coding protocol focused on the most specific, Standards-based aspect of responses, thereby preventing multiple coding. The categories were, therefore, mutually exclusive.

Two hundred and ninety-nine (59.6%) of the 502 preservice teachers who had undertaken professional experience in NSW and Graduate Teachers who were working towards accreditation at the Professional Competence career stage and who had undertaken professional experience in NSW provided sufficiently detailed information to enable the school at which they had undertaken their most recent or last professional experience placement to be classified as a C4E, Spoke or non-C4E school and/or identification of the sector.

The analysis of the aggregated data across C4E, Spoke and non-C4E schools showed that over 70% of the reported feedback aligned with specific Standards at the Graduate Career stage and the general Elements (Figure 9.10). Within this feedback, the greatest proportion concerned Standards in relation to specified Elements, indicating that the feedback was highly focused. Yet there was also a high proportion of the feedback that referred to specified Elements in conjunction with other Elements or that referred to other Elements only. One interpretation of this finding is that the preservice teachers received feedback that indicated interrelatedness of Standards in teaching practice.

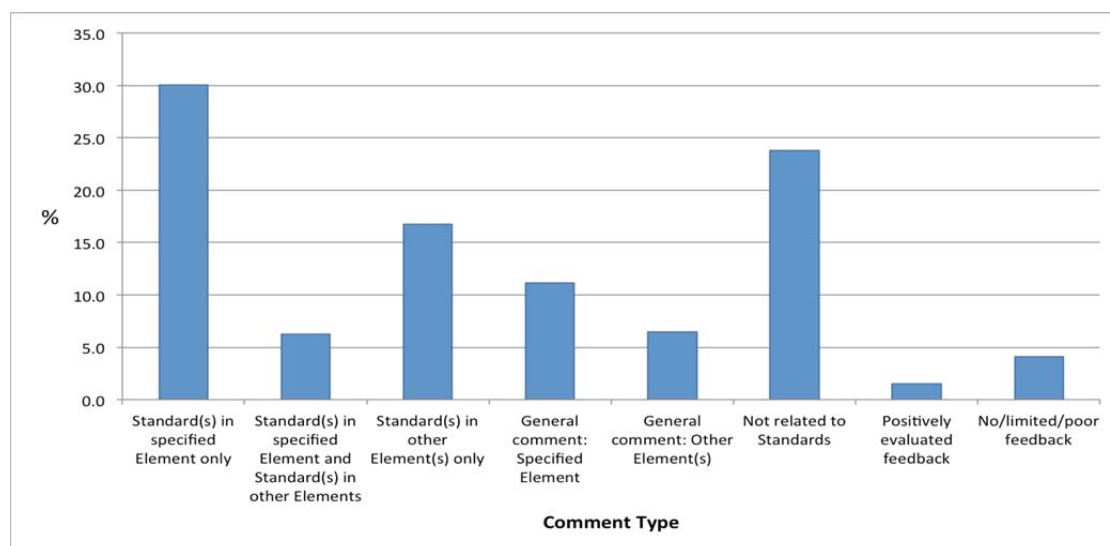


Figure 9.10: Nature of feedback received about professional experience across C4E, Spoke and non-C4E schools combined

Almost one quarter of the commentary in the aggregated data set referred to feedback that did not relate to the Standards. Such feedback was usually generic, relating to general aspects of professional practice beyond the Standards (e.g., innovation) and personal qualities (e.g., patience). A small proportion of the commentary concerned the preservice teachers' and

graduate teachers' evaluations of the feedback they received or did not receive. Such evaluations were mixed.

When the data were disaggregated and analysed according to comment type per school type, negligible variation was observed between C4E/Spoke and non-C4E schools (Figure 9.11) and the overall trend exhibited mirrored the trend in the data for all preservice teachers and Graduate teachers (Figure 9.10).

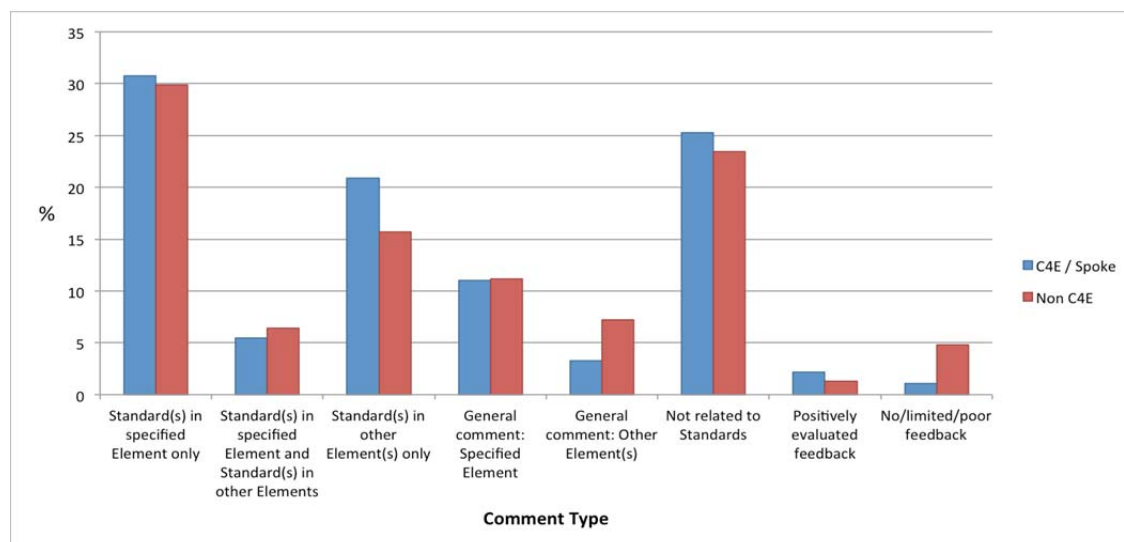


Figure 9.11: Nature of feedback received about professional experience for respondents of C4E/Spoke and non-C4E schools

9.5.7 Commentary about professional experience

Sixty-six interviewees across 22 C4Es provided explicit commentary about contextual information and actual practices that were relevant to the provision of professional experience to preservice teachers in their respective schools. The commentary was rich in detail and multifaceted; there were prominent themes that exhibited high degrees of commonality as well as some divergence. Prominent themes included the importance of the HAT (or equivalent) role in supporting professional experience, the high number of preservice teachers undertaking professional experience in C4E schools, a conducive culture in C4E schools and explicit evaluations of C4Es.

The importance of the HAT (or equivalent) role and/or the work of the person occupying the role had a high profile across the interview corpus. Interviewees across all roles highlighted formal programs that HATs (or equivalent) had designed, developed and delivered. Such programs were usually school-wide; they often involved collaborations with universities; and sometimes they were implemented across schools.

The programs variously included:

- involvement of preservice teachers in whole-school, day-to-day activities;
- professional development specific to preservice teachers;
- professional development with the school staff;
- the use of ICT/video to record and reflect upon preservice teachers' teaching practice; and/or
- close links with the community.

Thus, the programs supported the preservice teachers' pedagogy, their use of technology, their understanding of the spectrum of teachers' work and/or community relations.

Commentary was also provided about the impact of such programs, e.g.,

I had an induction meeting with the students, and then we provided three sessions for them throughout their practicum. ... very practical, very real sorts of workshops. ... And as we refined the process over the years we saw a greater, I guess, output from our students that we had through. ... and then as we refined it and got that feedback there's certainly an increase in performance from, yeah. (HAT (or equivalent), SC.16, Turns 266 & 274)

we get each of them to do at least one video recorded lesson through our connected classroom with [university name deleted], and it's called our Virtual Synchronous [Supervision] Project, whereby it's normally a Lecturer or someone up at [university name deleted] who's actually watching the student from that Faculty do their lesson, they record it, they give them some feedback, it's all recorded. We give them feedback here as well ... we're constantly fine-tuning our program ... [and] we really listen to what our preservice teachers are telling us in terms of how we're actually meeting their needs. (HAT (or equivalent), Turn 69)

The support of HATs (or equivalent) for supervising teachers was also reported and evaluated highly by experienced teachers and less experienced teachers alike. One experienced teacher, for example, commented:

I did not have a very positive experience with my preservice teacher and she [the HAT (or equivalent)] was with me the entire way. ... [and the HAT (or equivalent)] tried very hard to help and support my preservice teacher (Experienced Teacher, SC.13, Turn 233)

Conducive environments in C4Es were another prominent theme presented in the commentary. Interviewees at many sites indicated that the conducive environment at their respective C4Es enhanced preservice teachers' professional experience. The features that were identified as providing a conducive environment varied. They included supportive and accommodating staff, the professionalism of supervising teachers, high expectations regarding preservice teachers' integration into the life of the school, receptive students, and high quality facilities, as illustrated in the following comments.

Quality teaching. ... The dedication of the staff, the attitude of the staff, that's the key thing of this school, it's the staff, they are dedicated, they're devoted, and if they're going to do a job they'll do it to their highest degree, the best of their ability. And when a prac student comes here, that's what they should expect. Yeah. Um, they'll get help from everybody; nothing is too hard for somebody to get up and give them, offer them advice, or help, or, so that's the biggest asset for this school. (Teacher, SC.8, Turns 162 & 166)

I mean, contextually, if you think here, we're a very easy school; if you [preservice teachers] can't pass a prac. at this school, then teaching is not meant for you [them]. Our kids won't challenge you [them]... they are very well disciplined, you [preservice teachers] actually get to teach in this school, whereas other schools it's more about learning how to discipline first, and then the teaching comes later; so you [preservice teachers] really, here can have a good experience of prac. (Teacher, SC.19, Turns 374 & 376)

The commentary also indicated that most C4Es in metropolitan areas hosted high numbers of preservice teachers undertaking professional experience and that the numbers had increased significantly since being assigned C4E status. C4Es are therefore making a very significant contribution to the number of preservice teachers undertaking professional experience, as indicated by the following statements.

Anyway, at the moment we probably have a prac student in at least two classrooms every week of the term. We have prac students here all the time. (Principal, SC.11, Turn 84)

In 2008 we had eight students. In 2009 we took 13. Then we start the National Partnership. In 2010 we had 25 Prac students, or preservice students, and in 2011 we had 20, so that's over a 100% increase. (Principal, SC.14, Turn 139)

It was reported that the high number of preservice teachers undertaking professional experience had created undue burden in some schools and measures have been needed to alleviate the situation, as indicated below.

we've cut back a little bit, we still have, but when I first came they were continuous throughout the whole year. ... And we did have to make a, we made a judgement that this is probably not in the best interest for the school and for the students. So we've cut back, and we've limited teachers, I think you're [teachers are] allowed to have two a year... instead of one a term now. Like, so that has helped; that's really helped, because then when you [teachers] do have a student you're [teachers are] willing to spend that, you know, you've [teachers have] got that little bit of time, it's not [going to impact on their class for the whole of the year]. (Assistant Principal, SC.6, Turns 146, 148 & 150)

Some interviewees explicitly evaluated the quality of professional experience offered in C4Es in comparison to other schools. Although, much of the commentary was positive, there was a dissenting view that all schools should provide quality support for preservice teachers. The following comments illustrate the divergent views.

our preservice teachers I think have really come in to a school that's offered a far broader and deeper induction program that they would have got had the HAT position and the C4E not existed. (HAT (or equivalent), SC.5, Turn 10)

Um, I think we offer them opportunities that perhaps they wouldn't get at other schools. (Executive, SC.8, Turn 158)

Well, I mean, I don't, I don't see the C4E being any different to any other school that has student teachers in their, in that school. (Assistant Principal, SC.4, Turn 237).

9.6 Summary to Evaluation Question 5

The analyses presented above sought to explore whether the teacher quality initiatives implemented by C4Es enabled them to provide higher quality professional experience for preservice teachers than schools that did not participate in the initiative. The findings from the different data sets addressed Evaluation Question 5 from a range of perspectives and to varying degrees. Surveys 1 and 2 and the interviews provided qualitative data and descriptive insights into the practices implemented by C4Es. The analysis of professional experience reports provided a different avenue for examining the quality of supervision. Further, responses to the Preservice Teacher Survey provide a balance to the views of teachers about the efficacy of the preservice gained through surveying and interviewing principals, school executives and teachers responsible for providing the professional experience.

The evaluation examined a number of quality frameworks underpinning the professional experience. These included the *Professional Teaching Standards* (NSWIT, 2005), the criteria and guidelines provided by universities, and school-level monitoring processes.

Analyses of responses to the Surveys 1 and 2 demonstrated strong support for the use of the *Professional Teaching Standards* (NSWIT, 2005) as a framework for preparing preservice teachers. Overall, however, the analysis of the summative commentaries in Professional Experience Reports identified the capacity of supervising teachers to articulate detailed and appropriate, Standards-referenced teaching practice as an issue. It also identified that supervising teachers were not a homogeneous group in terms of articulating appropriate, Standards-referenced teaching practice. The analysis showed variable demonstrated capacity

amongst teachers to use the Standards to make judgements about the capacity of preservice teachers to work independently. There were also clear patterns amongst the standards referenced by supervisors. Standards concerned with knowledge of content, classroom management and communication skills were referenced most. Standards concerned with working with parents and the wider community and with broader professional responsibilities were among those referenced least.

These findings are corroborated by the analysis of Survey commentary, which found that Survey respondents tended to discuss practice in terms of a subset of the standards within the *Professional Teaching Standards* (NSWIT, 2005).

Analyses of differences amongst groups of survey respondents found differences in the responses of metropolitan and provincial respondents, primary and secondary respondents and HATs (or equivalent) and teachers. There were no differences in the response to the Standards of teachers in C4E and non-C4E schools. Rasch analysis of a text analysis of Professional Experience Reports found differences in the Professional Experience Report commentary on the basis of location, program classification and university. Supervisors from spoke schools demonstrated greater capacity to articulate Standards-based practice than teachers in non-ITQ NP schools.

Other quality frameworks include the guidelines and frameworks provided by universities to support teachers' supervision of the professional experience. Although there was general support for the guidelines provided by universities, the level of support was not rated at the highest level. Although supervising teachers are responsible for making the judgement of whether a preservice teacher has met the graduate standards, just over half of survey respondents thought that the benchmarks set by universities were too low.

Generally preservice teachers provided positive evaluations of the level of support schools provide for the professional experience. Responses from the preservice teachers identified the supervising teacher as the most important influence on the success of their professional experience. Consequently, efforts to improve the quality of professional experience need to focus on the capacity of supervising teachers to provide effective analysis of teaching practice, guidance and support for quality teaching practices. As noted above, however, the analysis of professional experience reports indicates that this capacity is not uniformly demonstrated, with many supervising teachers demonstrating inability to articulate effective practice against the professional standards.

As with teachers currently practicing, there are divergent views amongst preservice teachers about the extent the professional experience has prepared them to engage with the *Professional Teaching Standards* (NSWIT, 2005). This variability is a function not only of the support they received during their professional experience, but the contexts in which the professional experience occurred.

Rich commentary was provided concerning the context and actual practices of professional experience in C4E schools. The semi-structured interview commentary, for example, reported:

- the importance of the HAT (or equivalent) role;
- the work performed by HATs (or equivalent) in supporting professional experience;
- the high number of preservice teachers undertaking professional experience in C4Es; and
- conducive environments in C4Es.

Interviewees across all roles highlighted the importance of the HAT (or equivalent) role and/or the nature of the work of the person occupying the role in the provision of quality professional

experience. The importance of the time and availability of HATs (or equivalent) to work with preservice teachers and supervising teachers was emphasised, e.g.,

the support that was provided to them in the HAT role is something that I think was really valuable ... Someone there who could actually be there and have meetings with them [preservice teachers] on a weekly basis; someone for them to approach and to be able to mentor them when they were having issues, or just to discuss how they were going on a day to day basis was another valuable thing. (Teacher, SC.8, Turns 89 & 91)

Interviewees consistently commented on formal programs that HATs (or equivalent) had designed, developed and delivered to support preservice teachers undertaking professional experience and/or supervising teachers. The programs described frequently involved collaboration or consultation with universities. The importance of the time and availability of HATs (or equivalent) to liaise with universities also had a high profile in the commentary.

Interviewees at many sites indicated that a conducive environment at their respective C4Es enhanced the professional experience for preservice teachers. The features that were identified as providing a conducive environment included:

- supportive and accommodating staff;
- professionalism of supervising teachers;
- high expectations regarding preservice teachers' integration into the life of the school; and
- high quality facilities.

The commentary also indicated that most C4Es in metropolitan areas hosted very high numbers of preservice teachers undertaking professional experience, and that the numbers had increased significantly since being assigned C4E status. C4Es have, therefore, been making a very significant contribution to the number of preservice teachers undertaking professional experience.

Commentary from the semi-structured interviews also provided some personal, comparative assessments of professional experience provided in C4E schools and non-C4E schools. Such personal assessments were mixed. Some interviewees claimed that the nature of the professional experience offered in C4Es was superior and this was predominately attributed to the perceived impact of the HAT (or equivalent) role. Other interviewees indicated that quality professional experience was the responsibility of all schools. Additionally, 90.5% of respondents who completed Survey 2 indicated that they agreed or strongly agreed with the statement: "Contributing to the development of new members of the profession is a professional responsibility of *all* teachers" (emphasis added), thereby indicating that school type ought not be a distinguishing factor.

Respondents to Surveys 1 and 2 also provided commentary concerning frameworks and strategies that schools need to provide to ensure that professional experience programs prepare preservice teachers adequately for teaching in the full range of teaching situations that exist in NSW schools. The respondents, all of whom were from C4E, Spoke and Low SES schools, indicated:

- the necessity of structured programs (e.g., induction programs and supervisor training);
- school policies concerning professional experience;
- the allocation of high quality supervising teachers;
- exposure of preservice teachers to a diversity of teaching situations within and across placements; and
- lesson observations both of and by preservice teachers.

Alignment of professional experience with the Standards specified for the Graduate Teacher career stage in the *Professional Teaching Standards* (NSWIT, 2005) was a prominent feature of the analyses of the data from Surveys 1 and 2, the Professional Experience Surveys and the Professional Experience reports. The focus on the Standards enabled assessment of the extent to which professional experience contributed to or supported preservice teachers' attainment of the requisite knowledge and skills stipulated for the Graduate Teacher career stage.

Aspects of the qualitative analysis of the Professional Experience Surveys also enabled comparative analysis of professional experience undertaken in ITQ NP schools and non-ITQ NP schools. In particular, preservice teachers who had undertaken professional experience in NSW and Graduate Teachers who were working towards accreditation at the Professional Competence career stage and who had also undertaken professional experience in NSW provided commentary concerning feedback they had received. The findings of the qualitative analysis of the Professional Experience Surveys indicated negligible difference between the nature of feedback received at ITQ NP schools and non-ITQ NP schools.

The data concerning the contexts and practices in the provision of professional experience in C4Es is comprehensive. However, the commentary concerning whether the teacher quality initiatives implemented by C4Es enabled them to provide higher quality professional experience for preservice teachers than schools that have not participated in the initiatives is limited.

9.7 Overall Summary for Evaluation Question 5

- Whilst it is beyond the scope of this evaluation to comment upon the quality of graduates, C4Es provided environments where support for the professional experience is augmented and focused through the HAT (or equivalent) role to provide an increased emphasis on quality teaching and collaborative practices fundamental to strengthening the capacity of supervisors to effectively support of the professional experience.
- Preservice teachers indicated that supervising teachers have the greatest influence on the success of their professional experience and as such should be the focus of any initiatives to improve the professional experience.
- There is a need to provide supervising teachers with professional support on how to assess and describe teaching practice against professional standards (NSWIT, 2005; AITSL, 2011b).
- Supervising teachers in ITQ NP schools were more able to describe teaching practice in terms of the *Professional Teaching Standards* (NSWIT, 2005) than teachers in non-ITQ NP schools.

10 Evaluation Question 6 and Sub-questions 6a and 6b: Professional Experience Theme

This Chapter addresses Evaluation Question 6 and the two associated sub-questions:

Evaluation Question 6: How cost effective are professional experience programs delivered through Centres for Excellence?

- a) What are the variations across sectors in effective professional experience delivery?
- b) What constitutes an effective relationship between schools, training institutions and employers in the development and delivery of high quality professional experience?

This Chapter presents an overview of the findings of analyses of responses provided in the suite of online surveys for school personnel and preservice teachers, commentary from semi-structured interviews conducted with school personnel in 22 C4Es, and 550 professional experience reports for preservice teachers enrolled at three universities in NSW. Each of these data sources contributed variously to Evaluation Question 6 and the associated sub-questions, 6a and 6b, as shown in Table 10.1.

Table 10.1: Contribution of data sets to Evaluation Question 6 and Sub-Questions

	Surveys 1 & 2	Professional Experience Surveys	Site-Visit Interviews	Professional Experience Reports
Evaluation Question 6			✓	
Evaluation Question 6(a)		✓		✓
Evaluation Question 6(b)	✓		✓	

10.1 Evaluation Question 6: How cost effective are professional experience programs delivered through Centres for Excellence?

10.1.1 Introduction to Evaluation Question 6

The semi-structured interviews addressed the cost effectiveness of the professional experience programs offered through C4Es. The interview schedule for the onsite interviews posed the question of the cost effectiveness of professional experience to principals, HATs (or equivalent) and other executive members. The respondents predominantly referred to opportunity costs and responsibility to provide high quality professional experience.

10.1.2 Findings for Evaluation Question 6

Commentary from the interviews was the only data source that was germane to the analysis of the cost effectiveness of the professional experience programs offered through C4Es. Evaluation

Question 6 was posed as an interview question to principals, HATs (or equivalent) and other executive members only. Personnel from nine of the 22 interview schools provided responses.

Financial costs were identified for:

- preservice teachers undertaking professional experience in provincial areas and/or other locations that were difficult to access;
- local communities if they invest in supporting preservice teachers' accommodation, etc., to attract them to regional areas; and
- schools providing resources, e.g., induction packages, for preservice teachers.

Beyond these specific examples, however, commentary focused on opportunity costs. Moreover, the interviewees often explicitly rejected the notion of financial cost in favour of opportunity costs. Opportunity costs are the benefit, profit, or value of something that must be given up to acquire or achieve something else. An example of discussion of opportunity costs was:

*To me **there's probably not a monetary cost**, I think it's the time – well time, personal time, as that classroom teacher and that supervisor that you have to spend with, and (1) I find that difficult because being an AP and the roles I have there, it's very difficult because I don't think I can give as much time. I think at times, depending on the level of the student, **I think it has a time cost to the children's learning**, you know it can impact if they're not, it can impact on the children's learning and **you can lose weeks of valuable learning time**.... But in saying that you have to weigh up, if we want quality teachers coming through we have to spend the time with them. We have to give them those invaluable lessons that, you know, so if they're not fantastic, we want to lead them towards, you know, ... becoming competent, confident teachers in the classroom. Yeah, **so I can't see a monetary cost**, but there's definitely **there's time cost, there could be student out time**... outcome, you know, costs as well. (AP, SC.6, Turn 131, emphasis added)*

In addition to the opportunity cost for students, other frequently-raised opportunity costs included: time cost for supervising teachers; increased workload associated with supervision, report writing and processes associated with preservice teachers who may not be performing well; fatigue resulting from supervising preservice teachers; the adverse effect that 'at risk' or failing preservice teachers can have on relationships within the school; and costs to universities' reputations if preservice teachers are not performing well, e.g.,

A prac teacher is another person they have to take responsibility for... and, to be quite frank, because of the increasing, increasing accountabilities on the Universities, with reports on prac teachers, and for, a lot of teachers are reluctant to take on a prac teacher, because they don't actually have a lot, see a lot of fun in writing voluminous reports on a prac teacher. (Principal, SC.1, Turn 68)

Our teachers are tired; they're tired of having students. It is an additional workload, and I know that they're compensated for by payment, but it's... exhausting. (HAT (or equivalent), SC.16, Turns 342 & 344)

And the cost of our relationship with staff members here. ... When you're begging someone to take one and then they're not a quality ... you know and then it's like "You told me to have one and now look what I've got, I've got to fill in these reports. I've got to fail them". (HAT (or equivalent), SC.14, Turns 852, 855 & 859)

Notwithstanding the costs that were identified however, there were robust discourses present concerning commitment to future generations in the profession and responsibility to provide high quality professional experience, e.g.,

I think we've got a responsibility to the profession (SC.16, Principal, Turn 255)

I think it's our obligation. (Principal, SC.19, Turn 170)

10.1.3 Summary for Evaluation Question 6

Some financial costs were reported for preservice teachers undertaking professional experience, local communities that may support pre-service teachers undertaking professional experience in rural areas, and schools providing resources for preservice teachers. The majority costs reported, however, were opportunity costs for executive staff, teachers, students and universities. Costs identified for executive staff included:

- time;
- adverse relationships with staff, especially if preservice teachers did not cope or perform well; and
- general disruption to the running of the school, with consequent effects for executives' work.

Costs identified for teachers included time, as well as increased responsibility, increased workload and fatigue. The time cost, fatigue and increased workload resulting from reporting requirements were the most frequently mentioned costs for teachers. Costs for universities included loss of reputation if preservice teachers did not cope or perform well.

10.2 Evaluation Question 6(a): What are the variations across sectors in effective professional experience delivery?

10.2.1 Introduction to Evaluation Question 6(a)

Responses from the suite of Professional Experience Surveys and feedback provided in the Professional Experience Reports enabled the identification of some variations in the delivery of effective professional experience across sectors.

10.2.2 Findings for Evaluation Question 6(a)

Surveys 1 and 2, the Professional Experience Surveys, site-visit interviews and Professional Experience Reports had the potential to provide insights into variations across sectors in effective professional experience delivery. Low response rates at question level for particular questions and other factors, however, limited meaningful insights to the analyses of the Professional Experience Surveys and Professional Experience Reports.

Surveys 1 and 2 combined were completed by 177 respondents from across the Government ($n=134$), Catholic ($n=26$) and independent ($n=17$) sectors. The qualitative analysis of Surveys 1 and 2 had the potential to yield insights into sectoral differences. Two of the open response questions, 7.7 and 7.8, sought to elicit commentary concerning:

- (i) frameworks and strategies that schools need to provide to ensure professional experience programs adequately prepare preservice teachers; and
- (ii) the nature of feedback provided to preservice teachers.

The response rate to each question, however, was low. The response rate per sector for open response question 7.7 was Government (55.2%), Catholic (50%) and independent (64%). The response rates per sector for open response question 7.8 were slightly higher: Government (61.9%), Catholic (57.6%) and independent (76.5%). Nevertheless, the resulting number of responses per sector, especially for the Catholic and independent sectors, was too low to enable a valid comparison of variations

The Professional Experience Surveys elicited responses concerning professional experience from preservice teachers and Graduate teachers who were working towards accreditation at the Professional Competence career stage. Two hundred and eighty-four of the 502 preservice teachers who had undertaken professional experience in NSW and Graduate teachers who were working towards accreditation at the Professional Competence career stage and who had undertaken professional experience in NSW provided sufficient detail to enable the identification of the sector in which they had undertaken their most recent or last professional experience placement: Government ($n=184$), Catholic ($n=67$) and independent ($n=33$). Not all of the respondents, however, provided commentary for all of the open response questions. Across the aggregated data set for the open response questions concerning feedback received in relation to specified Elements, the number of comments received were: Government ($n=327$), Catholic ($n=76$) and independent ($n=63$).

The comments were coded according to the categories listed in sub-section 9.5.6. Whilst the overall trend across all comment types was similar to the trend exhibited in the data for all preservice teachers and Graduate teachers (Figure 9.10 there was a marked increase in the proportion of reported feedback that was unrelated to the Standards and a corresponding decrease in the proportion of reported feedback that addressed Standards in the specified Elements in the commentary provided by respondents who undertook their most recent or last professional experience in Catholic schools (Figure 10.1).

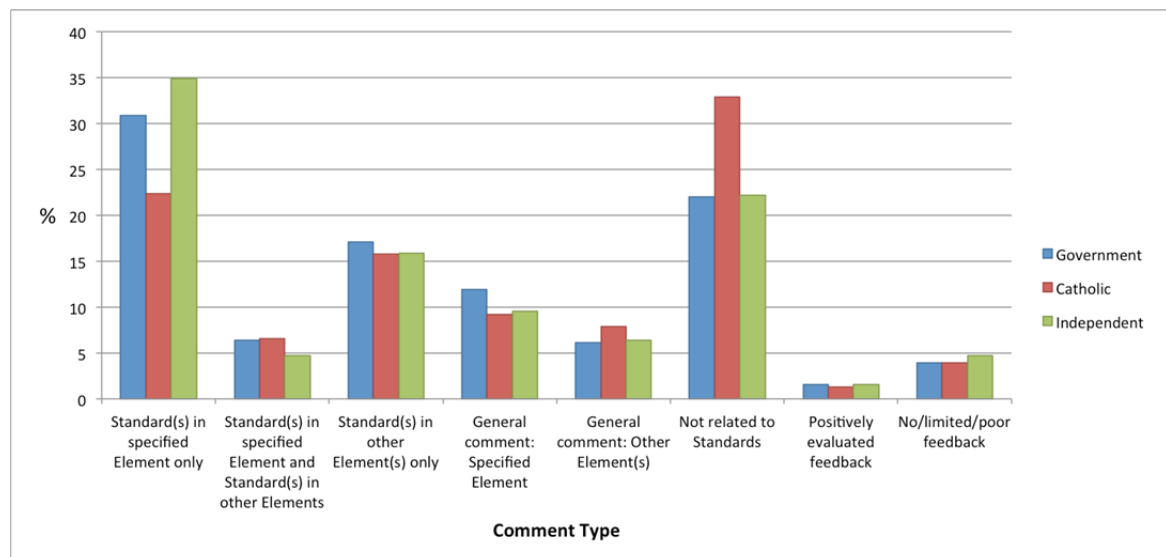


Figure 10.1: Nature of feedback received about professional experience for respondents of Government, Catholic and independent schools

The site-visit interviews also had the potential to yield insights into variations across sectors. Interviewees across all roles in the three sectors provided detailed commentary concerning actual practices to support preservice teachers undertaking professional experience in their respective schools. Both the specified sampling frame for the semi-structured interviews that comprised 17 Government; 8 Catholic; 4 independent and the actual sample that comprised 15 Government; 5 Catholic; 2 independent schools, however, precluded the comparative analysis of variations in effective professional experience delivery across the sectors.

The Rasch analysis of the Professional Experience Reports, however, yielded insights into variations across sectors in the effective professional experience delivery. Specifically, the analysis revealed variations across sectors with respect to Standards-based feedback provided by supervising teachers.

As outlined in sub-section 9.4.2, the report detail estimates developed through the Rasch analysis, provided a basis for determining the differing capacities of groups of teachers to document teaching practice. The value of the report detail estimate reflected several issues, all of them complex in their own right. Nonetheless, a significant difference was identified amongst report detail estimates across sectors.

The data were disaggregated by school sector and subjected to univariate analysis. The analysis of variance indicated a significant main effect ($p < 0.001$). The post hoc analysis determined that the source of the difference in report detail mean estimates was significant between the mean summative commentary estimates for Government and Catholic schools ($p < 0.001$) with the mean report detail estimates for reports written by supervising teachers in Catholic schools being higher than those written by teachers in government schools. No other significant differences were identified.

10.2.3 Summary for Evaluation Question 6(a)

The sampling frame for the interviews and the low response rate to open response questions 7.7 and 7.8 in the Surveys 1 and 2 precluded the identification of variation across sectors from these data sources. Commentary from the Professional Experience Surveys and Professional Experience Reports, however, did enable comparison of the nature of feedback provided to preservice teachers undertaking professional experience in Government, Catholic and independent schools.

The analysis of the Professional Experience Surveys demonstrated that whilst the overall trend across all comments was similar to the trend exhibited in the data for all preservice teachers and Graduate teachers, there was a marked increase in the proportion of reported feedback that was unrelated to the Standards and a corresponding decrease in the proportion of reported feedback that addressed Standards in the specified Elements in the commentary provided by respondents who undertook their most recent or last professional experience in Catholic schools. Thus, feedback provided by supervising teachers in the Catholic sector more frequently referenced aspects of teaching that lie beyond the *Professional Teaching Standards* (NSWIT, 2005).

Analysis of the Professional Experience Reports also enabled comparison of the nature of feedback provided to preservice teachers undertaking professional experience in Government, Catholic and independent schools. Report detail estimates developed through the Rasch analysis, provided a basis for determining the differing capacities of groups of teachers to describe teaching practice. The analysis determined that the source of the difference in report detail mean estimates was significant between the mean summative commentary estimates for Government and Catholic schools ($p < 0.001$) with the mean report detail estimates for reports written by supervising teachers in Catholic schools being higher than those written by teachers in government schools. No other significant differences were identified.

10.3 Evaluation Question 6(b): What constitutes an effective relationship between schools, training institutions and employers in the development and delivery of high quality professional experience?

10.3.1 Introduction to Evaluation Question 6(b)

Insights into relationships between schools and universities were gained from Surveys 1 and 2 and the semi-structured interviews. Findings concerning relationships other than those involved with professional experience have been presented in Section 5.4. This Section deals exclusively

with relationships between schools and universities in the development and delivery of high quality professional experience.

Commentary concerning relationships with universities in the design and delivery of professional experience was insightful. It demonstrated that schools were discerning and proactive in relationships, and that there were mutual benefits, as demonstrated by the quotes below.

we built some really good relationships with unis and we also severed some (HAT (or equivalent), SC.11, Turn 97)

I've started conversations with [university name deleted] about sitting down with the Deans, and we're going to find a time to actually nut this stuff out and look at what's still currently working really, really well, and what's, and what are some things that aren't working that well, or do we need to get rid of them, do we need to introduce new things into the training program and so forth. (HAT (or equivalent), SC.7, Turn 71)

10.3.2 Findings for Evaluation Question 6(b)

Surveys 1 and 2 and the site-visit interviews provided insights into what constitutes an effective relationship between schools and universities in the development of high quality professional experience.

Surveys 1 and 2 provided some insight into elements of effective relationships with universities. Several respondents identified school-university relationships when addressing open-response question 7.7, which dealt with frameworks and strategies that schools need to provide to ensure professional experience programs adequately prepare preservice teachers.

Five comments specifically identified relationships with universities as an integral component of school frameworks and strategies, and key features that were identified aligned with commentary provided in the Interviews. Specifically, the respondents identified the importance of two-way communication, knowledge about university curricula and priorities, and the allocation of specific personnel to liaise with universities. Commentary included:

Meetings/or opportunities for easy and clear feedback to institutions regarding experience and content in training courses (New Scheme Teacher, Survey 1, 7.7-43)

There is little communication between the universities and the schools. There could be more communication regarding how training is carried out, what is the sequence that they are taught in at university, what are the priorities etc. (Executive, Survey 2, 7.7-56)

Schools need a coordinator appointed from within the executive ... Ideally, this person should have more contact with the university. (HAT (or equivalent), Survey 2, 7.7-56)

Having a person such as the HAT to liaise with the Universities and co-ordinate the pracs is also beneficial as it takes a lot of responsibility off classroom teachers who may not have the time to do this efficiently. (HAT (or Equivalent), Survey 2, 7.7-56)

Interview commentary provided more detailed information. Principals, HATs (or equivalent), other executive members and some teachers provided commentary concerning relationships between schools and universities in the provision of professional experience for preservice teachers. Principals, HATs (or equivalent) and other executive members provided commentary on both formal and informal relationships. Formal relationships were often reported to involve the design, development and delivery of structured programs. The programs that were enumerated differed considerably; they included:

- collaboration with universities in the conceptualisation, development and implementation of a program linking preservice teachers with community mentors and providing free accommodation;

- programs for supervising teachers offered by universities;
- observations and micro-teaching programs for preservice teachers in schools that were additional to formal professional experience placements;
- technology-based programs designed and delivered for preservice teachers while they were at university; and
- teachers lecturing and tutoring preservice teachers while they were at university.

The selected quotes below illustrate the range of constructive, formal, structured programs that were reported to result in positive outcomes for preservice teachers, universities and supervisors, respectively.

If you're talking about partnerships with [university name deleted], we did part of the Digital Learning Project to capture best practice through multimedia and undertaking negotiations, where some of our teachers were filmed, which was then used by [university name deleted] for their professional learning materials that demonstrated quality, methodology and pedagogy, OK. We did have some shared professional learning days, between the University and ourselves and we did have one of the Doctors from [university name deleted] come out and look at 21st Century Literacy and we did have some spoke schools here on that day too. (Principal, SC.14, Turn 152)

[The HAT (or equivalent)] is trying [his/her] hardest to make the actual teaching degree at Universities more effective, so by doing that we take on a lot more prac students so that we can influence their learning a bit more, which will then take the information back to the Universities, and hopefully enhance the product itself, the program itself there. (Early Career Teacher, SC.7, Turn 78)

[The university] provided ... a full day on mentoring graduate teachers, so it was excellent. The teachers were provided with a real theoretical and practical knowledge of how best to support the students coming through, so that was really valuable for us. (HAT (or Equivalent), SC.16, Turn 158)

Dialogue, shared understandings and expectations, university responsiveness, reciprocity of time and effort, and mutual benefits were also identified as important features within and/or in addition to structured programs. Numerous examples of formal and informal dialogue were articulated in the commentary, e.g., an executive member in one school reported formalised dialogue through the inclusion of two university representatives on an advisory board. Such dialogue facilitates shared understandings and expectations. University responsiveness was an aspect that was identified for improvement, as illustrated by the following quote.

getting support and understanding from the universities has been difficult. ... Very difficult. We've been on the phone you know saying, "Look you've really got to come out and look at this because we think there's a problem" and the reply hasn't always been forthcoming. (Executive, SC.19, Turns 217 & 219)

Reciprocity was repeatedly identified as an important issue that had the capacity to lead to the termination of a relationship if it was not met. Although the quotes above concerning formal, structured programs illustrate productive outcomes for a range of stakeholders, there were some reports of asymmetrical relationships, e.g., "[Universities] *take, take, take, take, take. Yeah*" (HAT (or Equivalent), SC.14, Turn 376).

Some interviewees offered unsolicited evaluations of school-university relationships and these were overwhelmingly positive across roles, e.g.,

Um, and of course working with the universities. Um, oh that was very successful I thought. ... Um, and the universities, that's, that was a very, extremely positive good step. ... Yeah, it was great. Fantastic. (Executive, SC.8, Turns 28, 66 & 144)

The relationship with the Universities has been very positive (HAT (or Equivalent), SC.22, Turn 70)

So I personally feel like we've got a good relationship with the Universities. (Early Career Teacher, SC.7, Turn 78)

10.3.3 Summary for Evaluation Question 6(b)

The interview corpus was the main source from which insights were gained in relation to Evaluation Question 6(b), that is, factors and qualities that constitute effective relationships between schools, training institutions and employers in the development and delivery of high quality professional experience for preservice teachers. The interviewees, however, articulated factors and qualities pertaining to relationships with universities only when discussing the delivery of professional experience for preservice teachers.

Principals, HATs (or equivalent) and other executive members provided commentary on both formal and informal relationships. Formal relationships often involved the design, development and delivery of structured programs. The nature of the programs differed considerably, but professional learning for supervising teachers, teacher educators and/or preservice teachers was a common feature. Dialogue, shared understandings and expectations, university responsiveness and reciprocity/mutual benefits were also identified as important features within and/or in addition to structured programs. These findings aligned with the features identified in open response question 7.8 in Surveys 1 and 2, which encompassed the importance of two-way communication, knowledge about university curricula and priorities, and the allocation of specific personnel to liaise with universities.

10.4 Overall Summary for Evaluation Question 6, 6a and 6b

Summary for Evaluation Question 6

- From a cost benefit perspective, C4Es provided a professionally rich context to improve the quality of the professional experience.
- A range of costs were identified for all stakeholders.
- In the case of C4E the opportunity costs were identified for all stakeholders. (Opportunity costs are the benefit, profit, or value of something that must be given up to acquire or achieve something else.)
- Examples included opportunity costs, such as, reputations, workload, and student learning and financial costs, such as, providing accommodation and other resources for preservice teachers.

Summary for Evaluation Question 6a

- Within the constraints of guidelines provided by the *Accreditation of Initial Teacher Education Programs in Australia – Standards and Procedures April 2011* (AITSL, 2001), variations in the delivery of effective professional experience arise from:
 - the timeframe, scheduling and structures established by universities for the conduct of the professional experience;
 - the support initiatives established by school sector authorities;

- variation in aspects of schools' delivery of professional experience as a consequence of the specific contextual environments in which placements occur; and
- The evidence demonstrated differences in the nature of the feedback provided to preservice teachers across sectors.

Summary for Evaluation Question 6b

- Generally, partnerships between schools, universities and employers are focused on and seek to build upon existing relationships that support the delivery of professional experience.
- Dialogue, the development of shared understandings, university responsiveness and reciprocity are characteristic of effective relationships.
- Diverse professional learning programs for supervising teachers, teacher educators and/or preservice teachers were associated with effective relationships.

11 Evaluation Question 7 – Additional Areas of Interest Theme

11.1 Introduction

This Chapter reports on the site visit interview data, the data from Surveys 1 and 2 and their qualitative summaries, and examines themes that emerged from evaluations of the ITQ NP initiative in relation to:

Evaluation Question 7: What are the similarities and differences across settings with respect to:

- a) the importance of contextual factors in the impact of the three initiatives [C4Es, the HAT role and the Paraprofessional role];
- b) the preparation of higher quality teacher education graduates who are better equipped to teach in NSW challenging schools, such as those that are remote or which have high Aboriginal enrolments;
- c) the needs of new teacher education graduates for successful teaching in challenging schools;
- d) the particular training needs of teachers in schools with high Aboriginal enrolments;
- e) the factors in their training that lead to higher retention of high quality teachers in challenging schools;
- f) the factors in the professional experience that contribute to the attraction and retention of high quality mathematics and science teachers;
- g) the factors affecting sustainability of the initiatives;
- h) the cost effectiveness of the three initiatives; and
- i) models and strategies adopted within C4Es, involving HATs (or equivalent) and paraprofessionals, that can be generalised across contexts?

11.2 Evaluation Question 7(a): What are the similarities and differences across settings with respect to the importance of contextual factors in the impact of the three initiatives?

11.2.1 Introduction to Evaluation Question 7(a)

The data make reference to the rate of school improvement, and how establishment criteria for schools implementing ITQ NP initiatives could substantially impact on an improvement agenda. The time frame required to consolidate effective working relationships is a key consideration raised in the following extract.

I know some of the Centres for Excellence got to choose their schools that they worked with, but ours were given. Like, we were told, "These are your spoke schools". I think because we're in Tranche One, yeah, and so they're quite, very like disparate from us, you know, like very totally different context. So, but I think we were able to, sort of, in the third year, we'd built enough of a rapport and, you know, we could, sort, of share our resources. (HAT (or equivalent), SC.16, Turn 70)

Three major contextual factors were identified from the site visit interviews and these are discussed separately in the following sub-sections.

11.2.1.1 Degree of involvement of school in nomination for NP funding

This contextual factor appears to have affected the speed with which school administrators both selected projects and were able to gain the commitment and involvement of teaching staff. Where there was little school involvement in the application process, staff commitment to and active involvement in the ITQ NP funded projects was much slower.

Further, where personnel in spoke schools considered that they had little or minimal ownership of planning, collaborative work amongst the C4E and spoke schools was either non-existent or at best mixed. The evidence indicates that most successful projects were those that were well thought through prior to the application, where all contributing parties participated in the identification and development of the project/s.

The interview commentary indicated that the way in which a school became involved the ITQ NP initiative influenced the levels and speed of engagement of its staff and/or spoke schools in the associated projects. The commentary indicated that differential involvement occurred in the following ways.

- Schools were not involved in the initial application.
- Schools were involved in the application but not involved in the selection and allocation of spoke schools;
- Schools were fully involved with partner schools in the application process, selection and allocation of spoke schools and formulation and projects.
- Personnel involved in the initial application and formulation of the associated projects remained at the school for the duration of the projects.

One of the key Elements to emerge from the Survey 1 data was the number of respondents (85.7%) who indicated that they were now part of a learning network. This matches the interview data from the site visits, although a high proportion of experienced teachers from spoke schools indicated that their schools were not participating in any learning networks at the time of the survey. This finding is consistent with the site-interview commentary, which indicated mixed involvement in that NP initiative of spoke schools that had little or no choice concerning their allocation to a C4E cluster or the projects in which they would be required to participate.

Further, a sense of 'shared vision or priorities' was reported to be an important factor in the success of some of the learning networks and developing ownership amongst stakeholders. Specifically, the commentary indicated the importance of developing a shared vision through collaborative planning rather than responding to top-down directions. Developing ownership by stakeholders was attributed to activities such as:

- developing early career teachers;
- supporting the attainment of higher levels of accreditation;
- improving the quality of teaching through peer observation and other collegial activities aimed at developing shared teaching practice; and
- undertaking specific curriculum priorities, such as, Literacy, Numeracy, English, Human Science and its Environment (HSIE), Visual Arts.

Survey 2 responses indicated that a commitment to on-going collaboration between the C4E and spoke schools was one of the critical factors to overall NP project success, although it was reported that this came at a cost in terms of organisation and time.

11.2.2 Commitment and continuity of school leadership to ITQ NP projects

As suggested in 11.2.1.1 above, success of ITQ NP projects also seems to have been dependent on the degree to which school leadership was actually involved in the application for their own school project funding. Further, where schools had a change of Principal, participants reported that the incoming Principal did not necessarily display the same commitment to the original project.

This suggests that there may be a degree of ‘fragility’ in relation to the loss of key personnel during the rollout of this particular type of school initiative model (see Lankshear, Bigum, et al., 1997). Continuity of Principal support for the networks was identified as being important to successful implementation of initiatives and, conversely, changes of Principal were presented as a potential threat to the support for, ongoing momentum and success of initiatives. This idea was described succinctly by one of the regional teachers:

[Principal name deleted] is still here, and that’s the other thing, once you lose people like [him/her], then you might lose that flow-on effect. There definitely needs to be that person in a school with that vision or to carry it on. (Teacher, SC.20, Turn 56)

Survey 1 and site visit responses to questions regarding networking and collaboration support this conclusion. A number of respondents specified that the key issues were the commitment and leadership of the cluster Principals to ensure the initiatives were developed and implemented.

In relation to this issue, Survey 2 respondents commented on general staff turnover as also impacting on the continued functioning of both within school networks (33.6%) and across school networks (41.1%) emanating from NP project funding.

11.2.2.1 Suitability of HAT (or equivalent) appointment

Commentary from the site-visit interviews indicated that successful appointments of HATs (or equivalent), was associated with increased success of ITQ NP projects. The commentary also indicated that the appointment of a HAT (or equivalent) to a school or cluster of schools instigated the establishment of some of the learning networks both within hub schools and across the hub and spoke models.

While the Survey 2 responses suggested that HAT (or equivalent) appointments had resulted in both extended and/or improved support for teachers and quality of teaching within the schools, some responses made reference to consequences where there was misalignment of a HAT’s (or equivalent) frame of professional reference and the professional needs of staff:

The school had two HATs and both had a negative effect on the school climate. They were more interested in making the staff of the school feel that everything they were doing was wrong and filled with a sense of self-importance. It wasn’t until the school changed strategies and employed a DP focusing on literacy that things improved. (Executive member, Survey 2, Comment 5.5-2)

11.2.3 Summary for Evaluation Question 7(a)

Comparing some of the reported similarities and differences across school settings and roles revealed a number of aspects about the ways ITQ NP funding was utilised at both the sector and the individual school levels. Key contextual factors tended to cluster around the following:

1. The involvement of the school in its own nomination for funding. This aspect appears to have affected the speed with which school administrators both selected projects and

were able to involve the teaching staff. Where there was reported to be little school involvement in the application process, obtaining staff commitment to the funded projects was described as a lengthy undertaking. Further, where the engagement of partner schools was reported to be based on a directive, collaborative work within the network of schools was described as either non-existent or at best mixed. The commentary indicated that the most successful projects were those that were well thought through prior to the application, and in which all contributing parties participated in the identification and development of the project/s.

2. The commitment and continuity of school leadership to the projects. The commentary indicates that this aspect was dependent upon the degree to which school personnel were involved in the application for funding. Where schools had a change of principal, it was reported that the incoming principal did not necessarily display the same commitment to the original project. This suggests there may be a degree of 'fragility' in relation to the relocation of key personnel during the rollout of this particular funding model.
3. The suitability of the HAT (or equivalent) appointment. A clear pattern in the commentary indicates that ITQ NP projects were gauged to be successful when the appointment of a HAT (or equivalent) was also gauged to be successful.

11.3 Evaluation Question 7(b)/(d)²⁴: What are the similarities and differences across settings with respect to: (b) the preparation of higher quality teacher education graduates who are better equipped to teach in NSW challenging schools, such as those that are remote or which have high Aboriginal enrolments; and (d) the particular training needs of teachers in schools with high Aboriginal enrolments?

11.3.1 Introduction for Evaluation Question 7(b)/(d)

The following extracts encapsulate an important link that needs to be achieved in practice between experienced advice and desirable support when addressing the needs of new graduates. The second extract also highlights the pivotal HAT (or equivalent) role in transforming informed advice into enhanced teacher practice, whilst the third extract raises the notion that shared responsibility, i.e., school culture, is fundamental to addressing contextual similarities and/or differences.

"The teachers who have the least problems are the best prepared" is the first bit of advice I give. And the second bit of advice is "interesting stuff keeps kids out of trouble". You know, that's the start of it. (Principal, SC.11, Turn 130)

One of the big things you miss when you go from being a Prac Teacher to a fulltime, you know, paid, real Teacher, is not having that support from your, you know, when you're doing your prac teaching you've got your Advisor and your Supervisors to give you the feedback. So, having ... the HAT coming into the classroom and making suggestions and, yeah, just basically helping out, was really valuable, helped me become more confident, gave me new ideas and, yeah, it was great. (Early Career Teacher, SC.5, Turn 6)

I've got to say in terms of our Aboriginal students and their needs and addressing their needs and the Aboriginal education documents and everything that goes along with that, it is very much, as it should be in every school, an accepted part of the culture of the school. (Executive, SC.12, Turn 250)

²⁴ Additional themes (b) and (d) were merged into the one response as both related to Aboriginal and Torres Strait Islander education and interviewees' responses invariably conflated the themes.

11.3.2 Findings for Evaluation Question 7(b)/(d)

The site visit commentary indicated that interviewees found it difficult to differentiate between additional themes (b) and (d), so the decision was made to collapse them. Further, few of the school sites visited had large numbers of students identifying as Aboriginal and Torres Strait Islander, although interviewees suggested Aboriginal enrolments were on the increase, particularly where the numbers have warranted the appointment of Aboriginal Liaison Officers²⁵ (ALOs) who then function as “*role models for Indigenous students*” (SC.21, Teacher; SC.12, Executive). Comments tended towards generalisations rather than specifically addressing the issue of the training needs of teachers in schools with high Aboriginal enrolments. Consequently, while a number of inferences are drawn, we are mindful that the data set was small.

In the site interviews, a high percentage of school personnel indicated that Aboriginal and Torres Strait Islander education was increasingly being embedded in their broader school programs/ethos. It was becoming the overall responsibility of all teaching staff rather than just the leadership teams or the ALOs. While a proliferation of Aboriginal programs were reported to exist for both school students and teachers, the responses from these interviewees was that Aboriginal education should also have greater coverage in preservice teacher education courses.

Participants mentioned the opportunities presented for growth in understanding about Aboriginal and Torres Strait Islander education via the C4E and spoke model, which has led to the development of learning networks both within and across schools. A metropolitan-based HAT (or equivalent) who worked as mentor partner for a rural school over the past two years commented that conditions in the mentor/mentee schools were very different in terms of resources and knowledge about the curriculum, particularly at the beginning of the partnership, but that the sharing of information around Aboriginal and Torres Strait Islander schooling had been particularly enlightening for the city school as the rural school has a growing reputation around its Aboriginal education capacity.

Relatively few site visit interviewees commented on what teachers need to know about teaching in schools that are remote or that have high numbers of Aboriginal students. Principals generally expressed gratitude for funding that allowed them to expand or intensify programs they were already doing prior to NP funding, but commentary concerning what staff should/could know about Aboriginal and Torres Strait Islanders education was sparse. The sparseness of such commentary, however, needs to be read against the backdrop of recent preservice teacher course accreditation requirements. Preservice teacher course accreditation requirements in NSW have mandated that Aboriginal Education be progressively phased into initial teacher education courses since 2008 (NSWIT, 2007) and national preservice teacher course accreditation requirements have mandated that Aboriginal and Torres Strait Islander Education be progressively phased into initial teacher education courses since 2011 (AITSL, 2011a). Thus, graduate teachers will increasingly possess greater knowledge of Aboriginal and Torres Strait Islander education in the future.

11.3.3 Summary for Evaluation Question 7(b)/(d)

Respondents’ commentary demonstrated a considerable degree of agreement about many of the considerations deemed to be important for meeting the needs of new teacher education graduates in order to ensure success in their teaching appointments. In addition, respondents suggested that very little difference exists between preparing teachers for metropolitan school

²⁵ Aboriginal Liaison Officer (ALO), Aboriginal Education Officer (AEO) and Aboriginal Education Worker (AEW) are terms used to refer to the same role within schools.

appointments and those in rural and/or remote locations. Respondents' commentary espoused the need for graduate teachers to receive:

- greater and earlier exposure to school classroom contexts than currently experienced by the majority of preservice teachers;
- a mentoring process from that supported graduate teachers in the transition from university to school context; and
- assistance for preservice teachers to assemble resources appropriate to their teaching, prior to their first appointment.

There was relatively little commentary concerning what teachers need to know about teaching in schools that are remote and/or that have high numbers of Aboriginal students. Principals generally expressed appreciation of funding that allowed them to expand or intensify programs established prior to ITQ NP funding, but little commentary addressed what the teachers should/could know. The general view expressed in the commentary was that if teachers had more preservice knowledge of Aboriginal and Torres Strait Islander cultural and learning differences, they would be more able to implement the sorts of programs many schools have initiated and to embed cultural sensitivities in their own teaching practices. It should be acknowledged, however, that preservice teachers will be graduating with increased knowledge of Aboriginal and Torres Strait Islander cultural and learning differences following mandatory accreditation requirements to include study of Aboriginal education (NSWIT 2007) and Aboriginal and Torres Strait Islander education (AITSL, 2011a) in all preservice teacher education programs.

11.4 Evaluation Question 7(c): What are the similarities and differences across settings with respect to the needs of new teacher education graduates for successful teaching in challenging schools?

11.4.1 Introduction to Evaluation Question 7(c)

The following extracts have been selected to reflect important considerations related to the needs of new teacher education graduates. The comments make reference to both extrinsic and intrinsic considerations, namely, preparation for entering the teaching profession, the nature of support when transitioning into the teaching profession, relevant innate skills, and contextual awareness.

... A certain personality type works best, who can build relationships. Some of our most successful teachers were students in this area... (WS.6, Principal, Turn 108)

When we see them come in here, you know my view on them is that they're underprepared. Some Universities do it better than others, like the schools. But overall I believe that we could be doing a lot better in how we actually structure the program. (SC.7, HAT (or equivalent), Turn 141)

One of the big things you miss when you go from being a Prac Teacher to a fulltime, you know, paid, real Teacher, is not having that support from your, you know, when you're doing your prac teaching you've got your Advisor and your Supervisors to give you the feedback. So, having ... the HAT coming into the classroom and making suggestions and yeah, just basically helping out, was really valuable, helped me become more confident, gave me new ideas and yeah, it was great. (SC.5, Early Career Teacher, Turn 6)

11.4.2 Findings for Evaluation Question 7(c)

Professional Experience is dealt with in a different section of this report, but it should be noted that school site visit interviewees did not always clearly differentiate between graduate teachers

and preservice teachers in their responses, often appearing to use the terms/concepts interchangeably. Further, the needs of new teachers and the preparation of higher quality graduates were not easily distinguishable in the transcripts. Nevertheless, the suggestions offered by a range of interviewees might serve as useful discussion starters for teacher education faculties, policy makers and school personnel about improving the professional experiences of NSW preservice teachers for all schools, challenging or otherwise.

In addressing the question of perceived needs of new teacher education graduates for teaching in challenging schools, site visit interviewees expressed the view that all new teacher education graduates would benefit from the advice that they offered rather than it being specific to those who might be appointed to challenging schools, remote schools or schools with high Aboriginal enrolments. In general terms, the commentary of the interviewees indicated that very little difference in preparation was required.

School personnel frequently articulated the view that preservice teachers spend far too little time in schools during their teacher education programs. Principals, HATs (or equivalent) and executives alike mentioned the need for earlier and more extensive professional experience placements to facilitate preservice teachers' understanding of school patterns and roles by the time they graduate. Recommendations ranged from internship placements along the lines of the medical model to more frequent attendance at schools under the tutelage of an experienced supervising teacher. Participants also specified the following as needs for teacher graduates, the first two of which align with *Great Teaching, Inspired Learning: A Blueprint for Action* (NSW DEC, 2013):

- greater literacy/numeracy competency;
- greater understanding of and expertise in classroom management skills;
- more in-depth understanding of legal responsibilities for teachers of students with complex parenting and family contexts;
- increased knowledge and capacity to teach students with diverse needs; and
- more competence in differentiated teaching and assessment.

Survey 2 respondents commented on the need for preservice teachers to be exposed to a wide range of classroom, pedagogical and management experiences. One principal expressed the following in relation to time in schools:

I believe that placement in schools must be for a longer period. Teaching is about relationships; and four weeks, or a day a week is not long enough to develop quality relationships with both staff and students. Fourth year placements must be at least one if not two terms. This length of time will enable students to better appreciate the term cycle of schools and give a better indication of the responsibilities, duties and requirements to be successful. The better the relationship with their students the better the practicum experience. (Principal, Survey 2, Comment 7.7-79)

Respondents indicated that preservice teachers should be exposed to:

- participation in staff meeting/team meetings;
- knowledge about effective assessment reflected in class planning, differentiation of lessons and specific student feedback;
- the wider school experience, including playground duty, assemblies, roll call, meetings;
- a range of classroom management strategies, and assessment strategies; and
- collaborative work practices.

In general, principals, members of school executives, and HATs (or equivalent) focused on teacher education preparation. They tended to list considerations, such as, greater time in

schools, increased preparation for teaching children with diverse needs, competence in catering for student differentiation and increased roles in mentor programs as the key ingredients in preparing graduates for successful teaching in challenging schools.

HATs (or equivalent, along with teachers, expressed an additional perspective related to individual and network support mechanisms for Early Career Teachers. This perspective is reflected in the view of one beginning teacher who spoke of the sense of loss she felt when she moved from the supportive environment of having a Professional Experience officer present during her university classroom exposure to suddenly being on her own as a new school teacher employee.

Teachers articulated a set of considerations around preparing graduates for teaching in challenging schools as:

- the isolation experienced by graduate teachers;
- the importance of providing mentors;
- the need to develop resource networks; and
- the preference for and benefits of early exposure to school environments in teacher education programs.

The one hundred and ten survey respondents (32 Executives, 38 Principals, 21 HATs (or equivalent), 5 Leaders of Pedagogy, and 14 Teachers) who commented about feedback to preservice teachers listed professional dispositions and skills as being important for teaching:

- flexibility and openness to change;
- commitment to the task of teaching;
- planning and preparation of lessons;
- capacity to locate a mentor and adapt to his/her advice; and
- building respect, empathy and joy in the classroom.

This list compares favourably with the preliminary findings reported in an earlier Progress Report for the evaluation (Progress Report, Number 2, p49) where the recommended set of professional dispositions and skills for preservice teachers and, by extension, new graduates was identified as including:

- a love of working with students;
- critical awareness;
- open-mindedness;
- flexibility;
- creativity;
- being reflective;
- being energetic;
- having a positive outlook; and
- being well-organised.

The single common thread across both survey responses and site interviews was that such preparation was suited to all teacher graduates, not just those appointed to challenging schools. The needs of new graduates were presented as being similar across settings.

11.4.3 Summary for Evaluation Question 7(c)

There was general agreement about three areas deemed to be important considerations in meeting the needs of new teacher education graduates in order to ensure success in their teaching appointments, namely:

- preparation for entering the teaching profession (extrinsic consideration),
- the nature of support when transitioning into the teaching profession (extrinsic consideration), and
- innate skills and contextual awareness (intrinsic considerations).

Attention focused on a greater and earlier exposure to school classroom contexts than currently experienced by the majority of preservice teachers, the importance of some sort of mentoring continuity role from university to school context and the need to assist young teachers to assemble resources appropriate to their teaching, prior to their first appointment. The role of mentoring during transition into the teaching profession provides one option for ensuring that the innate skills and dispositions for teaching are consolidated.

11.4.4 Evaluation Question 7(e) What are the similarities and differences across settings with respect to the factors in their²⁶ training that lead to higher retention of high quality teachers in challenging schools?

11.4.5 Introduction to Evaluation Question 7(e)

The following extract addresses training needs at the school level and provides one approach that incorporates four important elements:

- (i) a sense of perspective;
- (ii) planning;
- (iii) pace; and
- (iv) an appropriate mentor-mentee relationship.

I think it's, in order to retain them it's that not burning them out, so really trying to balance change with what's possible, and with their own work/life balance. I think that was tricky. 'Cause I think when we did some of the planning, they were, we, I sort of said, "Well where would you like to be in four years' time? What would you like?" If we were talking, about what science would be like in four years' time, what would it look like? And they came up with all of these ideas. And then we talked about what we were going to put in place over that time to try and bring this about. And initially they were saying "Well no, let's do it next year." And I ended up being the one to pull them back and say: "No, really, you've got to teach, you've got to report, you've got to do all of these things, so let's look at what's possible." So it was really looking at putting small steps in place so that they could do that and embed it, and then move on to the next thing. (HAT (or equivalent), SC.21, Turn 177)

11.4.6 Findings for Evaluation Question 7(e)

Approximately thirty school site interviewees responded to the issue of retaining teachers, but few focused on teacher education/training, preferring to generalise about keeping teachers in schools whether they be high quality teachers in challenging schools or otherwise. Predictable factors raised included:

- the incredibly busy life that a teacher leads;
- the growing amount of accountability attached to the role;
- the amount of support available in the school;
- the critical nature of the availability of sound and personalised mentorship; and
- the need for teachers to broaden their networks both within the school and also across schools and sectors.

²⁶ 'Their' is a reference to teachers.

A number of themes appeared to be identified and repeated across the roles as to why teachers would choose to stay in or leave the profession, including:

- the favourable work conditions of teaching and the rewarding nature of teaching itself, including 'making a difference' as a reason for staying;
- the need for greater incentives for teachers, such as financial compensation, particularly where they are rurally or remotely located;
- the level of support available in the school, particularly by way of mentorship, specifically via the HAT (or equivalent) or some other experienced colleague;
- the opportunities for teachers to become experts in particular school curriculum operations and to share that expertise in leadership roles other than school administrative positions; and
- the need for preservice teachers to spend more time in school classrooms/environments in order to better prepare them for life as a teacher in a contemporary school setting.

Overwhelming, contextual issues were raised in the commentary rather than in-service or pre-service training.

11.4.7 Summary for Evaluation Question 7(e)

Comparisons were difficult to make between locations as the issues of teacher retention appeared to be either non-existent in schools or a major consideration. There did not seem to be much middle ground, and it was clear that interviewees from schools in regional or remote locations had far more to say about and to offer solutions concerning teacher retention than did their metropolitan counterparts. Of those who offered any extended commentary, similarities were more prevalent than differences in ways teacher retention might be achieved. A similar view emerged from the commentary, which can be summarised as the notion that quality support and mentoring of early career teachers provide environments that lead to higher retention of high quality teachers in challenging schools.

11.5 Evaluation Question 7(f): What are the similarities and differences across settings with respect to the factors in the professional experience that contribute to the attraction and retention of high quality mathematics and science teachers?

11.5.1 Introduction to Evaluation Question 7(f)

The following two extracts highlight the notion of access, as both a problem and a solution, in the attraction and retention of teachers. The problem, mainly experienced by regional schools is one of limited access to suitably qualified teachers due in many instances to the perceived professional isolation in these contexts. Access to a learning environment, i.e., online or virtual faculties, was presented as a means to overcome professional isolation.

I know just recently we were advertising for a Maths-Science person and we had this young guy apply, and I nearly jumped through the phone to offer him the job and he was sounding fantastic but you know he got an inner city job, much more appealing. So it's attracting them ... (Principal, SC.21, Turn 220)

For a beginning teacher coming to a school ... and being the only science teacher and having to be responsible for the entire programming and having no other faculty members around them, all of a sudden was in a unit of work that was able to see assignments that were being submitted by kids in all the schools and then we were doing peer marking between the teachers that was all set up in an online environment. So it automatically made a teacher here, a beginning teacher or any kind of teacher, have an instant six other

teachers around them supporting them with programming and assessment tasks and peer marking and those kind of things and we ... never expected the, real increase in student growth particularly from some of, the lower kids in the class. (HAT (or equivalent), SC.20, Turn 20)

11.5.2 Findings for Evaluation Question 7(f)

Few interviewees spoke about preservice education contributing to teacher retention; enabling the inference that it was the responsibility of the school itself to devise incentives to make teaching staff want to stay on in that school.

The school site interview commentary indicated that private schools in metropolitan areas did not face difficulties attracting or retaining mathematics or science teachers. Indeed, most satisfaction was expressed when beginning mathematics or science teachers had been appointed:

But we haven't had difficulties in terms of retaining maths and science teachers, no. We've got very experienced, I mean, in fact, one of the delights this year in our maths department is that we have two young maths teachers who are just wonderful. (Principal, SC.2, Turn 135)

In rural or remote schools, however, the story was quite different. Attracting staff in the first instance was presented as a more pressing issue than retention.

Well, my problem is not retaining them because they stay [laughs]. The problem in getting them is that we are a long distance out. And there's not the, and we're actually not that far out really, if you think [city name deleted], it's an hour, but people seem to think that that's a long time. (Principal, SC.21, Turn 218)

The interview commentary also indicated that some secondary schools also had significant numbers of primary trained teachers who were members of their mathematics/science faculties. Initiatives that were reported to promote retention included increasing the knowledge and confidence of primary trained teachers teaching science and mathematics in secondary schools, the C4E funded science and mathematics Virtual Faculties in rural/remote NSW being a case in point:

OK, before the C4E, it was not seen by the average teacher at [school name deleted] high school to be their responsibility, if the kids in [school name deleted] didn't have a teacher who knew very much about teaching the High[er] School Certificate and during the C4E that culture of reaching out and mentoring less experienced people, sharing resources, having them in for workshops, became quite widespread. So, not just within the first two to start, which was science and mathematics, but beyond that into geography, history and music and since, most of those connections have remained ... Because I know the Maths Virtual Faculty, there's three or four of them; they're not qualified maths teachers. They were Primary trained teachers taking the maths syllabus, or they were a first year out taking every bit of maths in the whole school and they arrived and there's nothing, they don't know anything, so yeah, the Virtual Faculties saved their lives, they tell me, so, that was our focus in all Secondary Schools across our [hub and spoke school] group mainly, the Group was what we targeted and our experienced teachers provided the mentoring, in most cases, for the less experienced teachers. (Principal, SC.9, Turns 27 & 35)

Providing opportunities for teachers to take on leadership roles within their own schools was also presented as a strategy to retain high quality teachers by reducing the necessity to pursue promotional pathways elsewhere. Principals advanced this as one of the major advantages of the C4E initiatives in maintaining stable teaching forces:

I think that's a big change from, in the past we've run leadership sort of workshops and you'd get four or five people who are interested, but I think that seeing themselves as having leadership potential, that that depth has gone right through the school and a lot of people who are quite experienced participated in that, even though in the past they might have said "I don't want to leave [school name deleted], I don't want to go anywhere else, so I'm not going to be a leader." They saw the possibility for their leadership skills to be utilised while remaining a classroom teacher through processes like the C4E. (Principal, SC.9, Turn 45)

11.5.3 Summary for Evaluation Question 7(f)

Issues raised in relation to the retention of mathematics and science teachers related mostly to rural and remote school contexts. Attraction to these schools in the first place was presented as the key issue; once teachers established themselves in these schools and communities, the commentary suggested that it would be easier to retain new teachers.

It was reported that science teachers were difficult to secure, however, the attraction of mathematics teachers was reported to be an even more pressing need. Whilst the respondents outlined a number of initiatives implemented by schools and/or HATs (or equivalent) for retaining these teachers once appointed, less clarity was expressed about reversing the problem of attracting them to the schools in the first place.

HATs (or equivalent) expanded the commentary on the retention of science and mathematics teachers provided by Principals. School support, particularly in extending opportunities for demonstrating expertise and leadership potential, mentorship and encouragement to become involved in initiatives across KLAs and across multiple school contexts were strategies that were reported to enhance the retention of science and mathematics teachers,

The teacher perspective concerning retention echoed the commentary of HATs (or equivalent). School support – and in particular the mentorship roles played by HATs (or equivalent) across a range of schools, and the advantages of collegial and collaborative projects were the major themes in teachers' commentary linked to retention of mathematics and science teachers.

11.6 Evaluation Question 7(g): What are the similarities and differences across settings with respect to the factors affecting sustainability of the initiatives?

11.6.1 Introduction to Evaluation Question 7(g)

The following extract encapsulates some key features presented concerning sustainability, namely, a whole-school plan, a management plan, identified expertise from within the school, commitment, an evaluation plan, and, above all, someone to coordinate the school improvement agenda and bring disparate elements together. A recurring theme throughout the commentary is the notion of collaboration and someone to 'drive' initiatives and, in this extract, the HAT (or equivalent) is represented as a resource that can be linked to a school's core business conscience, providing the necessary sustainable 'drive'.

But instead this year we actually broke it into, well this is our school management plan, you need to all become teams and you need to help drive what is going to, so we tried it a different way this year with [name deleted], sort of, obviously, and myself, but the execs were very interested in doing it that way as well ... But it's been great because we had a couple of classroom teachers, one of them only works two days a week but [s/he]'s one of those real goers, put up their hands and say, "I want to manage that team." And the other

... [teacher has] *only been teaching for a couple of years and said, “Yeah, well I’ll manage that team.” So they’re just in the process now of evaluating how they’ve gone and to meet with their teams and putting together proposed budgets for next year to continue any programs and things. But a lot of that has come through the HAT, sort of, saying we have all these little separate things happening but none of it pulls together. We need to pull it together and try some different things. So it’ll be interesting what feedback we get when we really have a look at that.* (HAT (or equivalent), SC.11, Turn 133)

11.6.2 Findings for Evaluation Question 7(g)

Interview commentary collected at most of the school sites visited addressed the sustainability of the projects and initiatives funded through the ITQ NP funding. Commentary from eighteen school principals indicated that sustainability was an issue that had been considered from the outset and that it was a factor against which success could be measured. Principals argued that maintaining the roles performed by the HATs (or equivalent) beyond ITQ NP funding was an important indicator of success.

Funding loss was presented as unfortunate, resulting in predictable declines in the scope and number of C4E initiatives that could be maintained into the immediate future. However, participants indicated attentiveness to and preparedness for the maintenance of NP initiatives where possible:

... our focus was always on sustainability, and making sure that we had programs that could still continue once the HATs finished, because we always knew it was only a two-year deal. (Principal, SC.8, Turn 8)

School principals candidly expressed they would struggle to maintain many of their initiatives when both funding and the roles of the HATs (or equivalent) ceased, but they emphasised that gaps were being covered via a number of different strategies, including:

- stretching existing budgets or a substitution (or at the very least, a subsidisation) of funding from other projects to continue C4E initiatives that were perceived to be crucial to the core business of the school;
- restructuring executive roles to incorporate aspects of the HAT role;
- designating a staff member oversee the maintenance of major projects stemming from the C4E;
- assigning greater responsibility to teachers in the continuation of the initiatives following increases in teacher capacity as an attributable outcome of their involvement in C4E initiatives; and
- incorporating C4E/HAT (Equivalent) plans into the overall school plan.

The subject of sustainability was present in both survey rounds. Survey 1 respondents cited sustainability as being a critical issue in relation to the ongoing development of collaborative networks once the NP funding ceased.

Survey 2 respondents were asked to indicate which strategies continue to support the functioning of networks with other schools; many of these require considerable school resources in order to be sustained. In order, the four strategies most selected by respondents were:

- making the time available (68.9%);
- focusing the network’s activities on professional learning (63.8%);
- ensuring communication and dialogue (55.8%); and
- sharing personnel and undertaking joint activities (55.1%).

Survey 1 respondents also indicated that sustainable improvements in teaching and learning were dependent upon whole-school improvement strategies. As one respondent commented:

It is only with a focused, consistent and whole-school approach that substantial and sustainable change has come. With all staff and students aware of the learning goals and collaboratively working towards them, academic performance is able to be lifted across the school. (HAT (or equivalent), Survey 1, Q. 28)

The areas of improvement identified by the respondents as being most influenced by HATs (or equivalent) were the support for teachers in the school and improvements in the quality of teaching. Many expressed uncertainty and concern regarding the maintenance of these improvements beyond the HAT (or equivalent) role.

Survey 2 respondents stated that the projects that the NP funding enabled them to undertake might in some ways be sustainable through the very nature of the projects' content/focus:

The teaching staff have a much greater understanding of what quality teaching is and what it looks like. They have been trained in the use of effective pedagogy and tools to assist in quality teaching practices. A very positive professional learning culture has been established and enhanced over the course of the ITQ NP, which will contribute to the sustainability of quality teaching practice and therefore, teacher quality, as we move into the future. (Principal, Survey 1, Comment 9.4-23)

School site visit personnel in general, and principals in particular, articulated clear understanding of the relationship between the importance of the C4E projects to their schools and their sustainability. Consequently, varying types of strategies have been put in place across the 22 schools to provide some level of long-term sustainability. The commentary indicated that covering the additional tasks and responsibilities created by the ITQ NP initiatives can be more easily achieved in larger schools in metropolitan areas. Smaller and isolated schools appeared to face much greater challenges to maintain interest and impact.

11.6.3 Summary for Evaluation Question 7(g)

Sustainability is one of the key yardsticks for measuring most change agency projects. The establishment of C4Es under the ITQ NP funding model is no exception as building teacher quality and capacity was at its core. Interviewees articulated a keen awareness of the need for sustainability of the initiatives that were devised in each school. Different school personnel consistently presented different interpretations of sustainability, but there was a high level of agreement across roles concerning how this might be achieved.

Principals proposed a number of strategies to ensure that selected projects in their respective schools would continue. These strategies can be summed up in the following five ways:

- (i) stretching existing budgets or substituting funding from other projects to continue those ITQ NP initiatives now believed to be crucial to the core business of the school;
- (ii) restructuring of the executive roles within the school and redistributing roles;
- (iii) establishing a part-time appointment of someone to oversee the major projects stemming from the ITQ NP funding;
- (iv) embedding initiatives in line with the increased capacity of teachers on staff, who might take on additional leadership responsibilities; and
- (v) incorporating the HAT (or equivalent) plans into the overall school plan.

11.7 Evaluation Question 7h: What are the similarities and differences across settings with respect to the cost effectiveness of the three initiatives?

11.7.1 Introduction to Evaluation question 7(h)

The following extract encapsulates an important consideration related to cost effectiveness, namely the costs associated with not sustaining initiatives.

Unfortunately this model is costing \$200,000 a year ... Next year we go from prawns to devon ... You know, how can we sustain it? Its – the key is what can we do to influence teachers in their classroom to make them a better teacher, that’s where the future lies. If we can get in and do that then we’re highly successful, ‘cause that will mean the children are being taught by a better teacher and the results will be better as a result of that. (Principal, SC.13, Turns 86-90)

11.7.2 Findings for Evaluation Question 7(h)

Amongst the three initiatives C4E, HATs (or equivalent) and paraprofessionals the initiative with the greatest impact on changed practice was the HAT (or equivalent) initiative.

While C4E were the important structural focus of whole school planning for change and for developing collaborative networks within and amongst schools, much of the change was driven by the HAT (or equivalent) role. Further the HAT (or equivalent) facilitated direct support for improvements in teaching through their capacity to model effective practice and to mentor other teachers.

The importance of the HAT (or equivalent) role is seen through the priorities schools have adopted to ensure the sustainability of their initiatives. Their focus has been on finding ways to continue funding of the role or to distribute the responsibilities of the role across other executive staff in the school. Consequently, the HAT (or equivalent) role is the most cost effective in terms of its return on expenditure. Representative comments from principals concerning how the role might be preserved are provided below.

... when the HAT disappears ... the biggest factor in all of this is going to be time. And to be able to get somebody to effectively do that, it’s going to be... well there’ll be... at our... at this school it will happen in either of two ways. It will be that... I mean we’re very lucky we’ve got two non-teaching deputy principals, so one of us will take that on board, or... I would imagine we’d have to have some extra release time for a person off class. So there would be some monetary cost involved in that in terms of buying the time to have that person involved in doing that. Yeah. Time would be the biggest cost I guess, that I would see, to be able to buy the time for... to do the job effectively. Yeah. And to give it what it really does deserve. Because like I said to you before, I see that this has... is hugely important because the students that are coming to us from the universities, these are our future colleagues, so we have to really invest the time into these people if we’re going to continue to build and create a quality profession. (Principal, SC.13, Turns 179-181)

But the beauty for the C for E schools is they’ll have that same input from the expert, then they can come back to our C for E model and say how do we deliver it? Do you want to combine together? But I see the future with empowering local schools in 2015 where if I had the money I would buy a HAT and I would share that cost with four local schools and I would say how about given the financial input you’ve got in, she works one day a week in each of your schools or a term about and we pay for her training at a shared cost and she comes back and delivers that message amongst us. Because the consultancy model is flawed ... With the spoke schools, next year, we don’t have any money. Would you like to

be involved with [school name deleted] again? Look, it's going to cost you your own funds. I guarantee the answer will be, look, yeah, we're quite happy paying for it ourselves. That's the sustainability. (Principal, SC.15, Turns 72 and 92)

One similarity across the two schools is the notion that the particular role being discussed, namely the HAT (or equivalent) role, should be preserved, and that the real cost is in not having a person to fill such a role. The real cost is expressed differently across the two schools. For one school it relates to having someone supporting teachers coming into the profession, and for the second school it relates to the potential for sharing expertise in line with a model of professional learning that has been shown to work in their particular network context. Consequently, the HAT (or equivalent) role is the most cost effective in terms of its return on expenditure.

11.7.3 Summary for Evaluation Question 7(h)

The discussion around cost effectiveness focused on the consequences of not preserving a role/structure. The costs were seen, in part, in terms of reduced opportunities for shared professional learning and support for building a 'quality profession'. Central to maintaining a focus on enhanced professional teaching and learning was the preservation of the HAT (or equivalent) role).

11.8 Evaluation Question 7(i): What are the similarities and differences across settings with respect to models and strategies adopted within C4Es, involving HATs (or equivalent) and Paraprofessionals, that can be generalised across contexts?

11.8.1 Introduction to Evaluation Question 7(i)

A recurring theme throughout survey and site visit commentary was the notion that context determines needs, and needs determine relevant planning and strategies. This theme is encapsulated in the following extract, which acknowledges differences across settings in terms of an initial planning perspective, but which also makes reference to similarity of outcome in the form of a learning community that was established.

I think that the work that we've done over the last two years between all three schools has resulted in some surprising secondary outcomes ... initially, we thought that it was going to be a top-down model that we were the big schools ... we were going to support and work with our 'poor cousins' ... but it hasn't been like that at all and it's been a real professional learning community that's been established. (SC.3, HAT (or equivalent), Turn 18)

11.8.2 Findings for Evaluation Question 7(i)

Strategies adopted by C4E have been addressed in previous sections of this report, and so a response to this question reiterates strategies that were adopted within and across participating schools, and which contributed to the perceived success of activities. It is not suggested that all of these need to be in place for a school to implement an improvement agenda, since a mix of contextual priorities play an important role in determining the scope of any improvement agenda. The strategies included:

- a sustained emphasis on professional learning that is focused on local, contextual issues rather than isolated externally provided activities;
- consensus from all school community stakeholders about initiatives to be undertaken;
- affirmation by the school community of the efforts of 'drivers' of the initiatives;

- a raised level of teaching and learning expectations demonstrated by teachers and students;
- an emphasis on collaboration and teamwork: team discussions; team planning; and/or collaboration at the individual teacher, team and whole-school levels;
- a focus on dialogue and reflection about professional practice;
- a preparedness to share resources, e.g., programming, assessment tasks, feedback strategies, and personnel;
- an emphasis on collaboration at the school and/or network level;
- opportunities for classroom teachers to demonstrate leadership;
- monitoring and evaluation of student improvement through external and internal measures, e.g., NAPLAN, teacher reports, classroom observations, work samples etc.;
- an emphasis on the provision of quality feedback to teachers at all Key (career) Stages, students and the wider school community;
- inclusion of the HAT (or equivalent) as part of the management team to contribute to strategic planning;
- appointment of the HAT (or equivalent) from within the school;
- credibility of the HAT (or equivalent) with school personnel and a rapport that facilitates collaborative professional practice;
- development and consolidation of effective relationships between stakeholders by the HAT (or equivalent);
- availability of the HAT (or equivalent), i.e., does not teach his/her own class; and
- recognition that the HAT (or equivalent) is the quality assurance mechanism/collective conscience of the school's/network's core business.

Whilst the above list encompasses a number of strategies, it is not exhaustive. Nor is it suggested that schools attempt to implement each one, however, there are three underlying elements that schools, at the individual and/or network levels might embrace. These are:

- strong school and network relationships;
- a facilitator with appropriate expertise; and
- a clear teaching and learning improvement agenda at all teacher career stages based on team planning and a collaborative school culture.

Of the three elements listed, the second can be considered as a necessary condition for successful development of the other two, a view that recurred across the survey commentary and site visit interviews. The facilitator referred to was the HAT (or equivalent), and in their commentary about an improvement agenda within and across school teaching and learning environment, HATs (or equivalent) enumerated specific examples of how they perceived their role supported teacher professional learning and the implementation of initiatives. The multi-faceted nature of professional practice within and across schools is, in part, detailed in Table A1 and Table A2 (Appendix A²⁷), which summarise elements that have shaped the priorities for the HAT (or equivalent) role across contexts.

11.8.3 Summary for Evaluation Question 7(i)

Generalising strategies across contexts has resulted in the identification of three elements that schools, at the individual school and/or network levels might incorporate into planning. These were:

- strong school and network relationships;

²⁷ Appendix A available from authors on request.

- a facilitator with appropriate expertise; and
- a clear teaching and learning improvement agenda at all teacher career stages based on team planning and a collaborative school culture.

To support an improvement agenda, the HAT (or equivalent) role provided the facilitative dimension.

11.9 Overall Summary for Evaluation Question 7

11.9.1 Evaluation Question 7(a)

- The level of choice and/or involvement of C4Es in the initial application was identified as a key contextual factor that affected whether Spoke schools would engage with projects or become members of the learning communities' initiatives.
- The commentary indicated that strategic planning and action from C4E Principals and HATs (or equivalent) were required to overcome any reluctance of, or resistance from, spoke schools.
- The level of commitment and continuity of school leadership to the ITQ NP projects were presented as important to the success of the initiative.

11.9.2 Evaluation Question 7(b)

- The need for teacher education graduates to have greater knowledge and understanding of ATSI education was prominent in the commentary due to; more students identifying as ATSI; schools broadening responsibilities for ATSI support from specialised units to all teaching staff; C4E schools serving as beacons for ATSI education; increasing ATSI partnership projects through C4E hub and spoke model.

11.9.3 Evaluation Question 7(c)

- According to the C4E (or equivalent) school personnel who were interviewed, there appears to be very little difference required as far as preparation goes for pre-service teachers appointed to challenging, remote or metro schools.
- Commentary identified required knowledge and personal attributes that are mirrored in the expectations of the Australian Professional Standards for Teachers.

11.9.4 Evaluation Question 7(d)

- Preservice teachers need greater understanding of ATSI culture and learning differences, especially awareness of successful ways many successful teachers are approaching these critical issues.

11.9.5 Evaluation Question 7(e)

- There was little distinction drawn by interviewees between broad issues of teacher retention and preparation of pre-service teachers for school contexts.
- In terms of retention, strategies suggested included school-based incentives and support, more flexible career pathways, increased opportunities for collaboration and networking across schools.

11.9.6 Evaluation Question 7(f)

- Attraction of science and mathematics teachers, especially outside metropolitan areas, was presented as a more fundamental issue than retention.
- Strategies promoted for increasing retention were linked to more attractive terms and conditions in positions found in the broader community and were repeatedly presented as a perceived source of attrition for science and mathematics teachers.

11.9.7 Evaluation Question 7(g)

- Varying levels of confidence were expressed about the long-term sustainability of initiatives. Nevertheless, most principals outlined management plans aimed at sustaining or replicating the initiatives as much as possible by utilising remaining financial and human resources.

11.9.8 Evaluation Question 7(h)

- Cost effectiveness was seen, in part, in terms of reduced opportunities for shared professional learning and support for building a 'quality profession'. Central to maintaining a focus on enhanced professional teaching and learning was the preservation of the HAT (or equivalent) role.

11.9.9 Evaluation Question 7(i)

- There were similarities and differences with respect to models and strategies adopted within C4Es, involving HATs (or equivalent) and paraprofessionals
- Three C4E models were trialled: Hub and Spoke; Thematic; and a Centralised model.
- The HAT (or equivalent) role across all contexts was structured around responsibilities to work at a school level to improve teaching quality, to develop networks and learning communities, to support the analysis of student achievement data and to lead and support the teaching and assessment practice of other teachers.
- Paraprofessionals undertook a range of roles including supporting the engagement of Aboriginal and/or NESB students and their communities.

12 Evaluation Synthesis: Structures, processes and outcomes

12.1 Introduction

Chapters 5 to 11 of this Report have addressed the individual Evaluation Questions for each of the Evaluation Themes. This Chapter provides an overall synthesis of the Evaluation Questions in terms of the three organising principles of structures, processes and outcomes, which address the notion of quality – the core and underlying construct of ITQ NP initiatives.

In this discussion, key aspects of the Evaluation Questions/Themes are considered within a unifying perspective. This perspective, referred to as the Donabedian Framework, was discussed in Chapter 4. It offers the unifying perspective of structures, processes and outcomes to provide further insights into the sustainability of initiatives within and across contexts.

The extent to which a school/network can effectively engage in an improvement agenda focused on improving the quality of its teaching and learning can, to a certain degree, be monitored by how a school/network evaluates itself against contextually determined structures, processes and outcomes. An initial illustrative example is provided using HAT (or equivalent) attributes that are brought to that role.

Because of the central place of the HAT (or equivalent) role in ITQ NP initiatives, the professional attributes of the person in the role represent a *structural system* component. The associated *process*, in part, would refer to the application of particular attributes, such as, well-developed interpersonal skills to develop collaborative relationships within and across schools, or in the demonstration of exemplary classroom skills as the basis of supporting teachers across career stages and/or establishing role credibility. The *outcome* of these HAT (or equivalent) processes might be the support provided to teachers in their focus on improvements in teaching and learning through a range of activities, such as, team teaching, peer coaching, and establishing networks.

Feedback from such evaluations can provide a school with important guidelines about the sustainability of its efforts. A school that builds on an existing network comprising established stakeholder relationships will engage in a different range of processes compared with a school that is seeking to become part of a network. The outcomes will also be different; for example, a continued focus on teaching and learning initiatives in the former case, agreement on the nature of the stakeholder relationships in the latter.

12.2 Centres for Excellence Theme: Structures, Processes and Outcomes

12.2.1 Structures: Centres of Excellence Theme

Four distinct structural considerations, or system components, characterised the overall operational environment of schools implementing ITQ NP initiatives, namely:

- Establishment or operational guidelines that schools and school networks followed.
- Support and resources, which were made available to improve teaching and learning.
- Structures that supported whole school improvement.
- Availability of a facilitator whose role was partly concerned with ensuring that system components effectively met the requirements of contextual needs.

The establishment guidelines adopted at a within school or between school level were regarded as influential to the effectiveness of initiative outcomes. Whether allocated to, or self-selected to

be involved in, ITQ NP programs, a range of establishment principles that facilitated success emerged from the data. These included, but were not restricted to:

- working with like-minded people;
- building on existing relationships or partnerships;
- identifying mutual advantage and/or reciprocity;
- developing productive working relationships;
- working within limits with respect to project and network dimensions; and
- identifying a perceived need.

Relationship structures were at the core of successful C4E networks. The Principal at SC.22, for example, argued that the most effective partnerships were when schools came together on basis of previously established relationships, and selected people were 'enthusiastic' about the particular project.

Principals and HATs (or equivalent) who observed 'initially strained' relationships within and between schools identified issues hindering the establishment of effective relationships. These inhibitor structures included:

- diverse contextual settings between schools, (e.g., SES differences, size differences, location);
- time;
- funding;
- work-load to build the relationship;
- distance;
- access to resources – particularly funding;
- different school cultures; and
- different school goals.

In order to overcome these perceived impediments, personnel in schools identified four enhancing structures, namely:

- available time;
- the purpose of the relationship;
- a 'driver' to manage the relationship – most commonly identified as the HAT (or equivalent); and
- funding to support ongoing activities.

Where schools were involved in networks, these were of three types:

- hub and spoke, or co-ordinating and partner;
- schools and universities; and
- schools and community/industry.

These networks took the form of informal or formal relationships. All networks appeared most successful when stakeholders identified the collaborative partnership structures as 'mutually beneficial' and 'reciprocal'.

Key structures strengthening networks were seen to be:

- an explicit purpose;
- shared responsibility, vision and priorities across stakeholders; and
- support for teachers across networks through collaborative professional learning.

The same combination of impediments in the establishment of effective relationships was also observed in the operation of networks. Structures that enhanced the operation of networks, and which provided structure for improvements in teaching and learning, included

- teacher support;
- funded and collaborative professional learning; and
- targeted professional learning for particular groups, e.g., preservice teachers, Early Career Teachers, and isolated teachers.

Structures used to make improvements across whole school settings varied between schools. Patterns emerged from the data suggesting six structures that were conducive to improved outcomes. These structures were:

- school planning and management;
- leadership and co-ordination – using key personnel, e.g., HAT (or equivalent), paraprofessionals or academics;
- improvement discourse with measures related to improved pedagogy and teacher professional learning;
- informed contextually relevant programs, e.g., QTF frameworks, professional teaching standards frameworks, literacy and numeracy programs;
- teacher support, e.g., action research, virtual faculties, mentoring, and peer coaching; and
- student support, e.g., online learning management systems.

The HAT (or equivalent) role and person emerged across the data as a key system component to each of the areas of building and supporting collaborative relationships, supporting individual teachers and developing whole school improvement strategies.

12.2.2 Processes: Centres for Excellence Theme

There were three main processes associated with ITQ NP initiatives and these encompassed interactions at the individual teacher, group teacher and within/between school levels:

- maintaining a specific focus;
- facilitator interactions and;
- establishing collective responsibility.

Concerning the existence of a specific focus, a number were identified as relevant to C4Es. They included:

- professional learning;
- improved pedagogy;
- collaboration;
- collective capacity; and
- whole school improvement.

In the case of facilitator interactions, in most instances, this was the HAT (or equivalent), who was identified as an expert resource and as a ‘driver’ of initiatives within schools. Because of the prominence of their role, improvement agenda in schools were expressed in practice through the activities undertaken or coordinated by HATs (or equivalent). These activities included:

- modelling and demonstrating good teaching to colleagues;
- mentoring, coaching and supporting individual teachers;

- organising classroom observations, and team teaching;
- reflecting on practice and providing feedback;
- engaging in professional dialogue;
- providing access to technology and/or virtual networks to support teaching and learning;
- informing practice through the purposive use of data;
- facilitating context-specific professional learning offered to teachers across the school and/or school networks;
- working collaboratively with members of the school executive to plan and resource improvement strategies; and
- building networks and strengthening relationships with stakeholders.

In addition to the particular focus and activities adopted in schools, whole-school improvement discussions raise the third consideration, namely, the need for shared understandings and collective responsibility. Consequently, establishing consensus, working collaboratively and evaluating progress represent additional processes in the achievement of core outcomes.

12.2.3 Outcomes: Centres for Excellence Theme

The main outcome for schools and/or networks was a transitional one in the form of the HAT (or equivalent) role as the ‘driver’ of improvements in teacher capacity through increased support, as a result of either in-class practices or the establishment of team structures. These improvements encompassed a range of aspects of teacher pedagogy, and included:

- provision of feedback to colleagues and students;
- assessment practices;
- differentiating learning;
- professional dialogue;
- reflection on practice;
- use of ICT; and
- collaboration within and across schools.

Outcomes pertaining to students included improved student performance, student engagement and improved use of technology. Student performance outcomes manifested mainly as academic improvements, with additional improvements noted in attendance patterns, student retention and behaviour. A key consideration in this area was the mechanism used to make judgements about student performance.

Some schools argued for improvement based on external standardised testing results, e.g., NAPLAN and HSC, but these were questioned as reliable data sources over the time frame of initiatives. Data gathered internally, such as, student surveys and individual student profile data, were also used as quantitative measures. A broad range of qualitative measures included:

- the quality of classroom work;
- lesson observations; and
- internal assessments.

Additionally, teachers measured student performance outcomes through improved effort and quality in student work in exams, willingness to attempt new tasks, and an increased confidence in expressing and substantiating their ideas in classroom discussion.

Equally, student engagement outcomes were indicated through a range of measures including:

- observations;

- student surveys;
- improved student self-assessment;
- student reflection; and
- student response to feedback.

Access to technology was also reported to improve student-learning outcomes. The use of an online learning management system (i.e., MOODLE) and a Virtual Faculty Network (VFN) were examples cited. The VFN, for example, enabled students to take part in virtual excursions and it also increased student collaboration on assignments.

12.3 HAT (or equivalent) Theme – Impact: Structures, Processes and Outcomes

12.3.1 Structures: HAT (or equivalent) Theme – Impact

Three distinct structural considerations, or components, characterised the overall operationalization of the HAT (or equivalent) role and its impact, namely:

- the definition, or status, of the role;
- attributes of the person in the role; and
- elements of the teaching and learning environment.

The role was, in part, defined by its place in the career continuum in which it was located at the level of Head Teacher or Deputy Principal. As such, it provided an aspirational opportunity for classroom teachers or an opportunity for enriching professional practice for those already at the Assistant Principal, Deputy Principal or Head Teacher levels. Available timetable flexibility was an additional organisational consideration that influenced the workload of the HAT (or equivalent). The role was also defined by the time frame of ITQ NP funding, and whether or not the role retained its identity, was absorbed into other school roles, or was lost at the end of the time frame of ITQ NP funding arrangements.

Attributes of the HAT (or equivalent) that further defined the role included the expertise and skill set that were brought to the role, and the credibility with which the HAT (or equivalent) was perceived by the rest of the school/network. An extensive list of attributes emerged from the commentary that reflects the affirmation of the expertise of the person in the role by school personnel. This list included professional involvement, communication skills, the capacity to build relationships, organisation skills, building confidence in others, collaboration, and accessibility.

In addition to status and attributes, the third structural component of the role subsumed the conditions that were face by a HAT (or equivalent). For example, whether or not a learning community was/could be established had implications for how the role was performed. Additional contextual conditions included the presence (or not) of:

- rapport with school personnel;
- professional inertia;
- intra- and inter-school connectedness;
- a clear teaching and learning agenda;
- a culture of evaluating evidence or providing feedback;
- collaborative professional practices and dialogue; and
- shared responsibility for improvement.

The extent to which any one, or more of these conditions existed within schools/networks had the potential to determine the rate of uptake of ITQ NP funded initiatives.

12.3.2 Processes: HAT (or equivalent) Theme – Impact

Processes, or system interactions, that characterise the effective functioning of the HAT (or equivalent) role can be described at two levels:

- personnel interactions at the collective, school/network level; and
- the individual, HAT (or equivalent), level.

At the school/network level, key improvement processes can be summarised as:

- planning a clear, school wide, teaching and learning focus;
- developing a collaborative school culture;
- aligning contextual teaching and learning needs with project facilitator expertise;
- developing and sharing effective teaching and learning strategies;
- implementing a monitoring, feedback and evaluation framework for student learning; and
- building strong school/network relationships and partnerships.

The effectiveness of any one of these processes is predicated on the notion that there is an appropriate level of collective capacity to sustain a focus. The overall activities of the person in the HAT (or equivalent) role become another processes that supports, facilitates and sustains the focus on improvement. The scope of these HAT (or equivalent) activities is reflected in the following list that has been drawn from the survey and site visit commentary:

- coordinating teacher professional learning;
- participating in team teaching, demonstration lessons, peer coaching, and mentoring;
- coordinating student engagement projects;
- establishing and facilitating the operation of preservice teacher networks;
- developing and coordinating preservice teacher placements and induction programs;
- aligning and documenting professional practice against professional teaching standards;
- selecting and training professional experience supervising teachers;
- establishing Early Career Teacher networks;
- consolidating links with Tertiary Education Institutions at a professional experience and teacher professional learning levels; and
- coordinating action research projects.

Whilst the above two lists are not exhaustive, they do provide an indication of where a system needs to commit its efforts if it is to sustain an improvement agenda that is solely focused on teaching and learning.

12.3.3 Outcomes: HAT (or equivalent) Theme – Impact

Outcomes equate to changes to individuals and settings, and these changes were identified for HATs (or equivalent), teachers and schools/networks in terms of:

- professional growth;
- purposive use of student attainment data; and
- collective capacity.

A representative view that applied to the HAT (or equivalent) role was that it enabled the application within a teaching and learning context of accumulated professional expertise and insights. HATs (or equivalent) acknowledged that an outcome from taking up the role was not only consolidation of that expertise, but also its development and associated personal

professional growth. For teachers across career stages, a frequently expressed view was the notion that ITQ NP funded initiatives provided the opportunity to change professional practices through a sustained focus on needs-based professional learning. As part of this focus, teachers engaged routinely in collaborative reflection that included mentoring, coaching and team teaching, strategic feedback, focused conversations, networking, collaborative planning, and developing a repertoire of teaching and learning strategies. Professional growth and intra- and inter-school connectedness were identified as two of the major outcomes of this engagement.

The most often quoted outcome of the HAT (or equivalent) role was provision of opportunities for schools/networks to develop a sustained focus on a key aspects of their core business, namely, classroom-based, collaborative professional support. In addition, the role stimulated purposeful organisation of professional practice and positioned teachers to make improvements and to continue to pursue professional learning as a routine component of professional practice. The widespread uptake in the purposive use of student attainment data and the development of an online learning platform are two instances of HAT (or equivalent) facilitated activities that led to improved teacher and student engagement as well as improved student learning outcomes.

The promotion of a shared vision (referred to as 'collective capacity') around school improvement, relationship building – both within and beyond the school, as well as consolidating strategies that could be taken up by others were three additional planning and management outcomes identified.

12.4 HAT (or equivalent) Theme – Attributes: Structures, Processes and Outcomes.

12.4.1 Structures: HAT (or equivalent) Theme – Attributes

There were three main aspects of the HAT (or equivalent) role that can be considered as structural components. These were:

- the skill set required of the role;
- the professional influences brought to the role; and
- the career transitions associated with the role.

When discussing the skills and attributes that HATs (or equivalent) considered they brought to the role, a number of areas were referenced in their commentary. These related to:

- previous roles held;
- collaboration skills;
- particular classroom skills;
- contact with the profession beyond schools; and
- contact with the school community.

The descriptions that HATs (or equivalent) provided of professional influences that informed how they approached the role encompassed:

- ongoing professional growth as a basis for remaining informed;
- working with colleagues as both a mentor and a mentee;
- classroom teaching and learning experiences;
- applying skills acquired in other professional contexts; and
- contact with professional organisations.

Taken together, the HAT (or equivalent) skill set and professional influences provide a framework for working with teachers to improve teaching and learning.

The third structural component of the role was provided by the scope of career transitions, which can be described in terms of three pathways:

- clarification of career purpose;
- enrichment of current substantive positions; and
- promotion beyond the role.

12.4.2 Processes: HAT (or equivalent) Theme – Attributes

Processes associated with the HAT (or equivalent) role subsumed a strong focus on working with colleagues and reflection on the role within the context of a career continuum.

Working with colleagues encompassed enhancing professional practice, facilitating whole school improvements and improving student-learning outcomes. In terms of their professional practice interactions with others, the performance and behaviours of HATs (or equivalent) was informed by their backgrounds and acquired skills, which encompassed:

- previous roles held, e.g., assistant principal, subject coordinator, professional learning coordinator, action research coordinator, literacy facilitator, professional development and review coordinator, practitioner reflection coordinator, transition learning programs coordinator;
- collaboration skills, e.g., interpersonal, leadership, mentoring, people management and communication;
- particular classroom skills, e.g., catering for students with special needs, catering for disengaged students;
- contact with the profession beyond schools, e.g., subject specific consultancy, syllabus writing, subject associations, NSWIT;
- contact with the school community: extensive contextual knowledge, working with parents.

The extent to which HATs (or equivalent) could draw on this repertoire of skills and align them with the particular needs of school personnel contributed to the effectiveness of the role in facilitating collaborative professional practice and building relationships. Taken together, the skill set represents the elements of support, which was identified in survey and site visit commentary as the most important aspect of the role and the most important attribute of the person.

At a personal level, the role prompted deep reflection about professional identity and career transitions. References to the role as a 'stepping stone' were frequent in the commentary and possible next steps were in one of two directions, namely into administrative roles, such as Deputy Principal, or into teaching and learning roles.

12.4.3 Outcomes: HAT (or equivalent) Theme – Attributes

HATs (or equivalent) identified outcomes, or changes in school settings, in terms of the increased opportunities for professional learning, collaboration, and networking. These opportunities provided the support for increased professional dialogue, reflection about practice and professional growth. The desire to engage in ongoing professional learning and working collaboratively were two motivating influences articulated by HATs (or equivalent) for taking on the role. They saw these aspirations as being realised through outcomes, such as:

- shared practices with individual teachers or groups of teachers;
- support for New Scheme and Early Career Teachers;
- collaboration across schools; and
- insights into how other school contexts operate.

Addressing the diversity of professional learning needs meant that the role was perceived to be a facilitative role, and one which enabled teachers to better support themselves and their school. A valued outcome of collaborative professional practice was acknowledged as the development of strong and productive relationships.

Amongst the perceived changes in individuals, HATs (or equivalent) acknowledged the preparedness of staff to contribute to discussions of professional practice, the collective valuing of sustained professional learning, and the trust developed within groups of colleagues. HATs (or equivalent) also made reference to improved teacher confidence, increased teacher and student expectations in teaching and learning, enhanced job satisfaction on the part of teachers, and changed attitudes towards professional learning.

12.5 Paraprofessional Theme: Structures, Processes and Outcomes

12.5.1 Structures: Paraprofessional Theme

The first structure to be put in place was the employment of a paraprofessional. Fourteen of the twenty-one site visit schools did so. The data around the use of a paraprofessional role indicate structures put in place aimed at an improvement culture through teacher and student support and community relationships.

The structures varied from school to school among the fourteen site-visit schools that employed paraprofessionals. In each case the focus involved processes being put in place to support an improvement culture within the school.

12.5.2 Processes: Paraprofessional Theme

The majority of processes put in place directly provided improved support for teachers. The nature of the processes employed were clearly contextual depending on teachers' needs, the role chosen and the paraprofessional themselves.

The various roles aimed to free up teachers from administration, event management, learning new technology, and community engagement responsibilities so that they could concentrate more on their core business of teaching. Processes for paraprofessionals to contribute to the support to students did not feature strongly though processes in place did lead to some outcomes indicating support for students.

12.5.3 Outcomes: Paraprofessional Theme

The predominant outcome from the use of a paraprofessional was that it did free up teachers so that they concentrate more on their teaching. Positive outcomes either by the direct input of the paraprofessional or through improved training for teachers by the paraprofessional included:

- the improved use of technology;
- better use of data;
- improved community engagement;
- efficient administration; and
- events management.

The evidence allows for a reasonably strong inference that another outcome was enhanced job satisfaction of teachers and leaders and building of teacher capacity.

As already stated, paraprofessionals supporting students did not feature strongly in the processes put in place for the various roles with only two of the site visit schools employing the paraprofessional to work directly with students. Nonetheless, the data suggest outcomes, which indirectly supported students.

The use of a community engagement paraprofessional was identified as very successful with support for students flowing from support for parents. Technology support was also found to have the potential for student support by relieving teachers of the need to master the technical side.

12.6 Other Areas of Interest Theme: Structures, Processes and Outcomes

12.6.1 Structures: Other Areas of Interest Theme

Three distinct structural considerations, or system components, characterised the overall operational environment of schools implementing ITQ NP initiatives, namely:

- funding guidelines;
- the composition of leadership teams; and
- the HAT (or equivalent) as a facilitator.

The initial structure that shaped school settings was the framework by which they were involved in applying for project funding in the first instance. From commentary during site visits in particular, the nature of this structure, and the one-off funding arrangement, significantly determined the speed with which project initiatives were both accepted and implemented by school personnel as well as the subsequent degree of impact that these projects had on whole school improvements.

The composition of the leadership teams in schools was a second contextual component. In some instances, school principals had resigned, taken up new appointments or taken leave during the course of the ITQ NP initiatives, and levels of commitment by school personnel were sometimes diminished. Such changes impacted on the momentum of initiatives in schools, particularly where a new, or acting Principal's management priorities and ITQ NP engagement did not align with those of the leadership team, members of which had already established and were implementing a planned improvement agenda.

The HAT (or equivalent) role was acknowledged as a third contextual component. The person in the role was recognised by most school personnel as the chief 'driver' and facilitator in the various ITQ NP initiatives undertaken by each school. As with the formalisation of ITQ NP schools, there appears to have been considerable variation in the appointment methods of HATs (or equivalent) in schools. HATs (or equivalent) were a prime consideration in the Executive structure of some schools, whereas there was some diffidence to their appointment in other contexts. Approaches to appointment in turn influenced the perception by school personnel of the HAT (or equivalent), particularly if s/he was an outside appointment.

12.6.2 Processes: Other Areas of Interest Theme

There were three main processes associated with ITQ NP initiatives and these encompassed:

- the engagement of schools;

- choice of a facilitator, i.e., the HAT (or equivalent); and
- whole-school management for sustainability.

The way in which a school became involved in ITQ NP initiatives influenced the levels and speed of engagement of its staff and/or partner schools. Differential involvement occurred depending on the basis by which schools established programs or networks. A range of approaches were noted and these included:

- funds made available without involvement in the initial application;
- involvement in the application but with no choice in the selection of network schools, where relevant;
- full involvement of school personnel within and between schools as relevant in both the application and program; and
- retention of the initial 'drivers' at the school throughout the lifetime of the projects.

Principals who were involved throughout the application and implementation process largely remained engaged with and committed to the project/s throughout, whereas schools that experienced a change of principal during the life of the project sometimes found that the project direction itself was altered or even marginalised. Spoke schools that were consulted and/or otherwise involved in the project application were – and remained – more engaged with the hub school than those that were not.

Further, the apparent success of the project was also influenced by the success of a school in choosing a capable and suitable HAT (or equivalent). The process varied across contexts and ranged from well thought through specific selection criteria to a process that was poorly aligned with school needs. An additional consideration was whether or not the role was to be advertised externally or if the candidate was sought from amongst existing staff.

Maintaining continuity of leadership emerged as an important part of the overall implementation process. An additional aspect to the leadership dimension of successfully implementing initiatives was whether or not the HAT (or equivalent) was included as a member of a school Executive.

A view, expressed largely by Principals, was that many initiatives would struggle to continue when both funding and the HAT (or equivalent) role ceased. Reference was made to a number of key structural strategies that might contribute to sustainability, namely:

- modification of existing budgets or the use of funding from other projects to continue those initiatives considered crucial to the core business of school improvement;
- restructuring and redistribution of roles/workload within the school Executive and teaching staff;
- making part-time appointments of someone to oversee the management of projects stemming from the initiatives; and
- incorporation of ITQ NP initiatives into the overall school plan.

Of particular relevance is the notion of restructuring and redistribution of workloads as a means of sustaining initiatives. Positive aspects of such a process are the affirmation that particular initiatives are contextually effective, and opportunities provided to teaching staff to demonstrate leadership and professional expertise.

12.6.3 Outcomes: Other Areas of Interest Theme

Three main contextual outcomes were identified, namely:

- school and/or network engagement;
- whole-school understanding of sustainability strategies; and
- an effective facilitator of initiatives.

Engagement with ITQ NP initiatives was observed in practice through the establishment of effective learning communities, either within a school or across schools. The rate of implementation of initiatives did vary, and this was acknowledged as an outcome of the way in which schools were introduced to ITQ NP arrangements.

Partner school involvement was also slow or reluctant where, for example, the preparation and scope of the initial funding application was undertaken by the lead school, followed by the co-opting or directed involvement of partner schools. Where an existing improvement focus existed within a school or where a relationship was already established between a school and a network of partner school, ITQ NP initiatives operated effectively in a cohesive and timely manner.

An additional outcome indicator was the level of whole school understanding of sustainability strategies. Whole school and/or network improvements required an awareness across school personnel of processes that had been put in place.

A recurrent outcome was the notion of the HAT (or equivalent) role as being the ‘driver’ of initiatives within and across schools. Maintaining the right person in the role as a ‘champion’ of school improvement ensured sustainability and project effectiveness, where effectiveness can be equated with bringing separate elements into a cohesive whole. A particular instance referenced by a HAT (or equivalent) provides a comprehensive list of desirable outcomes that were associated with a clear structure, i.e., partner school that were engaged, and defined processes, e.g., collaborative professional learning. The list of outcomes facilitated by the HAT (or equivalent) encompassed:

- bringing teaching staff together;
- curriculum-based collaboration;
- development of teaching and learning materials;
- student engagement supported by technology; and
- student performance data collection and analysis.

The components of facilitator, collaborative network, teaching and learning focus, student engagement, and data analysis represent considerations that were identifiable across contexts that could be described as effectively addressing whole school improvement.

12.7 Professional Experience Theme

12.7.1 Structures: Professional Experience Theme

Structural aspects of professional experience as a ‘stable component’ of schools and/or networks involved in ITQ NP initiatives can be classified as being within or beyond the sphere of influence of C4Es. Structures within the sphere of influence in the long term of C4Es include:

- timing, duration and frequency of professional experience placements; and
- the university curricula.

Structures beyond the sphere of influence of C4Es include:

- the knowledge and skills specified within Standards; and
- accreditation requirements for initial teacher education programs.

Structures wholly within the sphere of influence of C4Es, irrespective of timescale, include school policies, professional learning programs, and school culture, etc.

Six prominent structures within the sphere of influence that emerged in the findings concerning the provision of quality professional experience for preservice teachers in C4Es included:

- the pedagogical leadership of the HAT (or equivalent) role;
- structured programs for preservice teachers and supervising teachers;
- school culture;
- workload;
- knowledge of the Graduate Teacher Standards (NSWIT, 2005); and
- Relationships with universities.

The time and the accessibility that the HAT (or equivalent) role availed and the pedagogical leadership of HATs (or equivalent) emerged as core components of the HAT (or equivalent) role structure. This role was seen to support the other structures, such as programs that operated within, across and/or beyond schools to provide professional learning for preservice teachers and/or supervising teachers.

Such programs and positive school learning cultures were mutually enabling structures embedded within an improvement discourse. The workload structure was multifaceted and encompassed numerous influential sub-structures that varied according to role and context. Key components of the workload structure for supervising teachers included:

- time;
- demand for professional experience placements;
- supervision guidelines;
- reporting requirements; and
- support from universities, which was often reported to be inadequate in responsiveness and extent.

Respondents also identified knowledge of the Standards as a necessary structure in the provision of quality professional experience for preservice teachers. Whilst professional learning programs designed to improve knowledge of the Standards were reported in the commentary, the findings indicated that supervising teachers' demonstrated knowledge of the Standards was a structure that needed strengthening in certain settings.

Structures concerning effective relationships with universities that emerged in the findings included designation of university liaison responsibility within C4Es and professional learning programs. Both structures were often connected through the HAT (or equivalent) role. The liaison role, whether performed by the HAT (or equivalent) or another coordinator, connects the C4E setting with the broader system in which professional experience is located, thereby increasing the possible sphere of influence of C4Es.

The connection between individual setting and the broader system can also occur through structured professional learning programs for supervising teachers, academic staff and/or preservice teachers. Professional learning for academic staff and preservice teachers through the C4E-university relationship expands the possible sphere of influence of C4Es to include the university curriculum.

12.7.2 Processes: Professional Experience Theme

Four main processes were emerged in the way C4Es 'operationalised structures' related to the provision of professional experience for preservice teachers, namely:

- facilitating an improvement discourse;
- undertaking quality supervision;
- planning professional experience placements; and
- maintaining effective school-university relationships.

The HAT (or equivalent) role emerged as a key personnel facilitation role structure and the findings indicated that processes frequently operationalised aspects of multiple structures. The operationalisation of the improvement discourse, for example, included the design, development and delivery of professional learning programs by HATs (or equivalent).

As noted above, such programs operated within, across and beyond C4Es. Programs operating across and beyond C4Es applied network-learning principles through collaborative partnerships with schools and universities, respectively. The improvement discourse also underpinned processes to evaluate and refine professional learning programs based on participant feedback and observed impact.

The findings indicated that quality supervision involved a diverse range of processes including:

- mentoring;
- modelling of exemplary practice;
- providing opportunities for preservice teachers to experience a diverse range of teaching situations;
- engaging preservice teachers in professional conversations and critical reflection; and
- providing feedback.

Quality supervision at the school level was also presented as encompassing preservice teachers' active participation in the wider school experience, such as inclusion in whole-school professional learning opportunities.

Processes involved in the workload structure indicated that many metropolitan C4Es were under strain as a result of the high demand for professional experience placements, with some schools reporting a 100% increase in the number of preservice teacher placements that they hosted. The processes that were implemented reflected the operationalisation of a management structure aimed at controlling the situation. Processes that were implemented included:

- introducing a competitive application process for preservice teachers seeking internship placements;
- reducing the number of professional experience placements that schools hosted;
- assigning preservice teacher supervision to teachers who were relatively new to the teaching profession; and
- simultaneously assigning more than one preservice teacher to supervising teachers.

In contrast, C4Es in provincial areas reported low numbers of preservice teachers undertaking professional experience placements and this was presented as a problem. The processes undertaken in one situation were exceptional and warrant coverage here. The school Steering Committee structure, which included a representative from the Shire Council, collaborated with a community to attract and support preservice teachers. The initiative, which was described as the *"jewel in the crown"* (SC.12, HAT, Turn 35) of the C4E initiatives undertaken within the school, involved the engagement of community mentors to welcome and support the preservice teachers in the community and collaboration within the community to provide free accommodation for the preservice teachers.

Processes involved in the operationalisation of effective school-university relationships included:

- regular liaison with universities, which was frequently undertaken by HATs;
- formal and informal dialogue;
- inclusion of academic staff on school advisory committees and in school staff meetings;
- university consultation with teachers concerning the content of university curricula;
- the involvement of teachers in the delivery of the lectures and tutorials to preservice teachers at universities;
- the provision of professional learning sessions for supervising teachers by universities; and
- orientation programs in host schools for academic staff.

12.7.3 Outcomes: Professional Experience Theme

Significant outcomes were identified for all stakeholders: schools, supervising teachers and universities. The findings indicated that structures and processes associated with the provision of high quality professional experience in C4Es resulted in cascading outcomes for supervising teachers and preservice teachers.

Outcomes for supervising teachers included:

- greater capacity to provide quality supervision as a result of the one-to-one support; and
- professional learning programs provided by HATs.

Outcomes for preservice teachers included professional learning through exposure to a diverse range of teaching situations, exposure to diverse range of students and feedback. In relation to the latter, however, the findings indicated that the nature and the substance of the feedback provided to preservice teachers could be improved by the provision of interventions aimed at increasing supervising teachers' capacity to articulate relevant, Standards-based feedback in some settings.

Significant outcomes resulting from C4E-university relationship structures and processes, such as the provision of professional learning programs and involvement on advisory committees, included:

- the development of mutual knowledge and understanding of contextual factors;
- organisational structures and processes;
- expectations;
- priorities;
- opportunities; and
- constraints.

Such insightful knowledge and understanding provides the foundation from which to review existing structures and processes, and to design, develop and implement others. The reflexive nature of the ongoing development C4E-university relationships, however, can be enabled or constrained by other outcomes. Reciprocity and mutual benefits emerged in the findings as key outcomes, which, if not met, can result in the termination of relationships.

The assumption underpinning professional experience initiatives is that the collective outcomes will culminate in higher quality teaching graduates.

12.8 Overview

Tables 12.1, 12.2 and 12.3, below, provide overviews of the structures, processes and outcomes for each of the Evaluation Themes. In terms of recurring structural elements across the Evaluation Themes, the HAT (or equivalent) role provided important support and facilitation dimensions to the implementation of ITQNP initiative within schools.

At the processes level, the notion of collective capacity is central to the operationalisation of structures. Whilst the HAT (or equivalent) role emerged as a key structure, it is not something that existed in isolation. Across the Evaluation Themes terms, such as, 'shared understandings', 'relationships', 'whole-school management' and 'discourse' emphasise a whole-school focus.

Professional growth, at all teacher career stages, as well as intra- and inter-school connectedness were identified as key outcomes for the Evaluation Themes. These two outcomes were promoted through indicators, such as, engagement, opportunities of professional learning, quality supervision and feedback.

The intent of this Chapter has been to synthesise the findings from the Evaluation Questions concerning improving teacher quality. The framework of structures, processes and outcomes – as constructs of quality, has been applied to furnish an overview of the recurring elements within the Evaluation Questions. These have been identified as:

- The need for an effective facilitator to support professional learning initiatives;
- The importance of collective capacity and shared understandings, and
- Maintaining a focus on professional growth and network relationships.

Table 12.1: Structures Overview

C4E	HAT (Impact)	HAT (Attributes)	Paraprofessional	Other	Professional Experience
Establishment guidelines	Definition and status of the role	Skill set	Definition and status of the role	Project funding framework and guidelines	Pedagogical leadership of the HAT
Support and resources	Attributes	Professional influences	Support	Composition of leadership teams	Structured PL programs for preservice and supervising teachers
Whole school improvement	Elements of the teaching and learning environment	Defined career transitions		HAT (or equivalent) as 'driver' and facilitator	School culture
Facilitator					Workload
					Knowledge of Graduate Teacher Standards
					Relationships with universities

Table 12.2: Processes Overview

C4E	HAT (Impact)	HAT (Attributes)	Paraprofessional	Other	Professional Experience
Maintaining a specific focus	Personal interactions at the school and/or network levels	Working with colleagues	Building community relationships	Differential engagement by schools	Design, development and delivery of whole-school professional learning programs
Facilitation	Scope of activities coordinated	Aligning skills with school needs	Providing teaching and learning support	Selection of HAT (or equivalent)	Improvement discourse
Shared understandings and collective responsibility		Reflection about professional identity		Whole-school management for sustainability	Quality Supervision
					Managing the demand for professional experience placements

Table 12.3: Outcomes Overview

C4E	HAT (Impact)	HAT (Attributes)	Paraprofessional	Other	Professional Experience
HAT (or equivalent) as support for improvements in TC	Professional growth	Increased opportunities for professional learning	Improved use of technology	Effective learning communities	Quality supervision
Student performance	Intra- and inter-school connectedness	Development of productive professional relationships	Community engagement	Whole school understanding of sustainability strategies	Professional learning programs
Student engagement	Purposive use of student attainment data	Teacher engagement	Events management	Presence of a 'champion' for school improvement	Diversity of professional experience
Use of technology	Collective capacity	Increased teacher and student expectations			Quality feedback

13 Evaluation Summary

13.1 Introduction

The Final Report addresses all Evaluation Themes and associated research questions by bringing together in summary form the quantitative and qualitative analyses of:

- (i) participants' comments in Surveys 1 and 2, and site visit interviews; and
- (ii) the professional experience reports and survey.

The commentary from Surveys 1 and 2 comprised written responses from 162 respondents who completed Survey 1 and 177 respondents who completed Survey 2, with 97 respondents in common; the interview corpus from the site visits, which comprised more than 680,000 words, was obtained from 104 interviewees across 22 sites.

In the Themes related to professional experience, there were two foci. The first concerned the analysis of professional experience reports provided by three universities. The professional experience report corpus, which contained more than 215,000 words, was compiled from 550 reports.

The second focus concerned the responses to a survey of preservice teachers preparing to teach as early childhood, primary or secondary school teachers and Graduate Teachers who were working towards accreditation at the Professional Competence career stage. They were asked to comments on a range of questions about their teacher preparation and the form of the professional experience they had completed or were to undertake. There were 789 respondents to the professional experience surveys. Analysis was restricted to those respondents whose most recent or final professional experience placement was undertaken in NSW.

The analyses presented in this Report, therefore, have been based on substantial data sets, and the conclusions and implications are based on analyses across all data sets. The summative findings below sequentially address each of the Evaluation Themes, although it is acknowledged that there are relationships within, across and between many of the Evaluation Questions.

The remainder of this Chapter is divided into four Sections. The first brings together an overall summary by considering each Evaluation Theme separately. The second considers implications for practice of the main findings of the Report taking into account the policy context in Australia, and NSW in particular. The third considers the three organising principles of structures, processes and outcomes, which are used to address the notion of quality. The final Section offers a brief concluding remark that encapsulates the research undertaken.

13.2 Overall findings

This Section considers the overall findings for the Evaluation Themes. In an attempt to minimise duplication, Evaluation Theme 2 and Evaluation Theme 3, and Evaluation Theme 5 and Evaluation Theme 6 are considered together, respectively.

13.2.1 Evaluation Theme 1

Evaluation Theme 1 concerned the extent to which C4Es have been effective in achieving improved teacher capacity and improved quality of teaching in hub and spoke schools (and other schools availing themselves of support from 'virtual' or thematic Centres for Excellence). Insight

into this evaluation question was gained through perceptions conveyed through Surveys 1 and 2 and site visits interviews.

Principals and HATs (or equivalent), in particular, evaluated the role of C4Es positively in this regard. They highlighted the many opportunities that C4Es presented for teacher professional learning, especially through the introduction of the HAT (or equivalent) role.

Considerable commentary addressed the perceived extent and effectiveness of C4Es for building teacher capacity and improving the quality of teaching in hub schools. Interviewees did comment, however, on instances where time to implement the initiatives was lost to the C4E. Most commonly when these comments were made they concerned the way in which the hub and spoke (or equivalent) initiative was implemented, namely, through the external specification of schools to be involved in particular hub and spoke clusters.

The evaluation participants also referred to a wide range of performance measures when commenting on whether C4Es improved student performance in both hub and spoke schools. References to external standardised testing as quantitative measures were often reported to be problematic, but other performance measures were used, such as student surveys and individual student profile data, internal assessment task results, and changes in the nature of rubrics used for tasks. In addition, Principals, HATs (or equivalent), executive members and teachers frequently referred to the quality of classroom work and student engagement as evidence of improved student performance. It was presented, often implicitly, that student success arose from teachers' increasing expertise in particular areas of pedagogy. Areas highlighted by respondents included improvement in:

- student's confidence to engage in learning;
- student feedback;
- reflection;
- strategic questioning;
- student engagement;
- purposeful assessment; and
- pedagogical expertise in particular targeted subject areas.

A number of effective relationships with partner universities were reported as consequences of the C4E initiative. Improved relationships were reported concerning preservice teachers undertaking professional experience (this is addressed separately below). Stronger relationships were also reported concerning professional learning for teachers based on workshops and action research projects, often in areas regarding the improvement of students' literacy and numeracy and the Quality Teaching Framework.

13.2.2 Evaluation Themes 2 and 3

Evaluation Themes 2 and 3 concerned two overarching perspectives linked to the HAT (or equivalent) role in schools, namely, the impact and attributes of the person in the role. Insight into these two related evaluation questions was gained through the elicited commentary during site visits interviews and data from Surveys 1 and 2. It should be noted that in commentary concerning the HAT (or equivalent) role, the attributes of persons undertaking that HAT (or equivalent) role, the activities performed by HATs (or equivalent) and the role per se were frequently conflated.

The HAT (or equivalent) position was perceived to be located on the career continuum between a Head Teacher and Deputy Principal. The role was reported to provide promotional opportunities for experienced teachers not wishing to leave the classroom for an executive role,

as well as a structure for enhancing teaching and learning across the school. Within the operational time frame of the HAT (or equivalent) initiative in schools, the issue of its potential to attract teachers to a range of contexts remains largely unresolved. Nevertheless, particular attributes possessed by a HAT (or equivalent) identified in this Evaluation suggest that they would be predisposed to make the successful transition to schools that are classified, for example, as hard to staff.

Considerable commentary was devoted to discussions of initiatives at the individual, group, whole-school and interschool levels that were designed to impact positively on student achievement. Of these, the use of attainment data was discussed widely. The commentary revealed a spectrum of approaches, the boundaries of which were comments on the improvement of student engagement, as a precursor to improvements in achievements overall, to improvements in results from external testing protocols. In all cases, a clear purpose and sustained expert support from the HAT (or equivalent) were identified to be essential components that facilitated an improvement agenda and engagement by staff in data use.

Moving beyond data use as a focus, the HAT (or equivalent) role also provided the opportunity for a school to develop a sustained focus on a key aspect of the core business of schools, namely, classroom-based, collaborative professional support. This focus was, in part, facilitated by the HATs' (or equivalent) accessibility. In addition, the role stimulated purposeful organisation of professional practice and positioned teachers to make improvements generally and to continue to pursue professional learning as an integral component of professional practice.

More aligned with professional growth than school management, the HAT (or equivalent) role enabled the application of a broad skill set that was identified as fundamental to creating school cultures that reflected sharing and collaboration by enhancing professional practice for individuals, teams and networks. Relevant skills was reported to include subject and curriculum expertise, highly developed interpersonal skills, the ability to support and engage others, capacity to maintain focus on professional learning, capacity to empower individuals and communities, the ability to balance the management of difficult contexts and teaching and learning aspirations.

The sustained facilitative role of the HAT (or equivalent) had the potential to bring people together within individual or collective school networks to advance the pursuit of goals. To that end, the promotion of a shared vision (referred to as 'collective capacity') in relation to school improvement, as well as relationship building – both within and beyond the school, were two strategies that reportedly characterised operationalisation of the role.

While the guidelines about teaching load for HATs (or equivalent) were clear in position statements, these guidelines were often interpreted differently in order to maximise the time HATs (or equivalent) spent with teachers. This resulted in divergent responses based on contextual needs to the question of whether the HAT (or equivalent) role should include a teaching load. One argument was that HATs' (or equivalent) 'credibility' depended on this; the counter argument was that the reduced availability and accessibility of the HAT (or equivalent) would constrain the range of their work. The discussion was really about the *kind* of teaching in which the HAT (or equivalent) should engage: having their own classes, or spending time demonstrating in other teacher's classes.

Commentary from the HAT (or equivalent) group provided insights into how they saw the role defined in terms of their respective professional backgrounds, aspirations and the impact they were having on teacher capacity. Skills that found expression in the role were reported to include:

- those acquired in previous roles;
- skills that might facilitate collaboration;
- classroom skills;
- the ability to liaise with a range of professionally-based organisations; and
- well-developed communication skills.

The HAT (or equivalent) role was reported to prompt deep reflection about professional identity and career transitions. Influences that HATs (or equivalent) presented as important in shaping their current professional perspective included:

- ongoing personal professional learning;
- being both a mentor and a mentee;
- experiencing a range of teaching and learning contexts;
- maintaining contact with student learning; and
- engaging in professional networks.

Three main reasons were enumerated by HATs (or equivalent) as influencing their decision to apply for the role and these were:

- (i) opportunities for collaboration;
- (ii) personal conviction and motivation; and
- (iii) the desire to improve student learning outcomes.

HATs (or equivalent) evaluated the role as being rewarding in terms not only of opportunities, but also in terms of feedback. HATs (or equivalent) presented the role as being one that embodied support and the collaborative building of relationships to enhance teacher practice within and across schools.

HATs (or equivalent) presented the purpose of the role in terms of aspects related to people, activities and their own attributes, and engagement with a wide range of personnel and professional organisations. Whilst many tangible instances of impact were identified, these can be generalised as empowering and supporting others to take personal and shared responsibility for enhancing teaching and learning. An additional impact was stated as a consequence of building capacity in others, namely, improvements in student learning.

13.2.3 Evaluation Theme 4

Evaluation Theme 4 provided insights into the Paraprofessional initiative. Insights into this Evaluation Theme were gained through Surveys 1 and 2 and the semi-structured interviews. The extent to which the Paraprofessional role had been 'effective' in achieving improved support for individuals or groups of students, however, did not have a high profile in the commentary. Nevertheless, the respondents provided commentary on the activities of paraprofessionals that supported students both directly and indirectly.

As was the case with the HAT (or equivalent) role, it should be noted that during interviews or commentary on the Paraprofessional role, the attributes of persons undertaking the Paraprofessional role, the activities performed and the role were frequently conflated.

The role of the Educational Paraprofessional was an in-classroom role to support teachers. Nevertheless, there was some evidence to suggest that Community Liaison and ICT Paraprofessionals provided support to students as well. The direct support of paraprofessionals for students received mixed evaluations. The support provided by Community Liaison Paraprofessionals and ICT Paraprofessionals, however, was evaluated as indirectly having positive impact on students through the support that the roles provided to parents and teachers,

respectively. The commentary, however, indicated that school personnel did not perceive that the Paraprofessional role directly improved student performance.

In all cases, the improved support for teachers provided by the paraprofessional initiative was attributed to relieving teachers from:

- relieving teachers from administration;
- event management;
- learning new technologies; and
- community engagement responsibilities.

Thus, the commentary indicated that the Paraprofessional initiative enabled teachers to concentrate more on the core business of teaching.

The extent to which the Paraprofessional initiative had been effective in enhancing job satisfaction of teachers and leaders did not have a high profile in the commentary. The evidence concerning the support that enabled teachers to concentrate on pedagogy, however, enables the inference that the role may have enhanced job satisfaction of teachers.

The commentary did not provide evidence that the Educational Paraprofessional role had provided an effective and beneficial pathway into the teaching profession. Within a highly competitive employment market it was those people who already held or were working toward a teaching qualification who were successful in attaining positions. As a result in the sites visited, the paraprofessionals who had made or who were in the process of making the transition into teaching already had teaching qualifications. None of the paraprofessionals who did not hold teaching qualifications commenced teacher education courses during their appointment.

13.2.4 Evaluation Themes 5 and 6

Evaluation Themes 5 and 6 concerned professional experience for preservice teachers and insights were gained from all data sets under examination. Insights into whether C4Es prepared higher-quality teacher education graduates, who were better equipped and prepared to teach in NSW schools, were gained from site interviews, professional experience reports and professional experience surveys. Such insights were necessarily partial because the time frame for the evaluation did not enable a longitudinal study of difference in the relative efficacy of teachers who undertook their professional experience in C4E and other schools.

Consequently, the intent of Evaluation Theme 5 was inferred to mean:

Have teacher quality initiatives been implemented in C4E schools, enabling them to provide higher quality professional experience for preservice teachers than schools that have not participated in the initiatives?

The interview commentary partially addressed the inferred Evaluation Theme. The commentary provided information concerning practices that were reported to be implemented in C4E schools to support preservice teachers undertaking professional experience and outlined factors that were reported to contribute to environments that were conducive for preservice teachers' growth. The commentary indicated that various programs were implemented to support preservice teachers and/or supervising teachers. The role of HATs (or equivalent) in facilitating initiatives that supported preservice teachers and/or supervising teachers was emphasised.

It was also reported that most C4Es in metropolitan areas were hosting very high numbers of preservice teachers, and that the numbers had increased significantly since being assigned C4E status. Commentary from a small number of C4Es reported that no special provisions had been

implemented to support preservice teachers and that most C4Es in provincial areas hosted low numbers of preservice teachers.

Some interviewees offered comparative assessments of the performance of C4Es and non-C4Es in the provision of high-quality professional experience for preservice teachers, but the comments expressed personal opinions only. Some expressed positive assessments; others were ambivalent; none were negative.

The quantitative analysis performed on the professional experience reports concerned the number and pattern of Standards referenced per summative commentary in professional experience reports. This analysis provided information concerning the comments and the extent that supervising teachers were able to use the existing reporting frameworks to describe the practices of preservice teachers. Aspects of preservice teaching practice that supervising teachers were able to more commonly identify and describe were also identified. Finally, the analysis determined differences amongst teachers' summative commentary that described teaching practices against the professional standards.

The findings indicated that teachers more commonly wrote about: the social aspects of the teaching role (rapport with students, teamwork, involvement in the wider aspects of the school and community); the visible artefacts of teaching (lesson plans, resources, use of information technology); the level of control and order the preservice teachers are able to maintain over their classes; preservice teachers' self-efficacy and demeanour as demonstrated in their 'professionalism', that is, dress, manner and behaviour; and their willingness to engage with colleagues, to listen to and accept advice, and to learn and develop.

While not pertinent to the Graduate Teacher Standards, supervising teachers also provided commentary on characteristics such as dispositions relating to professional capacity (e.g., being flexible, organised), tenacity (e.g., being committed, resilient, proactive) and affect (e.g., being passionate, confident).

The areas of the standards that supervising teachers least referenced were concerned with relationships with parents and caregivers, knowledge of literacy strategies, catering for diversity in the classroom, knowledge of student development, outcomes-based approaches to learning and assessment, use of educational research and knowledge of the professional standards to inform teacher development.

Given that advice to preservice teachers will always be contextually motivated, i.e., in response to how the preservice teacher responds to the teaching and learning context in a particular school, the advice/report from supervising teachers represents an implicit prioritising of the Standards. For some standards the level of commentary could be perceived to be related to the opportunity for a preservice teacher to demonstrate the Standard in the context in which they were working. A further caveat to the findings is that the analyses only provide information on the degree of referencing of Standards in the summative commentary with the implication being that these report summaries correlate with what occurred in practice.

The apparent differences, however, suggest the need for further discussion, and analyses of ways supervising teachers might improve preservice mentoring and report detail further. This implies that intervention by the Board of Studies, Teaching and Educational Standards (BOSTES), universities, school systems and schools to provide practical advice could be in the long-term interests of all stakeholders.

The Rasch analysis of commentary from the professional experience reports enabled some comparative insights into the professional experience offered in C4Es and spoke schools and

schools not participating in the ITQ NP reforms. Professional experience reports from C4E and spoke schools had higher mean summative commentary detail estimates, i.e., which measure the extent that Standards are referenced by supervising teachers', than reports from schools not participating in the ITQ NP reforms, although the difference was significant only for spoke schools. These findings suggest that teacher quality initiatives focused on collaborative networking and mentoring in spoke schools have impacted positively upon supervising teachers' capacity to articulate and describe teaching practice in terms of the Graduate Teacher Standards specified in the *Professional Teaching Standards* (NSWIT, 2005).

Rasch analysis of responses to survey 2 determined response estimates, which were grouped into five bands according to their location on each of the Rasch scale bands. The location bands of each group were then compared with the survey question estimates to identify the knowledge and valuing specific to each location band. These data provide a means of describing in qualitative terms a hierarchy of respondent 'knowing' and 'valuing' of initiatives. This hierarchy, which represents a developmental picture of respondent knowing and valuing of the ITQ NP initiatives, has the potential to inform ways in which this and other improvement strategies are introduced and enacted in schools.

Findings from the qualitative and quantitative analyses of Surveys 1 and 2 and the qualitative analysis of the semi-structured interviews provided insights into elements of effective relationships with universities. The findings identified the importance of both formal and informal relationships. Formal relationships often involved the design, development and delivery of structured programs.

The nature of the programs differed considerably, but professional learning for supervising teachers, teacher educators and/or preservice teachers was a common feature. Dialogue, shared understandings and expectations, university responsiveness and reciprocity/mutual benefits were also identified as important features within and/or in addition to structured programs. The role of HATs (or equivalent) in facilitating and maintaining effective relationships with universities was emphasised.

In relation to Evaluation Theme 6, participants enumerated various costs associated with providing professional experience for preservice teachers in C4Es, although commentary that specifically addressed the explicit question concerning the notion of *cost effectiveness* in the interview protocol was not forthcoming. Opportunity costs that were enumerated included:

- increased workload associated with mentoring;
- report writing and processes associated with preservice teachers that may not be performing well;
- fatigue resulting from mentoring preservice teachers;
- the adverse effect that 'at risk' or failing preservice teachers can have on relationships within the school; and
- costs to universities' reputations if preservice teachers are not performing well.

The notion of cost, however, was often counterpoised by discourses of commitment to future generations in the profession and responsibility to provide high quality professional experience, as well as explicit acknowledgement of reciprocal benefits for schools.

13.2.5 Evaluation Theme 7

Other features of interest in the Evaluation concerned: contextual factors; the preparation of teacher education graduates who are better equipped to teach in NSW challenging schools, such as, those that are remote or which have high Aboriginal enrolments; the needs of new teacher

education graduates for successful teaching in challenging schools; teacher retention; ATSI education; and factors affecting sustainability of the initiatives. Data concerning these other features of interest were located in all data sets under examination. Each of these features is addressed below.

The degree of direct involvement of the C4E or spoke school in the original nomination for funding was reported to directly impact upon the speed of implementation and depth of project engagement. The following issues were identified.

- Where C4E schools had little choice or involvement in the initial application, the risk that their spoke schools would not engage with the project/s or become immersed in the learning communities initiatives increased.
- Where C4E schools were involved in the preparation and direction of the ITQ funding application but their spoke school 'partners' were co-opted or directed to join with them, the chance of spoke school involvement being slow or reluctant increased.
- Where spoke schools were involved in the project from the start, the likelihood that the program/s themselves would flourish in a far more cohesive and timely fashion increased.

The level of commitment and continuity of school leadership to the ITQ NP projects was also presented as being important to the success of the initiative. For example:

- principals who were involved throughout the successful application for ITQ NP funding as well as the implementation process were reported to largely remain engaged with, committed to and supportive of the project/s throughout the funding cycle; and
- personnel in schools that experienced a change of principal during the period of the project sometimes reported that the project direction itself was altered, marginalised or compromised in some way.

The commentary indicated that the suitability of the HAT (or equivalent) appointment was pivotal. For example:

- HATs (or equivalent) were described by most school personnel as the chief drivers/participants in the various ITQ NP projects initiated by each school, so the suitability of their appointment was more critical to the project's success than perhaps initially considered by school leadership; and
- HATs' (or equivalent) appointments were reported to range from prime considerations in the planning of some schools to what amounted to after-thoughts in others. The commentary indicates that this, in turn, impacted upon the speed of an appointment and appeared to influence the way in which that HAT (or equivalent) was initially perceived by school staff, particularly if s/he was an external appointment.

Another issue identified in the interview and survey data related to the dynamics of the hub and spoke clusters. This was repeatedly presented as a key contextual issue. Key factors that reportedly affected the dynamics of this issue were whether:

- capable and suitable HATs (or equivalent) had been appointed;
- schools had been involved in the ITQ NP application process;
- schools had been involved in the application process, but had had other schools in the hub and spoke cluster externally assigned;
- there was full and willing involvement of all schools in the hub and spoke clusters; and
- the initiators of the involvement remained at the school for the duration of the project.

A second area of interest that was repeatedly presented in the commentary indicated that participants did not distinguish perceived needs of new teacher education graduates teaching in challenging schools from teaching in other settings. Needs that had a high profile in the commentary for all graduates included:

- more extensive professional experience placements, involving increased frequency and/or duration;
- higher levels of personal literacy and/or numeracy;
- greater knowledge of legal responsibility, especially with respect to complex parenting and family contexts; and
- greater knowledge and understanding of, and greater expertise in, classroom management, and differentiated teaching and assessment.

In addition to the teacher education training needs articulated above, there was also substantial commentary related to individual and network support structures for beginning and Early Career Teachers. Teachers articulated a set of considerations around preparing graduates for teaching in challenging schools as:

- the isolation experienced by graduate teachers;
- the importance of providing mentors;
- the need to develop resource networks; and
- the preference for and benefits of early exposure to school environments in teacher education programs.

Teacher retention had a high profile in the commentary on additional areas of interest. In relation to the retention of science and mathematics teachers, the participants repeatedly re-directed attention to the issue of attracting science and mathematics teachers in the first instance, especially outside metropolitan areas. More attractive terms and conditions in positions other than teaching were repeatedly presented as a perceived source of attrition for science and mathematics teachers.

Beyond these specific instances, the participants focused on general factors affecting teacher retention. Such factors included:

- school location;
- favourable work conditions;
- the rewarding nature of teaching itself, including 'making a difference';
- increased levels of professional support available in the school, specifically mentoring provided by the HAT (or equivalent);
- greater incentives for teachers, such as financial compensation, especially in rural and remote locations; and
- increased opportunities for teachers to become experts in particular school curriculum operations and to share that expertise in leadership roles other than school administration positions.

However, the participants did not address fully factors in preservice teacher education that would increase the retention of high quality teachers in challenging schools. With respect to the retention of early career teachers, the participants articulated the need for preservice teacher education courses to incorporate more professional experience in order to better prepare graduates for teaching.

Commentary concerning Aboriginal and Torres Strait Islander education indicated that a high proportion of school personnel reported Aboriginal and Torres Strait Islander education as an integral element in the ethos of schools. It was repeatedly emphasised that responsibility for

Aboriginal and Torres Strait Islander education was not assigned to the HAT (or equivalent) role because it was regarded as the responsibility of all personnel. The participants provided information on a range of programs designed to support Aboriginal and Torres Strait Islander students, sometimes in partnership with universities. The need for teacher education graduates to have greater knowledge and understanding of Aboriginal and Torres Strait Islander education was also prominent in the commentary.

Most school personnel commented on factors affecting sustainability of C4E initiatives. A key feature in the commentary was varying levels of confidence about the long-term sustainability of initiatives in the participants' respective schools. Most principals candidly stated that many initiatives would struggle to continue when funding and the HAT (or equivalent) role ceased. Nevertheless, most Principals, HATs (or equivalent) and other executive members indicated that schools were trying to sustain the initiatives as much as possible by:

- accommodating C4E initiatives believed to be crucial to the core business of the school within existing budgets or substituting (or at the very least, subsidising) funding from other projects;
- restructuring school executive roles to incorporate aspects of the HAT (or equivalent) role;
- designating a staff member to oversee the major projects stemming from the C4E;
- incorporating the C4E/HAT (or equivalent) plans into the overall school plan; and
- assigning greater responsibility to teachers in the continuation of the initiatives following increases in teacher capacity as an attributable outcome of involvement in C4E initiatives.

Amongst the three initiatives C4E, HATs (or equivalent) and paraprofessionals the initiative with the greatest impact on changed practice was the HAT (or equivalent) initiative. While C4Es were the important structural focus of whole school planning for change and for developing collaborative networks within and amongst schools, much of the change was driven by the HAT (or equivalent) role. Further the HAT (or equivalent) facilitated direct support for improvements in teaching through their capacity to model effective practice and to mentor other teachers. The discussion around cost effectiveness focused on the professional learning consequences of not preserving such a role.

Finally, the HAT (or equivalent) role was identified as one of three planning elements that schools could adopt regardless of context. The three elements were identified as:

- strong school and network relationships;
- a facilitator with appropriate expertise; and
- a clear teaching and learning improvement agenda at all teacher career stages based on team planning and a collaborative school culture.

13.3 Structures, Processes and Outcomes

The Evaluation Questions were further considered in terms of the three organising principles of structures, processes and outcomes, which address the notion of quality – the core and underlying construct of ITQ NP initiatives.

In the context of the Evaluation Questions presented in this Section, outcome measures include the quality of the teaching and learning environment, job satisfaction, enhanced teacher capacity, and student learning outcomes.

The extent to which a school/network can effectively engage in an improvement agenda focused on improving the quality of its teaching and learning can, to a certain degree, be monitored by a school/network evaluating itself against the contextually determined sequence of structures, processes and outcomes. An illustrative example is provided using the professional attributes that HATs (or equivalent) were reported to possess.

Because of the importance of the HAT (or equivalent) role in ITQ NP initiatives, the professional attributes of the person in the role represent a *structural system* component. The associated *process*, in part, would refer to the application of particular attributes, such as, well-developed interpersonal skills to develop collaborative relationships within and across schools, or exemplary classroom skills to support teachers across career stages and/or to establish role credibility. The *outcome* of these HAT (or equivalent) processes might be the support provided to teachers through a range of activities, such as, team teaching, peer coaching, and establishing networks.

Feedback from such evaluations can provide a school with important guidelines about where to sustain efforts. A school that builds on an existing network comprising established stakeholder relationships will engage in a different range of processes compared with a school that is seeking to become part of a network. The outcomes will also be different; for example, a continued focus on teaching and learning initiatives in the former case, agreement on the nature of the stakeholder relationships in the latter.

13.4 Implications for Practice taking into account the policy context

This Section reports implications for practice. The same structure used in the previous Section, 13.2, applies here where implications are linked to particular Evaluation Themes. In particular, the observations are relevant to, and fit under both the associated long-term foci of the ITQ NP agreement and the themes developing out of the NSW milestone reforms from *Great Teaching, Inspired Learning: A Blueprint for Action* (NSW DEC, 2013).

13.4.1 Evaluation Theme 1

Three main implications emerged under Evaluation Theme 1, concerning C4Es.

Implication 1.1: concerns the impact of longitudinal needs-based professional learning. The structure of a continuous and ongoing focus on aspects of professional learning in context, rather than one-off courses, was seen as strongly developing teacher capacity. Such learning occurred through a set of similar strategies. These included:

- instructional rounds;
- peer coaching;
- team teaching;
- demonstration lessons;
- classroom observations; and
- action learning (a form of collaborative action research)

The HAT (or equivalent) was central to these strategies and the retention of the HAT (or equivalent) role in NSW schools would be a highly positive and advantageous outcome of the C4E initiative.

This implication highlights a significant issue concerning the form of Teacher Professional Learning (TPL). It represents a reconceptualisation of what schools can do for themselves, rather than what outside agencies can provide. It represents a way of energising schools and building

on their strengths and capacities, thereby enabling education jurisdictions to reconceptualise the way they deliver TPL support.

Implication 1.2: concerns the benefits, other than financial, of having the HAT (or equivalent) work with a number of schools in a network model, such as the hub-and-spoke model. A network structure requires schools to undertake collaborative curricular and pedagogical planning. However, consideration of self-organising processes that enable schools to collaboratively form structures and select partners in their own ways is required. The current DEC initiatives towards schools forming their own networks could be of great assistance in this work.

Implication 1.3: relates to the potential of action research as a form of professional learning. This offers a way of addressing the important question of sustainability. It was also an important feature of some professional learning in C4E schools. Preservice teachers with Master's degrees will soon be graduating around Australia under *Australian Qualifications Framework* (Australian Qualifications Framework Council, 2013), Level 9 guidelines. This change will have provided teachers with knowledge and experiences of research design. Individual academics worked well in C4E schools with which they had relationships. An important feature of developing academic-school relationships could be for academics to focus on assisting schools with developing action-learning models in the school. Such a focus on research may help align university and school imperatives more closely.

13.4.2 Evaluation Themes 2 and 3

There were four main implications that relate to Evaluation Themes 2 and 3, concerning the HAT (or equivalent) role. These directly address Outcomes and Actions detailed in *Great Teaching and Inspired Learning: A Blueprint for Action* (NSW DEC, 2013) concerning entry into the profession, developing and maintaining professional practice, and recognising and sharing outstanding practice.

Implication 2/3.1²⁸: *The first implication* affirms an integral component of the HAT (or equivalent) role, namely, the provision of support to teachers across all career stages, but particularly at the preservice, Early Career and New Scheme teacher levels. There is a potential to review the many induction programs that were facilitated and coordinated by HATs (or equivalent) in ITQ NP and LOW SES NP partnership schools to identify best practice in the provision of professional experience and entry, or re-entry, into the profession. Such a review would also identify the elements of effective relationships between schools, networks of schools and universities.

The second implication 2/3.2: addresses the legislative and policy requirements that the *Australian Professional Standards for Teachers* (APST) (AITSL, 2011) apply to all NSW teachers. Evaluation survey data indicated that the HAT (or equivalent) role facilitates certification at the voluntary (higher) level career stages (AITSL, 2012) by providing the opportunity to demonstrate and document practice at the Highly Accomplished and Lead career stages. This opportunity was recognised across school personnel. People in the HAT (or equivalent) role and the experiences gained in the certification process constitute resources that needs to be shared within the profession to motivate other teachers to consider options for aligning their professional practice with the APST and, possibly, applying for certification. There is also a need to recognise, as role models, other teachers who have achieved accreditation at the voluntary career stages and to implement strategies for sharing their experiences within the profession.

²⁸ Implication 2/3.1 denotes the first implication arising from Themes 2 and 3.

Implication 2/3.3: addresses the need to acknowledge the HAT (or equivalent) role as a distinct career option in schools. In the context of the short time-frame of the ITQ NP initiatives within schools, options for professional life at the conclusion of programs were far from clear. For some, the role became a stepping-stone in the progression to leadership and senior management positions in schools. For others, who returned to their substantive positions, they did so knowing that their own professional practice had been substantially enriched. The HAT (or equivalent) role was widely identified as an important component of sustaining a school/school network improvement agenda that has a clear teaching and learning focus. Systems need to seek ways to ensure the identity and autonomy of this role within the profession.

Implication 2/3.4: builds on the notions that teaching is best if it is a collaborative process and that the HAT (or equivalent) role was recognised as a ‘driver’ of developing collective capacity. This implication recognises the impact of those aspects of the HAT (or equivalent) role that supported the professional practice of teachers across career stages, either within individual schools or across networks of schools. The HAT (or equivalent) role provided extensive opportunities to engage in and facilitate teaching and learning activities, particularly so that teachers could share the responsibilities for whole-school improvements.

The number of school and outside-organisation personnel with whom the HAT (or equivalent) had interactions was also extensive. A key attribute of the HAT (or equivalent) role that emerged was the potential to establish, develop and maintain effective relationships, and there were many instances across ITQ NP and LOW SES NP schools where this attribute was expressed successfully in practice. The HAT (or equivalent) role, associated attributes and its sustained teaching and learning focus, have the potential to enhance contextually relevant professional practice.

13.4.3 Evaluation Theme 4

There were two main implications identified in Evaluation Theme 4, concerning the Paraprofessional role. The first is drawn from the federal policy context and the second is related to the NSW State agenda.

Decisions concerning the possible introduction of educational and/or operational paraprofessional positions, and the precise nature of the role that such paraprofessionals might perform within a school are necessarily contextual. One theme that emerged from successful initiatives was that, with careful selection, paraprofessionals could perform multi-dimensional roles that provide a range of benefits to staff and by implication students.

Implication 4.1: is consistent with the five high-level educational outcomes suggested in the terms of The Council of Australian Governments (COAG, 2009). The paraprofessional role contributes to the realisation of COAG’s outcomes as follows.

- *“All children are engaged in and benefiting from schooling”* (COAG, 2009, p. 3) – through providing support for teachers to concentrate more on the core business of teaching.
- *“Schooling promotes social inclusion and reduces the educational disadvantage of children, especially Indigenous children”* (COAG, 2009, p. 3) – through developing good relationships with the local community resulting in enhanced parent and wider community involvement in the school-learning environment (especially in more remote areas).

Hence, the strategic, contextualised use of a paraprofessional role has the potential to support the ITQ NP agreement (COAG, 2008) to develop “teachers and school leaders to enhance their skills and knowledge throughout their careers” (ACARA, 2013, p. 13).

Implication 4.2: links with policy ideas from *Local Schools, Local Decisions* (NSW DEC, 2011). One focus of this report concerns the opportunity for schools to use paraprofessionals to support their school improvement programs. In particular, the following reforms are relevant. These are:

- the ability of schools to choose the number and roles of staff and the mix of permanent and temporary staff within their budgets to best meet local needs; and
- strengthened performance management and professional development linked to the school plan and professional standards for all staff.

13.4.4 Evaluation Themes 5 and 6, 6a and 6b

There are two main implications that relate to Evaluation Themes 5 and 6, which concern preservice professional experience.

Implication 5/6.1: concerns the differences identified in the analyses of ways supervising teachers mentor preservice teachers, and make commentary against the Professional Standards. Supervising teachers need advice on how they might improve or enhance preservice mentoring and report detail. This implies there is a need for improving the current advice to teachers on how to report against the standards.

Implication 5/6.2: concerns the development of common processes, requirements and expectations that facilitate comparable professional experiences for preservice teachers within and across universities and schools. For example:

- Universities could direct more attention to providing advice on, and monitoring of, the quality of the professional experience (Reports and practice) to ensure that the professional experience is not affected by course type;
- school systems and schools need to promote collaborative networking both within and across schools to strengthen the mentoring capacity of supervising teachers in the provision of the professional experience;
- schools presently designated as 'C4Es' and, where applicable, schools presently designated as 'spoke schools' need to sustain the current collaborative networking presently facilitated by HATs to strengthen the mentoring capacity of supervising teachers in the provision of the professional experience; and
- school systems and schools need to better support supervising teachers' capacity to work with the Graduate Teaching Standards in reporting preservice teachers' accomplishments and needs.

Implication 5/6.2: the enhanced structures, processes and expertise that have been built in C4Es to support preservice teachers need to be sustained, promoted and further documented. C4Es should be designated (maybe recognised?) as specialist professional experience schools, providing models that increase support for and the quality of professional experience placements. The role of the HAT (or equivalent) was critical to the facilitation, coordination and support for the professional experience in schools. This was achieved through the design of effective context relevant programs, and developing, facilitating and maintaining effective relationships with universities.

13.4.5 Evaluation Theme 7

There were five main implications related to Evaluation Theme 7, concerning Additional Areas of Interest.

Implication 7.1: is consistent with Michael Fullan's (2005, 2007, 2009) 'change theory', which

suggested that change is more effective when it is 'bottom up' rather than 'top down'. The findings outlined in this report strongly suggest that in future initiatives of this nature, systems need to consider the ways in which school groupings (e.g., C4E and spoke schools) are determined to achieve full, immediate and cohesive involvement from both school administrators and teaching staff.

Implication 7.2: is as much about attracting teaching staff in regional/remote schools as it is about retaining them. During site visits school principals, in particular, were confident of keeping staff once they arrived, but getting them to commit initially seemed to be an issue that requires systems and/or autonomous schools to consider wider financial incentives to attract quality staff. This has wider and significant industrial implications. Significantly, there may need to be different sets of policies for attracting and retaining teachers in regional/remote schools. This may have broader implications for schools, including the need for differentiated wage scales based on geographical location and/or teacher shortages in particular subject areas.

Implication 7.3: concerns what was seen as the most resounding success of the ITQ NP initiative, that is, the creation of the HAT (or equivalent) position. HATs (or equivalent) were presented as a crucial role that needs to be broadened and supported, with the potential to fulfill the professional development needs of many teachers. Its contribution was presented as being distinctively different from that provided by school Deputy or Assistant Principal positions.

Implication 7.4: is related to 7.3 above. This implication concerns the need for more expansive opportunities for teachers to develop and be formally recognised through accreditation at higher levels as possessing particular pedagogical knowledge and/or skills. The HAT (or equivalent) is just one possible position within existing organisational structures that rewards teachers and allows them to both develop individually and share such accumulated knowledge/expertise. A number of HATs (or equivalent) indicated that they did not aspire to leave the classroom to seek traditional promotional pathways. Instead, they expressed the desire to see the possibilities of different openings for them to become recognised leaders in curriculum and other teaching fields.

Implication 7.5: is related to whether schools will be able to sustain their ITQ NP initiatives once the funding ceases. A possible implication here is that systems and schools might profit best from the ITQ NP experience by considering one or more of the following courses of action:

- ways of retaining or extending HAT (or equivalent) roles in schools;
- appointing personnel who have performed the role of HAT (or equivalent) to assist non-C4E schools in developing local school initiatives of their own; and/or
- encouraging schools to develop local school partnerships and co-operative projects within the confines of their own school budgets in order to benefit from economies of scale.

13.5 Concluding Remarks

What can be generalised succinctly from the data sets across the varied contexts of this Evaluation? The similarities and differences that can be drawn across the C4E contexts amount to three considerations. The first concerns the pivotal role of the HAT (or equivalent). The second encompasses the importance of developing effective relationships between personnel within and across school networks, which include the wider school community as well as universities. The third affirms differences, and relates to the importance of identifying relevant contextual needs as the basis for developing strategies that support whole-school improvements. Each is addressed briefly below.

First, the C4E initiative with a school-wide focus on professional learning for teachers had a positive impact on teachers, and student engagement and performance, with judgments coming from a range of data sources. Also, sophisticated and ongoing teacher reflection on pedagogy and how improvement can validly be measured could be seen as a central outcome of the C4E. At the centre of these enhancements were HATs (or equivalent) providing instructional leadership.

HATs (or equivalent) were given time to work with colleagues, preservice teachers and other relevant stakeholders. They were also given time to carry out their work, their processes, in a developmentally appropriate way, i.e., over an extended time period, as opposed to more traditional 'one-off' activities.

The impacts of the HAT (or equivalent) role on the teaching and learning practices within schools are well documented in this Report. By taking a leadership role in mentoring their impact improved professional experience for preservice teachers, inductions for beginning teachers and professional development for teachers generally within and across schools.

The second consideration concerns the importance of developing effective relationships. Levels at which relationships operated within the ITQ NP included:

- Principal-HAT (or equivalent);
- school Executive-HAT (or equivalent);
- HAT (or equivalent)-school;
- HAT (or equivalent)-paraprofessional;
- paraprofessional-school community;
- lead-partner (hub-spoke) school;
- network; and
- HAT (or equivalent)-university.

None of these relationships operated in isolation, and lack of reciprocity in one had the potential to impact on overall school and/or network effectiveness. Thus, for example, the relationship between senior management in a school and the HAT (or equivalent) was regarded as a pivotal one in the implementation of ITQ NP initiatives. The instance of a Principal arriving at a school after the establishment of an ITQ NP program, and where there was a lack of alignment between the professional learning focus of the Principal and the HAT (or equivalent), resulted in the subsequent status of whole-school improvement becoming fragile.

The third consideration is an affirmation of differences, and relates to the importance of identifying relevant contextual needs as the basis for developing strategies that support whole-school improvements. For example, a recently established regional school with a high proportion of New Scheme Teachers, a high proportion of Early Career Teachers, and a high ATSI population had different professional learning foci compared with a well-established metropolitan school with a clearly defined whole-school professional learning program, strong partner school links, and an experienced staff. The opportunity to collaborate through the ITQ NP program, using professional accreditation as an initial focus, provided mutually advantageous benefits related to staff professional growth and student engagement across both contexts.

Elsewhere, in two separate networks of regional schools, the development of an online learning management system/virtual faculty provided the catalyst for enhanced professional learning and student engagement across the network. And, in a single metropolitan school, the adoption of the Quality Teaching Framework provided the structure that promoted opportunities for whole-school collaborative reflection on practice along with mentoring and peer coaching.

In conclusion, the most significant finding from this Evaluation is that long-term employment of instructional leaders in schools would be a positive influence on the goals of the *National Partnership Agreement on Improving Teacher Quality* (COAG, 2009) and *Great Teaching, Inspired Learning: A Blueprint for Action* (NSW DEC, 2013). Because of its whole-school, teaching and learning focus, the HAT (or equivalent) role emerged as the major quality assurance mechanism in the development of effective relationships and the management of a school's, or network's, core improvement agenda.

References

- Aaronson, D., Barrow, L., & Sander, W. (2007). Teachers and student achievement in the Chicago public high schools, *Journal of Labor Economics*, 25(1), 95-135.
- Accomplished California Teachers (2010). *A quality teacher in every classroom: Creating a teacher evaluation system that works for California*, Stanford, CA.: National Board Resource Center.
- Adams, R.J. & Toon, S. (1996). *QUEST The Interactive Test Analysis System*. Melbourne: ACER.
- Alton-Lee, A. (2003). Quality teaching for diverse students in schooling: Best evidence synthesis - what role this kind of work can and can't take in building teaching quality?, Proceedings of Australian Council for Educational Research (ACER) Conference, *Building teacher quality*, 24-27.
- ARTD Consultants (2012). *Analysis of the NSW Smarter Schools National Partnerships Cross-Sectoral Impact Survey: Phase 1 Report*, ARTD Pty Ltd, Sydney, Australia
- ARTD Consultants (2013). *Analysis of the Cross-Sectoral Impact Survey Wave 2 2012 Report*, ARTD Pty Ltd, Sydney, Australia.
- Association for Teacher Education in Europe (ATEE) (2006). The quality of teachers: Recommendations on the development of indicators to identify teacher quality. Policy paper, October.
- Auguste, B., Kihn, P., & Miller, M. (2010). *Closing the talent gap: Attracting and retaining top-third graduates to careers in teaching: An international and market research-based perspective*. McKinsey & Company.
- Australian Curriculum, Assessment and Reporting Authority (2013). *National Report on Schooling in Australia 2011*. Sydney: ACARA.
- Australian Council for Educational Research. (2012). *National school improvement tool*. State of Queensland (Department of Education, Training and Employment) and the Australian Council for Educational Research. <http://www.acer.edu.au/files/NSIT.pdf>
- Australian Council of Deans (ACDE) (2004). *New teaching, new learning: A vision for Australian education*, Canberra: ACDE.
- Australian Government Department of Education (2014). Terms of Reference: Ministerial Advisory Group: <http://www.studentsfirst.gov.au/terms-reference>
- Australian Institute for Teaching and School Leadership. (2011a). *Accreditation of initial teacher education programs in Australia: Standards and procedures*. Carlton South, Vic.: Education Services Australia.
- Australian Institute for Teaching and School Leadership. (2011b). *Australian professional standards for teachers*. Carlton South, Vic.: Education Services Australia.
- Australian Institute for Teaching and School Leadership (2012). *Certification of Highly Accomplished and Lead teachers in Australia*. Carlton South: Education Services Australia.

- Australian Qualifications Framework Council. (2013). *Australian Qualifications Framework* (2nd ed.). South Australia: Australian Qualifications Framework Council.
- Ayres, P., Dinham, S., & Sawyer, W. (2000). *Successful senior secondary teaching* Quality teaching series, #1, Deakin, ACT: Australian College of Education
- Ayres, P., Sawyer, W., & Dinham, S. (2004). Effective teaching in the context of a Grade 12 high stakes external examination in New South Wales, Australia, *British Educational Research Journal*, 30(1), 142-165.
- Baxter, D. & Sawyer, W. (2006). Whole-school literacy success against the odds, *Literacy learning: The middle years*. 14(2), 9-17.
- Beck, C., & Kosnik, C. (2002). Components of a good practicum placement: Student teacher perceptions. *Teacher Education Quarterly*, 29(2), 81-98.
- Berliner, D. (2005). The near impossibility of testing for teacher quality, *Journal of Teacher Education*, 56(3), 205-213.
- Berliner, D. (2012). Confusing assessment with testing and quantification: The overzealous promotion of value-added assessment of teachers. Paper delivered to Australian Association for Educational research conference, December.
- Boucher, S. & McRae, D. (2001). What is good teacher professional development? in Commonwealth Department of Employment, Training and Youth Affairs (DETYA) *Proceedings of the national conference on quality teaching: Improvement or transformation?*, 46-48.
- Centre for Assessment and Evaluation of Student Learning (CAESL) (2004). Using student tests to measure teacher quality, Assessment brief, San Francisco: Centre for Assessment and Evaluation of Student Learning.
- Cheng, E. C. K. (2012). *Enhancing the quality of Preservice teachers' learning in teaching practicum*. Paper presented at the CKI Conference.
- Choppin, B. (1983). *The Rasch model for item analysis*. CSE Report No.219. Los Angeles: Center for the Study of Evaluation, University of California. Downloaded from <https://www.cse.ucla.edu/products/reports/R219.pdf>
- Creemers, B. (1996). The school effectiveness knowledge base, in D. Reynolds, R. Bollen, B. Creemers, D. Hopkins, L. Stoll & N. Lagerweij (eds) *Making good schools*, London: Routledge.
- Commonwealth Department of Employment, Training and Youth Affairs (DETYA) (2001). *Proceedings of the national conference on quality teaching: Improvement or transformation?*
- Commonwealth of Australia. (2013). *National Plan for School Improvement*. ISBN 978 0 642 74901-7.
- Council of Australian Governments. (2009). *National partnership agreement on improving teacher quality*. Canberra: COAG.

- Darling-Hammond, L. (2000). Teacher quality and student achievement, *Education Policy Analysis Archives*, 14(1), 162-183.
- Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs*, San Francisco: Jossey-Bass.
- Darling-Hammond, L. (2007). *Recognizing and enhancing teacher effectiveness: A policymaker's guide*. Washington, DC: Council of Chief State Schools Officers.
- Darling-Hammond, L. (2010). *The flat world and education, How America's commitment to equity will determine our future*. New York and London: Teachers College Press.
- Dinham, S. (2002). NSW Quality Teaching Awards – Research, rigour and transparency, *Unicorn*, 28(1), 5-9.
- Dinham, S., Ingvarson, L., & Kleinhenz, E. (2008). Investing in teacher quality: Doing what matters most, in Business Council of Australia, *Teaching talent: The best teachers for Australia's classrooms*, Melbourne: Business Council of Australia.
- Dinham, S. & Sawyer, W. (2004). Mobility and highly effective teachers: Re-visiting beliefs about 'over-stayers', *Melbourne Studies in Education*, 45(2), 83-97.
- Donabedian, A. (1966). Evaluating the quality of medical care. *The Milbank Memorial Fund Quarterly*, 44 (3), 166-206.
- Donabedian, A. (1988). The quality of care. How can it be assessed? *Archives of Pathology and Laboratory Medicine*, 260(12) 1743-1748.
- Edmonds, R.R., (1979). Some schools work and more can. *Social Policy*. 9(5), 28-32.
- Erebus International (2005). *Review of the literature on socio-economic status and learning: Report to the NSW Department of Education and Training*, Darlinghurst: NSW Department of Education and Training.
- Fair Go Project Team (2006). *School is for me: Pathways to student engagement*, Sydney: Priority Schools Programs, NSW Department of Education and Training.
- Fitzpatrick, J. J. (2014). Quality and safety in nursing education. *Nursing Education Perspectives*, 35(4), 211.
- Fouts, J. (2003). *A decade of reform: A summary of research findings on classroom, school, and district effectiveness in Washington State*, Lynnwood, WA: Washington School Research Center.
- Fullan, M. (2005). The meaning of educational change: A quarter of a century of learning. In A Lieberman (Ed.), *The roots of educational change: International handbook of educational change* (pp. 202-216). Dordrecht: Springer.
- Fullan, M. (2007). Change theory as a force for school improvement. In J. M. Burger, C. F. Weber & P. Klinck (Eds.), *Intelligent leadership* (pp. 27-39). Dordrecht: Springer.
- Fullan, M. (2009). Large-scale reform comes of age. *Journal of Educational Change*, 10(2-3), 101-113.

- Gallagher, H.A. (2002). The relationship between measures of teacher quality and student achievement: The case of Vaughn Elementary, *Working Papers, Consortium for policy research in education*. Paper prepared for the annual meeting of the American Educational Research Association, New Orleans, Louisiana
- Gardner, G., Gardner, A., & O'Connell, J. (2013). Using the Donabedian Framework to Examine the Quality and Safety of Nursing Service Innovation. *Journal of Clinical Nursing, 23*(1-2), 145-155.
- Goe, L.G. (2007). *The link between teacher quality and student outcomes: A research synthesis*, Washington: National Comprehensive Center for Teacher Quality.
- Goldhaber, D. & Anthony, E. (2005). *Indicators of teacher quality*. ERIC Digest ED 478408. New York: ERIC Clearinghouse on Urban Education.
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis, 11*(3), 225-274.
- Haberman, M. (1995). *Star teachers of children in poverty*, Indianapolis: Kappa Delta Pi.
- Haberman, M. (2005). *Star teachers: The ideology and best practice of effective teachers of diverse children and youth in poverty*, Houston: The Haberman Educational Foundation.
- Hanushek, E.A. (2004). *Some simple analytics of school quality*, NBER Working Paper 10229, Cambridge, Mass: National Bureau of Economic Research.
- Hattie, J. (2003). Teachers make a difference: What is the research evidence? Paper presented at the Australian Association for Research in Education Annual Conference, Auckland, November-December. Available http://www.acer.edu.au/documents/RC2003_Hattie_TeachersMakeADifference.pdf
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Oxford: Routledge.
- Hayes, D., Mills, M., Christie, P., & Lingard, B. (2006). *Teachers and schooling: Making a difference*. Crows Nest: Allen & Unwin
- Heck, R.H. (2009). Teacher effectiveness and student achievement: Investigating a multilevel cross-classified model, *Journal of Educational Administration, 47*(2), 227-249.
- Holmes-Smith, P. 2006, *Socio-economic density and its effect on school performance*. Available at http://www.mceetya.edu.au/verve/_resources/SES_Report.pdf
- Hurst, D. (2014). Teacher training: Christopher Pyne rejects calls for a higher ATAR cut-off, *The Guardian*: <http://www.theguardian.com/world/2014/feb/19/pyne-rejects-higher-atar-student-teachers>
- Jensen, B. (2010a). *Measuring what matters: Student progress*. Melbourne: Grattan Institute.
- Jensen, B. (2010b). *What teachers want: Better teacher management*, Melbourne: Grattan Institute.
- Jensen, B. (2012). *Catching up: Learning from the best school systems in East Asia*, Melbourne: Grattan Institute.

- Jensen, B. & Reichl, J. (2011). *Better teacher appraisal and feedback: Improving performance*, Melbourne: Grattan Institute.
- Koppich, J.E. (2004). *Using student tests to measure teacher quality*, *Assessment Brief 9*, San Francisco: Centre for Assessment and Evaluation of Student Learning, January.
- Kravits, K., McAllister, R., Grant, M., & Kirk, C. (2010). Self-care strategies for nurses: A psycho-educational intervention for stress reduction and the prevention of burnout. *Applied Nursing Research*, 23(3), 130-138.
- Kunkel, S., Rosenqvist, U., & Ragnar, W. (2007). The structure of quality systems is important to the process and outcome: An empirical Study of 386 hospital departments in Sweden. *BMC Health Services Research*, 7, 104-115.
- Le Cornu, R., & Ewing, R. (2008). Reconceptualising professional experiences in Preservice teacher education ... reconstructing the past to embrace the future. *Teaching and Teacher Education*, 24(7), 1799-1812.
- Leigh, A. (2010). Estimating teacher effectiveness from two-year changes in students' test scores, *Economics of Education Review*, 29, 480-488.
- Leigh, A. & Mead, S. (2005). Lifting teacher performance, *Progressive Policy Institute policy report*, April. Available at: www.ppionline.org
- Lingard, B., Ladwig, J., Mills, M., Bahr, M., Chant, D., Warry, M., Allwood, J., Capeness, R., Christie, P., Gore, J., Hayes, D., & Luke, A. (2000). *The Queensland school reform longitudinal study*, Brisbane: Education Queensland.
- Luke, A. (2004). Teaching after the market: From commodity to cosmopolitan, *Teachers College Record*, 106(7), 1422-1443.
- Martin, A. J. (2002). Motivation and academic resilience: Developing a model of student enhancement, *Australian Journal of Education*, 46(1), 88-106.
- Masters, G. (2012). *National school improvement tool*. Australian Council for Educational Research, http://research.acer.edu.au/tll_misc/18.
- Masters, G.N. (1982). A Rasch model for partial credit scoring. *Psychometrika*, 47, 149-174.
- MET Project (2012). *Gathering feedback for teaching: Combining high-quality observations with student surveys and achievement gains*, Bill and Melinda Gates Foundation.
- Ministerial Council on Education, Employment, Training and Youth Affairs. (2008). *Melbourne Declaration on Educational Goals for Young Australians*. Melbourne: Curriculum Corporation.
- Mourshed, M., Chijioke, C., & Barber, M. (2010). *How the world's most improved school systems keep getting better*, London: McKinsey and Company.
- Munns, G. (2007). A sense of wonder: Pedagogies to engage students who live in poverty, *International Journal of Inclusive Education*, 11(3), 301-315.

- Munns, G., Arthur, L., Hertzberg, M., Sawyer, W., & Zammit, K. (2011). A fair go for low SES students, in T. Wrigley, P. Thomson, & R. Lingard (eds) *Changing schools: Alternative ways to make a world of difference*, London: Routledge.
- Munns, G., Sawyer, W., Cole, B., & Fair Go Team (2013). *Exemplary teachers of students in poverty*, London & New York: Routledge.
- Munns, G., Zammit, K., & Woodward, H. (2008). Reflections from the riot zone: The Fair Go Project and student engagement in a besieged community, *Journal of Children and Poverty*, 14(2), 157-171.
- National Council on Teacher Quality (2011). *State of the states: Trends and early lessons on teacher evaluation and effectiveness policies*, Washington: National Council on Teacher Quality.
- Newmann, F. & Associates (1996). *Authentic achievement: Restructuring schools for intellectual quality*, San Francisco: Jossey Bass.
- New South Wales Department of Education and Training (NSWDET) (2003). *Quality teaching in NSW public schools: Discussion paper*. Sydney, New South Wales Department of Education and Training Professional Support and Curriculum Directorate. Available at: https://www.det.nsw.edu.au/proflearn/docs/pdf/qt_EPSColor.pdf
- New South Wales Smarter Schools Partnership (2010). *Improving teacher quality national partnership* Available at: <http://www.nationalpartnerships.nsw.edu.au/improving-teacher-quality.php>
- NSW Department of Education and Communities. (2011). *Local schools, local decisions*. Sydney: NSW DEC.
- NSW Department of Education and Communities. (2013). *Great teaching, inspired learning: A Blueprint for Action*. Available at: http://www.schools.nsw.edu.au/media/downloads/news/greatteaching/gtil_blueprint.pdf
- NSW Department of Education and Training (2010) *Employment of paraprofessional in NSW government schools guidelines*. Sydney: New South Wales Education and Training. <http://www.nationalpartnerships.nsw.edu.au/resources/documents/ITQ-Paraprofessionals-Guidelines-Nov2010.pdf>
- NSWIT. (2005). *Professional teaching standards*. Sydney: New South Wales Institute of Teachers.
- NSWIT. (2007). *Initial teacher education programs supplementary documentation for program approval (Mandatory areas)*. Sydney: New South Wales Institute of Teachers.
- Nye, B., Konstantopoulos, S., & Hedges, L.V. (2004). How large are teacher effects?, *Educational Research*, 26(3) 237-257.
- Organisation for Economic Co-operation and Development (OECD) (2005). *Attracting, developing and retaining effective teachers – Final report: Teachers matter*, Paris: OECD Publishing.
- Organisation for Economic Co-operation and Development (OECD) (2009). *Creating effective teaching and learning environment: First results from TALIS*, Paris: OECD Publishing.

- Organisation for Economic Co-operation and Development (OECD) (2010a). *PISA 2009 results: Overcoming social background – Equity in learning opportunities and outcomes* (Volume II), Paris: OECD Publishing.
- Organisation for Economic Co-operation and Development (OECD) (2010b). *PISA 2009 results: What makes a school successful? Resources, policies and practices* (Volume IV), Paris: OECD Publishing.
- Pegg, J., Baxter, D., Dickson, S., Graham, L., Panizzon, D., & Parnell, A. (2006). *Final report on the validation of the NSW Professional Teaching Standards*. Report submitted to the NSW Institute of Teachers, March 2006. The University of New England, Armidale, Volume 1–Validation Report (pp. 129) and Volume 2–Appendices (pp. 234).
- Pegg, J., McPhan, G., & Mowbray, B. (2010). *Final Report on the Validation of the National Professional Teaching Standards*. Report submitted to the Australian Institute for Teaching and School Leadership, December 2010.
- Pegg, J., Lynch, T., & Panizzon, D. (2007). *Exceptional outcomes in mathematics education: Findings from AESOP*. Teneriffe: Post Pressed.
- Perry, L.B. (2008). Using PISA to examine educational inequality, *Orbis Scholae*, 2(2), 77-86.
- Peters, K., Mueller, B., Stoller, N., & Gupta, S. (2009). Structure-process-outcome quality measures. In R. Mullner (Ed), *Encyclopedia of health services research*, pp. 1102-1106. Thousand Oaks, CA: SAGE Publications, Inc.
- Presley, J. B., Bradford, R.W., & Gong, Y. (2005). Examining the distribution and impact of teacher quality in Illinois, *Illinois Education Research Council: Policy research report IERC 2005-2*.
- Radford, R. (2011). Balancing act: Theory and practice – and partnerships, *Inside Teaching*, 2(1) April, 14-21.
- Rasmussen, J. & Bayer, M. (2011). Comparative study of teaching content in teacher education programmes in Canada, Denmark, Finland and Singapore, in E. Eisenschmidt & E. Lofstrom, *Developing quality cultures in teacher education: Expanding horizons in relation to quality assurance*, Tallin: Tallin University, 133-156.
- Reid, A. (2001). Initial teacher training, in Commonwealth Department of Employment, Training and Youth Affairs (DETYA) *Proceedings of the national conference on quality teaching: Improvement or transformation?*, 44-45.
- Rivzi, F. & Lingard, B. (2010). *Globalizing education policy*. Milton Park: Routledge.
- Robinson, D.I. (2009) Teacher quality as a factor of student achievement: How does the type of teacher certification correlate with student mathematics achievement?. Paper presented to Phi Delta Kappa International Summit on Quality Educator Recruitment and Retention.
- Rockoff, J.E. (2004). The impact of individual teachers on student achievement: Evidence from panel data, *American Economic Review*, 94, 247-252.
- Rowe, K. (2003). The importance of teacher quality as a key determinant of students' experience and outcomes of schooling, Proceedings of Australian Council for Educational Research (ACER) Conference, *Building teacher quality*, 15-23.

- Sahlberg, P. (2011). *Finnish lessons: What can the world learn from educational change in Finland?* New York: Teachers College Press.
- Sawyer, W., Brock, P., & Baxter, D. (2007). *Exceptional outcomes in English education: Findings from AESOP*. Teneriffe: Post Pressed.
- Schleicher, A. (2011). *Building a high-quality teaching profession: Lessons from around the world*, Paris: OECD Publishing.
- SiMERR National Research Centre, The University of Western Sydney & The Australian Catholic University. (2013). *Evaluation of the Impact of Selected Reforms – Improving Teacher Quality National Partnership Progress Report Number 2*, <http://www.cese.nsw.gov.au/images/stories/PDF/SSNP/ITQ%20Evaluation%20-%20Progress%20Report%202.pdf>
- Siraj-Blatchford, I. & Sylva, K. (2004). Researching pedagogy in English preschools, *British Educational Research Journal*, 30(5), 713-730.
- Stewart, V. (2011). *Improving teacher quality around the world: The international summit on the teaching profession*, Asia Society Partnership for Global Learning.
- Tashakkori, A., & Teddlie, C. (Eds.). (2010). *SAGE handbook of mixed methods in social & behavioral research*. SAGE.
- Tovey, J. & McNeilage, A. (2013, March 12). Piccoli firm over teaching benchmark, *The Sydney Morning Herald*: <http://www.smh.com.au/nsw/piccoli-firm-over-teaching-benchmark-20130311-2fwcu.html>
- Ulvik, M., & Smith, K. (2011). What characterises a good practicum in teacher education. *Education Inquiry*, 2(3), 517-536.
- Ver, D.J. et al. (2006). *Final report on the validation of the NSW Professional Teaching Standards*. Armidale, NSW: SiMERR National Research Centre.
- Wang, J., Odell, S. J., & Schwille, S. A. (2008). Effects of teacher induction on beginning teachers' teaching: A critical review of the literature. *Journal of Teacher Education*, 59(2), 132-152.
- Watson, L. (2005). *Quality teaching and school leadership: A scan of research findings – Final report*, University of Canberra: Lifelong Learning Network.
- Zammit, K., Sinclair, C., Cole, B., Singh, M., Costley, D., Brown a'Court, L., & Rushton, K. (2007). *Teaching and leading for quality Australian schools: A review and synthesis of research-based knowledge*, Canberra: Teaching Australia.