COMPANIONS ON THE JOURNEY:

AN EXPLORATION OF THE VALUE OF COMMUNITIES OF PRACTICE FOR THE PROFESSIONAL LEARNING OF EARLY CAREER SECONDARY TEACHERS IN AUSTRALIA

A thesis submitted by

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Abstract

This study investigates the value that early career secondary teachers (ECSTs) in Australia might gain in their professional learning from belonging to a Community of Practice. In particular, it considers whether their self-efficacy, professional identity and social connection might be developed from belonging to these collaborative groups. The study was, in part, motivated by the recent statistics of the *Initial Teacher Education: Data Report 2017*[1] (AITSL, 2017c) that 15% of ECSTs in Australia consider permanently leaving the teaching profession within their first five years of teaching, whilst only 65% of graduating teachers (in 2015) attained a full-time ongoing position. The researcher has endeavoured, through her research and a review of literature, to determine the reasons behind these disturbing statistics and to generate possibilities for addressing these important issues. The conceptual framework of this research is based on an understanding of Communities of Practice as a quintessential type of Social Learning Space. Other Social Learning Spaces that this research considers are networks, such as the relatively recent phenomenon of TeachMeet, a "grassroots" form of gathering, organised by teachers for teachers and online networks such as private Facebook groups and Twitter Personal Learning Networks (PLNs). The Value Creation Framework of Wenger, Trayner and de Laat (2011) has been adapted for use in these new contexts. A constructivist paradigm was used to design the research and a mixed methodology was employed as the most appropriate method to capture the breadth and depth of the ECST experience. This included a questionnaire, focus groups and semi-structured interviews, which arose from a sample of participants drawn from the questionnaire. The data were analysed both quantitatively and qualitatively.

[1] The Initial Teacher Education: Data Report 2017 presents a wide range of new data and analysis. The report includes a comparison of six-year completion and attrition outcomes in Initial Teacher Education (ITE) institutions compared to other higher education programs; an analysis of multiple demographic factors affecting completion in ITEs; 'overall' and 'full-time' employment rates are presented for recent ITE graduates who studied at the undergraduate and postgraduate levels; and there are new data on the induction experiences and career intentions of early career teachers.

Three key results emerged from this study, adding new knowledge to an understanding of how early career teachers can be supported through Communities of Practice. The first was that ECSTs in schools where there is high human, social and decisional capital within the staff and who work collaboratively to improve student outcomes through Communities of Practice, are in a superior position to those who do not. They have the opportunity, over time, to develop sustained self-efficacy, a strong professional identity and broad social connection. The second finding was that those who do not necessarily belong to a school Community of Practice, can find the support they need to develop these qualities through participating in external networks such as TeachMeet and/or participating in online, private Facebook groups or Twitter PLNs. These latter groups became "virtual staff-rooms" offering particular support and professional learning particularly to casual relief teachers, those who were isolated in rural or remote areas and those who felt uncomfortable in their own school communities. The third and most significant of the findings was that those participants who belonged to both a school Community of Practice and one or more other Social Learning Spaces operated as brokers in a Landscape of Practice and were able to accelerate their professional learning more so than those who were in just one community. The original contribution of knowledge and understanding of the experiences of early career secondary teachers has significant implications for policy makers, Initial Teacher Education institutions and for secondary schools in ensuring that all ECSTs are given every opportunity to have a supported beginning to their teaching career and ongoing professional learning through collaborative structures within an overall culture of growth.

Certification of Thesis

This Thesis is entirely the work of Bernadette Mary Mercieca except where otherwise acknowledged. The work is original and has not previously been submitted for any other award, except where acknowledged.

Principal Supervisor: Dr Shirley Reushle
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Student and supervisors' signatures of endorsement are held at the University.

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List of Abbreviations

ACER	The Australian Council for Educational Research
AITSL	The Australian Institute for Teaching and School Leadership
ATL	Association of Teachers and Lecturers (UK)
CoP	Community of Practice
CRT	Casual Relief Teacher
ECT	Early Career Teacher
ECST	Early Career Secondary Teacher
EFA	Exploratory Factor Analysis
ESL	English as a Second Language
HECS	Higher Education Contribution Scheme
ICEA	Index of Community Socio-Educational Advantage
ICT	Information and Computer Technology
ITE	Initial Teacher Education
NAPLAN	National Assessment Program – Literacy and Numeracy
NQT	Newly Qualified Teacher (UK)
OECD	Organisation for Economic Co-operation and Development
PC	Principal Component
PD	Professional Development
PISA	Program for International Student Assessment
PLN	Personal Learning Network
PLT	Personal Learning Team
PLO	Position of Leadership
PCR	Principal Component Rotation
QUT	Queensland University of Technology
SAC	School Assessed Coursework
SEA	Socio-Educational Advantage
SES	Socio-Economic Status
SLS	Social Learning Space

STEM	Science, Technology, Engineering and Mathematics
TAFE	Technical and Further Education
TALIS	Teaching and Learning International Survey
USQ	University of Southern Queensland
VATE	Victorian Association of Teachers of English
VCAL	Victorian Certificate of Applied Learning
VCE	Victorian Certificate of Education
VIF	Variance Inflation Factors
VIT	Victorian Institute of Teaching

Chapter 1 Introduction

> *There were several roads nearby, but it did not take her long to find the one paved with yellow bricks. Within a short time, she was walking briskly towards the Emerald City, her silver shoes tinkling merrily on the hard, yellow roadbed. The sun shone bright and the birds sang sweetly, and Dorothy did not feel nearly as bad as you might think a little girl would who has been suddenly whisked away from her own country and set down in the midst of a strange land.* (Baum, 2015, p. 13)

It is indeed a strange and unfamiliar environment that early career secondary teachers (ECSTs) encounter when they exit the familiar and secure world of their Initial Teacher Education (ITE) institution and begin their first teaching positions, often in challenging and overwhelming school situations. *Reality shock* and *praxis shock* are the terms Dicke, Elling, Schmeck and Leutner (2015) and Veenman (1984) respectively use to describe how the idealistic hopes and dreams of ECSTs, nurtured throughout their ITE study, often suffer a severe blow when the day-to-day reality of the classroom sets in. For casual relief teachers[2], this experience can be particularly intense as they move through a variety of schools and sectors desperately trying to find employment. However, Dorothy in *The Wizard of Oz* (Baum, 2015), did not have to wait too long before she met three companions—the Lion, the Scarecrow and the Tin Man—who chose to walk with her and support and encourage her on their journey along the Yellow Brick Road to see the Wizard of Oz. In a somewhat similar way, this thesis aims to explore how ECSTs might be supported by the members of various Communities of Practice (CoPs) as they deal with the inevitable challenges that confront them. A Community of Practice is essentially “a group of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly” (Wenger-Trayner & Wenger-Trayner, 2017b, para. 1). These CoPs might be in an ECST’s school, but equally, they might be in

[2] Casual relief teachers (CRTs) are also known variously as emergency teachers or substitute teachers and supply teaching to primary and secondary schools for agreed lengths of time.

external groups such as Subject Associations[3] or a peer-supported group such as TeachMeet[4]. Online private Facebook groups[5] or Twitter Personal Learning Networks (PLNs)[6] might also provide the companions with whom ECSTs can share their practice and find the support that might not necessarily be available for them in the schools in which they work. In a 21st century environment, an ECST can potentially belong to a number of Social Learning Spaces (SLSs) which can be defined as, "social containers that enable genuine interactions among participants, who can bring to the learning table both their experience of practice and their experience of themselves in that practice" (Wenger, 2009, p. 3). The emphasis in this definition is on the word "social". Not all learning situations, such as lectures, direct instruction or professional reading are SLSs, even though they each may have their own value (Wenger, 2009). Rather, a two-way process of learning between "learning partners" is what is required to create a SLS (Wenger, 2009, p. 3). An understanding of social learning in the form of Social Learning Spaces underpins the ontological premise and the conceptual framework of this research.

Whilst the concept of a Community of Practice is described by Wenger (2009) as the "quintessential example of a Social Learning Space" (p. 3), other forms of SLSs, such as online ones, are known as *networks*. They are similar, in that they involve relationships, the sharing of knowledge, and regular to semi-regular interactions; however, members of a network do not specifically "steward a domain" over a sustained period of time in the same way that a CoP would do (Wenger-Trayner & Wenger-Trayner, 2017b, para. 3). The conceptual framework of this study

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[3] Subject Associations operate at a State level in Australia and play a key role in supporting teachers of different subjects through conferences, journals, websites and a range of resources.

[4] TeachMeet began in Australia in 2011 with one group and has since grown to have a presence in several states. TeachMeets involve teachers gathering outside of school hours and with educators from a variety of schools and sectors, to develop their practice and learn from each other. It is a "grass-roots" organization, that is open to all at no cost.

[5] Private Facebook groups operater through Facebook but prescribe particular protocols for belonging to the group and require participants to request membership.

[6] Twitter Personal Learning Networks involve educators making connections and building personal relationships with educators throughout the world. They involve sharing ideas and resources, collaboration and learning (Retrieved from https://teacherchallenge.edublogs.org/pln-challenge-1-what-the-heck-is-a-pln/)

involves both CoPs within school environments and networks beyond the school, including those through social media. CoPs within a school environment have evolved in different ways depending on the school. In this study, triads (3)—or a variety of slightly larger groups within a whole school or a whole school CoP when the school was very small (such as when a particular year level is located on a separate campus)—were the forms of CoPs that emerged in this study. These school examples are discussed in Chapters 5 and 6. Networks include teacher-driven groups, represented by TeachMeet and Subject Associations, which will also be discussed in Chapter 6. Educators gather in networks such as these to direct their own professional learning by engaging with other educators from different schools and sectors. A particular form of these type of gatherings are those of a virtual nature, including social media networks, such as private Facebook groups, online groups such as Teach/Tech/Play[7], Teach Connect[8] and Twitter PLNs. These are places where educators, from across the globe, connect online to share and learn from each other. Twitter PLNs involve educators following other educators of their choice. Private Facebook groups are set up with a closed membership and are generally for a particular purpose, such as a place for casual relief teachers to interact. Those who move between these different groups, whether they be face-to-face or online gatherings, sharing their learning are known as *brokers* (Wenger-Trayner, Wenger-Trayner, Fenton-O'Creevy, Hutchinson & Kubiak, 2014). These people operate on the boundaries of groups, bringing their learning from one group to another. This study explores what value ECSTs might gain from being a broker between one or more external network and their own CoP. The conceptual framework of Social Learning Spaces is illustrated in Figure 1.1.

[7]Teach/Tech/Play, based in Victoria, is designed by teachers for teachers. It is an online community inspiring learning through empowerment and connection. Annual conferences are also held.

[8] Teach Connect is an altruistic network of pre-service, current and experienced teachers across Queensland. It is free and owned by the teachers of Queensland.

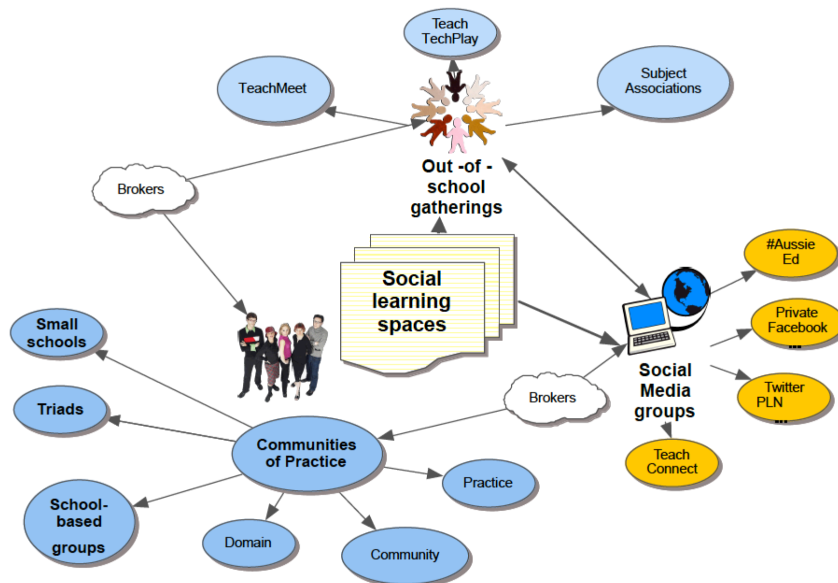

Figure 1.1. Social Learning Spaces

This introductory chapter outlines the rationale for beginning the study, background details on the schools and organisations involved and the philosophical approach of the methodology. Chapter 2 reviews current literature related to CoPs and professional learning in terms of teacher self-efficacy, professional identity and social connection. The third chapter includes a more detailed discussion of the constructivist ontology that underpins this study and the mixed methodology that was utilised. Chapter 4 examines the world of the early career secondary teacher, firstly through the broader lens of the quantitative data arising from the questionnaire, then through the more personally focused, qualitative findings arising out of the focus group and semi-structured interview data. In particular, the central problem that lies at the heart of this study, namely the disturbing attrition rates and lack of ongoing employment of early career teachers is addressed. Chapters 5 and 6 present the qualitative findings from this study through focusing on three exemplar communities (Chapter 5), followed by five different types of CoPs and networks (Chapter 6). Chapter 7 draws together the findings of this study related to the research questions, leading into Chapter 8 which provides recommendations arising from these findings and directions for future research.

For the purpose of this research, in line with McKenzie, Kos, Walker, Hong, and Owen (2014), *early career* refers to the first five years of a teacher's

professional career. Only secondary school teachers in Australian schools from these years of service of 2016 and 2017 were part of this study.

The structure of this chapter is displayed in Figure 1.2.

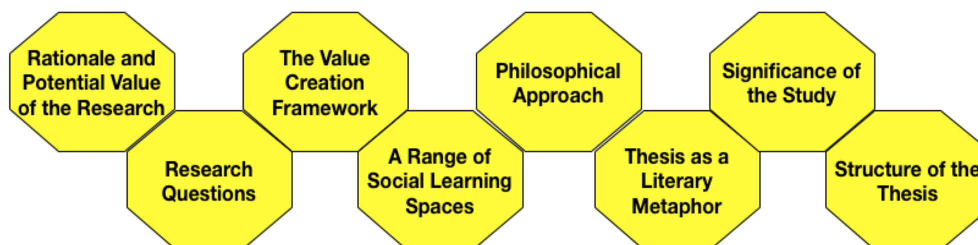

Figure 1.2 Outline of Chapter 1 Introduction

Rationale and Potential Value of the Research

This study was motivated by the issue of teacher attrition and the under-employment of graduate teachers. The most recent research on attrition rates, *Initial Teacher Education: Data Report 2017* (AITSL, 2017c[9]), based on a stake-holders' survey of early career teachers (both primary and secondary, *n* = 2,304) in 2016 in regard to their career intentions, found that 15% (*n* = 66) of the ECTs who responded were likely to leave classroom teaching within 1–5 years, whilst a further 22% (*n* = 98) were unsure (p. 102). These are disturbing figures and the implications of this for the teacher personally, their school and society are considerable. The transition from being a student in the relatively stable world of an ITE institution to being a secondary school teacher with full responsibility for a number of classes of students is a complex and demanding one. Just as Dorothy, bright-eyed and eager with her sparkling silver shoes, is confronted by the Wicked Witch of the East as she ventures forth into Oz, so too are ECSTs as they begin to encounter recalcitrant students, unrelenting workloads and demanding parents in their first few weeks in a school.

The first years of a teacher's career are crucial ones in establishing a professional identity, making connections at a number of different levels and dealing with a range of complex issues, both within the classroom and in the wider school

[9] AITSL— the Australian Institute for Teaching and School Leadership— is a government funded body supporting the delivering of quality education in Australia through robust research.

community. As the *Induction of Beginning Teachers in Australia—What do Early Career Teachers say*? (AITSL, 2017b) report highlights, graduate teachers are in a unique position, in that no other profession has such high expectations of its newest members, giving them full professional and legal responsibility from the first day of their employment. Similarly, Bahr and Mellor (2016) point to the lack of a "stratified and formal system of supervision" that exists for beginning doctors or lawyers, for example, but not for beginning teachers who are expected to perform in the same unsupervised way as those who have been teaching for many years (p. 38). The Hay Group (2014) expresses concern about the consequent poor retention rate of young teachers, particularly those with high potential, suggesting that a possible reason for this is the high expectations many graduate teachers have of themselves:

> The transition from graduate to effective teacher may simply be insurmountable, as they feel that they cannot deliver a positive impact to students as they struggle to find their teaching feet with little support. (The Hay Group, 2014, p. 10)

These are the issues that have motivated this research, drawing on the researcher's experience in working with pre-service teachers at an ITE institution and early career secondary teachers in schools and adding incentive to find measures that will help to ease these problems.

The current casualisation of the teacher workforce in Australia also has implications for this study. Statistics reveal that 46% (n = 2,511) of undergraduates and 40% (n = 1,476) of postgraduates were unable to find full time ongoing work in schools in 2015 (AITSL, 2017c, p. 91). This has resulted in many graduate teachers finding that their only teaching alternative is to become a casual relief teacher. Whilst these teachers have become "an integral cog within the education system" without whom schools would find it very difficult to operate (Nicholas & Wells, 2016, p. 1), the ways they are marginalised in schools, and the support from which they are often excluded is evident in the research literature and data arising from this study. The Independent Education Union of Victoria and Tasmania (James, 2016) alludes to an ongoing struggle with schools that keep younger teachers on fixed-term contracts for extended periods of time, beyond most Teacher Award agreements. For the many ECSTs in either of these situations, there are implications for mentoring and induction, as well as their ongoing professional learning. Whilst previous

research has clearly established the problem of lack of support leading to early career teacher attrition (AITSL, 2017c; Buchanan, Prescott, Schuck, Aubusson, & Burke, 2013), few studies can be found providing detailed information about alternative support models for all ECSTs, including those on casual relief contracts. This is an important area of research, since even if induction programs and mentors have not deterred significant numbers of ECSTs from leaving the profession prematurely, there may be other ways in which they can be supported not just to survive, but to flourish in their new environments, sharing the skills they bring with them to enrich their chosen schools.

Research Questions

The overarching question that this research asks then is: *Can Communities of Practice add value to the professional learning of early career secondary teachers in Australia?* In particular, it asks how these CoPs might add value to what ECSTs experience in terms of their self-efficacy, professional identity and social connection as they transition from the relatively safe confines of their pre-service courses and institutions to the significantly more challenging and complex world of a secondary school. As well as exploring more formal CoPs in school situations, this research secondly considers whether relatively new Social Learning Spaces, such as the teacher-driven TeachMeet networks and social media outlets, including online private Facebook groups, Teach/Tech/Play, Teach Connect and Twitter PLNs could also provide this sort of support and add value to the professional learning experience of ECSTs. These are relatively new phenomena on the professional learning scene that have mushroomed in recent years and the impact they are having on ECSTs has yet to be fully explored. Whilst the use of social media sites such as Facebook in supporting young teachers has been well documented (Goodyear, Casey, & Kirk, 2014; Kelly & Antonio, 2016), the particular ways in which these teachers use and gain support from these avenues has been less well researched. Finally, this research attempts to move into new territory in considering how jointly participating in these groups, as well as in a CoP at their school, could add particular value to the professional learning of ECSTs. This research will attempt to address these gaps by recording the voices of new teachers who have been involved in these communities. More specifically, the sub-questions of this study are as follows:

- What value can involvement in a school Community of Practice add to the professional learning experiences of early career secondary teachers in Australia in terms of their self-efficacy, professional identity and social connection?
- What value can involvement in external Social Learning Spaces such as TeachMeet, Subject Associations and social media sites, such as private Facebook groups, Teach Connect and Twitter PLNs, add to the professional learning experiences of early career secondary teachers in Australia in terms of their self-efficacy, professional identity and social connection?
- What value can dual involvement in a school Community of Practice and one or more external Social Learning Spaces add to the professional learning experiences of early career secondary teachers in Australia in terms of their self-efficacy, professional identity and social connection?

The Value Creation Framework of Wenger, Trayner and de Laat (2011) has been adapted to evaluate the nature and degree of this value.

The Value Creation Framework

The idea of a Community of Practice has been popularised by Wenger (1998), initially in the context of organisational and knowledge management, but more recently in the field of education. Lave and Wenger (1991) were influential in developing an understanding of how learning for adults occurs, not so much through the traditional teacher/pupil relationship, but through deepening involvement in a CoP, where participants share a common domain, experience a sense of community and develop a shared practice. Although there is a growing body of research as to the value of such collaborative models of interaction generally, and in higher education (McDonald & Cox, 2017), research that is specifically related to secondary schools in Australia has been limited. Further, the number of Australian secondary schools which have successfully taken up the challenge of developing a collaborative culture for their teachers in a sustained and informed way is still far from universal (Hargreaves & Fullan, 2012; Fullan & Quinn, 2016), pointing towards the need for a more systematic analysis about what works, which this research aims to provide.

This research uses the Value Creation Framework developed by Wenger et al. (2011). They define *Value Creation* as "the value of the learning enabled by

community involvement and networking" (p. 8). The Framework has been designed to provide a rigorous foundation for the work of researchers, based on data that were collected over a number of years in a range of communities internationally and which draws on Wenger's (1998) previous work on Communities of Practice. Central to the Framework is the understanding that value can be created within communities through a series of cycles:

- Cycle 1: Immediate Value
- Cycle 2: Potential Value
- Cycle 3: Applied Value
- Cycle 4: Realised Value
- Cycle 5: Reframing Value.

Cycle 1 is the most basic level of Value Creation and includes what might be called "just in time" learning. It refers to the activities and interactions that members have when they engage with their community. These have value in and of themselves, as an experience of learning together. Wenger et al. (2011) suggest that activities such as assisting another colleague or hearing a good idea have intrinsic value, allowing participants to learn from each other and be inspired to think in new ways.

Cycle 2 relates to Knowledge Capital and is the value that is not immediately realised, but develops over time, awakening a sense of professional identity in a person as they build relationships, make connections, access resources and see modelled new forms of learning. It includes what the learning of the community produces, its observable output or reification—such as physical artefacts, documents or videos— and personal knowledge, insights, skills, and advice. It may also include intangibles such as reputation, inspiration and relationships, in terms of social contacts that a teacher can turn to when a problem arises.

Cycle 3 involves a change in practice. Knowledge Capital is taken further by being put into practice, with ideas gained from the CoP being directly applied or modified to suit a particular context. For ECSTs, it may mean an increased sense of confidence and a chance to try out some of the tools and strategies that they might have heard about in a CoP in their classrooms. Wenger-Trayner et al. (2017b) suggest that this is a creative process, as ECSTs experiment with new ideas.

Cycle 4, Realised Value, is assessed by the extent to which involvement in a CoP has brought about improvement in a teacher's classroom practice and their overall self-efficacy. Realised Value also refers to the difference the community is able to make in the broader society. It may be the success of its members or of an organisation or the increase in performance of these institutions. A teacher might start to receive positive feedback from their Principal, students or the parent body.

Finally, Cycle 5 takes change to a broader level where impact can be observed in the entire school community or district. New strategic directions begin to emerge. The entire culture of a school community is revitalised.

Wenger et al. (2011) do not see these necessarily as hierarchical levels nor do they consider that a CoP needs to move through the full range of cycles in order to be considered successful. Nonetheless, they maintain that the cycles do provide a useful framework for researchers in assessing and measuring communities and individuals. This study has adapted this Framework and applied it to new fields of investigation in Australia to assess the value an ECST gains from belonging to a CoP or a network over a period of time and, in some examples, the value their school gains from supporting CoPs.

A Range of Social Learning Spaces

A variety of different types of Social Learning Spaces will be considered in Chapters 5 and 6, reflecting the many different ways teachers can be involved in collaborative groups in light of 21st century technological developments. In Chapter 5, detailed examples of the way ECSTs have participated in three exemplar school-based CoPs, one based in the city, one in a rural area and one in a remote location, will be analysed using the Value Creation Framework. Although these are clearly not the only examples of supportive schools in Australia, they do serve to highlight particular ways ECSTs can be supported. Chapter 6 follows with the stories of other ECSTs who have been involved in a variety of Social Learning Spaces such as triads or small groups in a school and the external communities of TeachMeet and Subject Associations. There are also reflections from those involved in various online networks, including private Facebook groups, Teach Connect and Twitter PLNs. Social networking technologies enable a teacher to connect with like-minded teachers in professional online communities that are not limited by geography or time and can provide a particular type of interactive support that might not be

available in an ECST's own school (Luehmann & Tinelli, 2008). Each of these Social Learning Spaces will be analysed using the Value Creation Framework of Wenger et al. (2011).

Philosophical Approach

This research utilises the constructivist paradigm of Guba and Lincoln (1985, 2013) which is characterised by a concern for the person, who is conceived of as intentional in their actions and who actively constructs their world (Cohen, Manion, & Morrison, 2007). As such, ontologically, it is based on an understanding that reality is socially constructed and involves multiple perspectives (Phillips, McNaught & Kennedy, 2012). A close examination of individuals and their interpretation of their experiences generates patterns and theories that are grounded in a particular context. Further discussion of the methodology is provided in Chapter 3.

Thesis as a Literary Metaphor

The idea of approaching a doctoral thesis as a text with literary features such as metaphors is a relatively new concept in academia. Kelly (2011), drawing on the work of Bump (1985), makes a case for this, arguing that drawing together elements from different domains allows for "'both/and' thinking and interdisciplinary thought" (Bump, 1985, p. 445). Kelly (2011) suggests that the strength of such an approach lies in its ability to make "conceptual links" for the reader: "Metaphor has the potential to enhance textual sociability and actively *bring* meanings and foster associations from 'outside' the immediate context of the research project" (p. 432). In regard to this thesis, the popular story of *The Wizard of Oz* (Baum, 2015) allows for a shared meaning between the writer and the reader. It is hoped that the setting, the characters, their relationships and the obstacles and challenges they experience as they travel down the Yellow Brick Road will help to elucidate the key findings of this research and add structural unity to the text overall.

Significance of the Study

The purpose of this study, with its primary emphasis on a qualitative methodology, is to listen closely to the voices of early career secondary teachers in Australia in order to understand the challenges they are dealing with in light of disturbing teacher attrition and under-employment statistics (AITSL, 2017c) and to

consider the ways various forms of Communities of Practice might support them. It provides a window into the lives of these early career secondary teachers who are often struggling with systemic issues such as the casualisation of the work force and limited job opportunities. The rich data that were derived from the semi-structured interviews and the focus groups highlights the contrast between those who were well supported in the schools that they entered and those who were not, to greater and lesser extents.

The study is significant at a number of levels. Firstly, it explores the value for early career secondary teachers that comes from schools where collaborative teacher gatherings are part of the overall structure of the school and are fully supported by the Principal. To some extent, such schools in Australia have not before had such focussed attention given to them. The exemplar schools are representative of what can be achieved when teacher development is at the heart of their enterprise, evidenced in high “human capital” —the quality of teachers— “social capital” — the quality of their interactions and “decisional capital” —the decisions they are able to make in complex situations (Fullan & Quinn, 2016, p. 54). Whilst they are clearly not the only schools where strong support is evident, they do present different lenses to show what can be achieved in city, rural and remote contexts and within different sectors and states of Australia. Whilst recognition of the positive impact of CoPs is gradually emerging in higher education (McDonald & Cox, 2017), there would appear to be less formal evaluation of their impact and application in the secondary education domain, a gap addressed in this study.

Secondly, this study explores how relatively new Social Learning Spaces, such as TeachMeet, private Facebook groups, Teach Connect and Twitter PLNs, can add particular value to an ECST’s experience. Whilst recent research has focused on the value of social media networks for ECSTs (Kelly & Antonio, 2016; Kelly, Ciara, Kehrwald, & Danaher, 2016), this is an area that would appear to need further exploration, particularly that which draws on the particular experiences of participants. In addition, there has been limited research on teacher-driven groups such as TeachMeet and Teach/Tech/Play which combine face–to–face gatherings/conferences with social media networks and the value that might come from those groups. This study makes an original contribution in this area.

Thirdly, as presented in Chapters 5 and 6, there were ECSTs who belonged to more than one CoP or network, such as external or online groups, as well as CoPs at

their own schools. Wenger-Trayner et al. (2014) would describe these teachers as *brokers* in a *Landscape of Practice*. How this influenced their professional learning and how this compared with those ECSTs who were just in one CoP will be explored as an original contribution to research.

Finally, this research takes a well-researched framework (Wenger et al., 2011) that has been designed for a wide audience, including business, industry and education and applies it in the very specific contexts of secondary education in Australia, teacher driven initiatives such as TeachMeet and Subject Associations and the social media sites of Facebook, Teach/Tech/Play, Teach Connect and Twitter PLNs. These are relatively unexplored applications of this framework.

Structure of the Thesis

This study exploring the value of Communities of Practice for the professional development of early career secondary teachers in Australia is outlined in Table 1.1.

Table 1.1.
Thesis structure

Chapter 1 Introduction	Chapter 1 provides an introduction to the research problem and the rationale for the design and implementation of the research.
Chapter 2 Review of Literature	In Chapter 2, the Review of Literature situates this study within the context of current research on the issues related to early career teachers, Communities of Practice and professional learning.
Chapter 3 Research Design and Implementation	In Chapter 3, the Research Design and philosophical underpinnings are described, as well as the methodology that was utilised and the particular ways that the data were collected and analysed.
Chapter 4 Negotiating Oz: The world of the early career teacher	In Chapter 4, the world of the early career teacher is explored through an analysis of both the quantitative and qualitative data that were collected.
Chapter 5 Three exemplar	Chapter 5 presents three exemplar communities and uses the Value Creation Framework (Wenger et al., 2011) to

communities	qualitatively analyse the value that ECSTs gained from belonging to these communities.
Chapter 6 Varieties of Learning Spaces	Chapter 6 considers varieties of Social Learning Spaces that exist in schools, outside of schools and through social media. Again, the Value Creation Framework is used to qualitatively analyse the value that ECSTs gained from belonging to these communities and networks.
Chapter 7 Discussion	Chapter 7 draws together the key findings.
Chapter 8 Conclusion	Chapter 8 makes recommendations arising out of these findings. Directions for future research are proposed.

Chapter 2 Review of Literature

> *You must walk. It is a long journey, through a country that is sometimes pleasant and sometimes dark and terrible.* (Baum, 2015, p. 11)

As Dorothy begins her journey into the Land of Oz, it is important that she takes note of the geography and key features of the landscape of her new environment if she is to have any chance of surviving in it. Similarly, this Review of Literature begins by examining salient features of the world of early career secondary teachers in order to understand their situation more fully. These include issues such as the casualisation of the teaching workforce, the stridently different demands of school environments compared with those at Initial Teacher Education (ITE) institutions and ongoing workload and student behaviour issues. However, not all is grim. Dorothy finds herself with an eclectic group of companions: the Scarecrow, the Lion and the Tin Man, who form a small, congenial community as they together travel along the Yellow Brick Road. Despite their stark personality differences, these companions provide indispensable support, friendship and encouragement for each other, especially in times of greatest need, as they are attacked from various sources along the way. This is the type of communal support that is at the heart of this study, which explores how Communities of Practice can add value to the experience of early career secondary teachers as they grapple with the many challenges that are likely to confront them in their first years of teaching. As such, both seminal and contemporary understandings of Communities of Practice and new 21st century forms of professional learning in networks, face-to-face, online and a blend of the two are examined in this Review of Literature. The Scarecrow, the Lion and the Tin Man are each searching for something that will make their life complete: a brain, courage and a heart. Somewhat similarly, this chapter also reviews contemporary research on the concepts of self-efficacy, professional identity and social connection and how they might add value to an early career secondary teacher's professional learning.

The chapter has five sections. The Introduction is followed by the section entitled Negotiating Oz, which outlines the research context—the

problem of teacher attrition and the reasons behind it, including the growing casualisation and under-employment of the workforce, the isolation and individualism of many schools and the reality of *praxis shock* for beginning teachers, regardless of whether they have casual or ongoing status. The third section, Companions on the Journey, provides a review of the theoretical underpinnings informing Communities of Practice (CoPs) and networks as examples of Social Learning Spaces, the conceptual framework that underlies this research. This, and the Value Creation Framework of Wenger et al. (2011), have informed the development of the research methodology of this study and its subsequent data analysis. The following section, A Landscape of Practice and Social Learning Spaces, discusses Wenger-Trayner et al.'s (2014) more recent understanding of the broader range of ways in which people engage in the mobile world of the 21st century. The following section, Professional Learning, reviews current understandings of professional learning and considers the concepts of professional capital and cultures of growth within school communities (Hargreaves & Fullan, 2013; Fullan & Quinn, 2016). More specifically, this section examines seminal and contemporary research on teacher self-efficacy, professional identity and social connection. Finally, the Summary and the Knowledge Gap concludes the chapter by considering what is under-represented or absent from research literature which has motivated this research. The structure of this chapter is outlined in Figure 2.1.

Figure 2.1 Outline of Chapter 2 Review of Literature.

Research Context—Negotiating Oz: The World of the Early Career Teacher

It is widely acknowledged in the research literature, both locally and internationally, that the needs of early career teachers are acute and that the challenges they face are remarkably similar across the globe (Ballantyne, 2007; Buchanan et al., 2013; Dicke et al., 2015; Weldon, 2016). These challenges include maintaining relationships with a diverse range of people, including students, other staff members and parents and learning how to effectively manage a classroom, with its attendant behaviour issues and learning demands. In addition, up to 37% of Years 7–10 teachers with one to two years of experience are teaching out-of-field subjects[10] compared with 25% of those with more than five years' experience, with higher figures for remote and low SES[11] areas (Weldon, 2016). Not only is this a less than desirable situation for student learning, but it is also potentially a significant cause of stress and preparation overload for ECSTs, alongside the other stresses they might face. From another perspective, Hobbs (2013) found that with appropriate support there could be opportunities for "boundary crossing" in terms of professional learning for ECSTs in such situations (p. 272). This will be seen with Participant 42 (P42) in Chapter 5 who reported that he was trained in Physical Education but ended up teaching English and Humanities at his school. However, he was fortunate to have the support of a very effective Community of Practice at his school which enabled him to make a success of this and extend his teaching skills. Not all ECSTs are so fortunate.

Further awareness of the world of ECSTs is provided by Clandinin et al. (2015) who, drawing on their research with a representative sample of 40 beginning teachers in Alberta, Canada, suggest that their challenges include being given little or no support, being overloaded with teaching commitments and having to deal with problematic student behaviour.

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[10] Out-of-field teaching is defined as teaching a subject for which teachers have not studied above first year at university, and for which they have not studied teaching methodology (Weldon, 2016).

[11] SES stands for Socio-Economic Status

However, they emphasise that it is important not to compartmentalise these reasons, but consider them within the context of the new teacher's whole life: "Starting with the person allows us to consider each teacher's personal support networks, mentorship, and contexts as unique in how each person is sustained" (p. 13). This aligns with Shanks, Robson and Gray (2012) in their research with newly qualified teachers (NQTs) in Scotland in regard to what they called "individual learning disposition" which encompasses an individual's attitude and motivation for learning (p. 184). They suggest that a "one-size-fits-all" model is no longer appropriate in the complex environments in which NQTs operate. Rather, what is needed is a variety of formal and informal learning opportunities through induction programs, mentors, observation and collaborative reflection with their peers and more experienced teachers over an extended period of time: "The challenge is to have the right-off-the-job learning (or theory) at the right time to complement the new teachers' learning on the job (practice)" (Shanks et al. p. 196). In light of this, Scottish beginning teachers have a 20% reduction in teaching time in their first year to allow for their professional learning (GTC, 2017).

The importance of considering individual differences in ECSTs is also seen in the data that were presented in Chapter 4. Clearly, not all ECSTs are young—an increasing number are mature-aged, with different needs to those only a few years out of school themselves. They are in the position of taking on a new professional identity after a number of years in another profession. Anthony and Ord (2008) suggest that being able to integrate their prior knowledge into their new role would appear to be a significant way of developing this new identity. However, the longitude case study research on mature ECSTs in Queensland, Australia by Watters and Diezmann (2013) found that if schools did not differentiate ECSTs from regular beginning teachers, then they were likely to be "disillusioned and leave the profession within three years" (p. 14). This has important implication for this study, given that approximately 25% of participants were over 30 years old. The support experienced or not experienced by mature-aged ECSTs is reflected in both the quantitative and qualitative findings of Chapter 4.

The importance of considering individual difference is also seen in the increasing numbers of ECSTs who have casual relief teaching positions. Casual relief teachers are in a significantly different position to those with longer contracts or ongoing positions. An Australian study, conducted by Bamberry (2011) with public school teachers in NSW, highlights the issue of casualisation, both forced and chosen, for an increasing number of graduate teachers and the attenuating challenges that this generates. The most significant of these challenges is a lack of security in employment, epitomised by one participant:

> As a casual you feel very insecure I suppose. The Principal at M, probably eight months after I was there, he said: 'Well, what do you think? Do you like the school? Do you feel at home?' And I said: 'Well, I feel as comfortable as I think a casual can feel . . . knowing that I am as disposable as the next tissue that comes out of the box'. (Bamberry, 2011, p. 58)

Related to this lack of security are a range of attendant factors that casual relief teachers face, including minimal control of the number and scheduling of work hours and being denied access to professional learning opportunities (Bamberry, 2011; Jenkins, Smith, & Maxwell, 2009; Nicholas & Wells, 2016). These realities are exacerbated by the fact that there is no consistent approach, at least in Australia, to the provision of quality induction or mentoring programs, particularly for casual relief teachers or for teachers beginning after the official start of the year (Kelly, Reushle, Chakrabarty, & Kinnane, 2014; AITSL, 2017c). According to the recent *Initial Teacher Education: Data Report 2017* (AITSL, 2017c), only 17% of casual relief teachers indicated that they were given a formal induction compared with 59% for those on permanent contracts and 44% on short term contracts. This contrasts with a number of European countries, such as Malta, that have been instrumental in setting up national formalised induction and mentoring programs for beginning teachers to ensure that all teachers, regardless of their status, are catered for (Tonna, Bjerkholt, Holland, 2017).

For both ongoing and casual ECSTs, there are common challenges which can be summed up by terms such as *praxis shock* (Veenman, 1984) and, more recently, *reality shock* (Dicke et al., 2015). These terms encompass what many ECSTs experience as they begin to apply their theoretical learning in the classroom, only to find that the realisation of their idealistic hopes, nurtured throughout their ITE study, is difficult to enact within the reality of the classroom. Veenman (1984) defines praxis shock as "the collapse of the missionary ideals formed during teacher training by the harsh and rude reality of everyday classroom life" (p. 143), whilst Dicke et al. (2015) see reality shock as "emotional exhaustion" (p. 1). Johnson et al. (2015a) highlight the more demanding classroom environments faced by teachers in recent decades that is a direct result of inclusive education policies, with ECSTs having to cope with "diverse and challenging needs", pressure to differentiate[12] lessons and potential behaviour issues (p. 10). Further, Ingersoll and Strong (2011) suggest that beginning teachers and, especially casual relief teachers, are often given the most demanding classes that no-one else wants and would go so far as to say that "teaching, as an occupation, cannibalizes its young" (p. 202).

In such a context, it is understandable that ECSTs would want to reach out for connection with other teachers with whom they can share ideas, receive feedback on their teaching and take their questions to (Burke, Aubusson, Schuck, Buchanan, & Prescott, 2015; Dean, Harden-Thew & Thomas, 2017). The research of Burke et al. (2015) with NSW early career teachers (ECTs) revealed that what they valued most was the expertise and collegial support of more experienced colleagues. Almost half of the ECTs in their study reported isolation from more experienced teachers, and even those who were involved in co-planning activities with them, sought deeper levels of collaboration, such as co-teaching and collaborative observation. They found that these results were accentuated for those in the study who intended to leave the profession, with 63% reporting that they had no opportunity to work with more experienced teachers. In reality, schools,

[12] Differentiating a lesson means adapting it to suit a range of different learners.

especially large secondary schools, can be lonely places where teachers can feel very isolated in their classrooms, as Nelson (2015) graphically describes:

> Closed door isolation: from each other, from ideas, from learning theory and educational policy as they've translated into real teaching and from ourselves as teachers as we try to learn. Over time, this deafening isolation dampens the imagination and initiative we brought with us as new teachers, and the silence amongst us grows. (Nelson, 2015, par.1)

Similarly, Hargreaves and Fullan (2013) refer to the isolation and individualism that is the norm in many schools, which cuts teachers off from helpful feedback and where they are afraid to admit difficulties because they might be perceived as being incompetent. This is similar to the idea from the corporate world and higher education, where teachers operate in "silos" in their own classroom and subject areas, with little interaction beyond these borders, "where divisions resist interdepartmental interactions, which can inhibit free-flowing communication" (Adamucci, 2017, para. 3). Such was the case with one of the Language teachers in this study who found the other Language teachers at her school to be very possessive, even combative, about sharing ideas and strategies, for fear she would poach their students. The idea of teacher collaboration is further reinforced by Palmer (2007):

> If we want to grow as teachers we must do something alien to academic culture: we must talk to each other about our inner lives—risky stuff in a profession that fears the personal and seeks safety in the technical, the distant, the abstract. (p. 505)

Hargreaves and Fullan (2013) stress the importance of high performing teams rather than isolated, individual efforts if teaching is to improve. In a similar vein, Garmston and Wellman (2016) suggest that, "A collection of superstar teachers cannot produce the results of interdependent colleagues who share and develop professional practices together" (p. 16). This is central to the conceptual focus of this study. Drawing from an evolutionary biology perspective, they argue that in the increasingly

complex and changing world of the 21st century, teachers must become "adaptive" in terms of "being able to change form in concert with clarifying identity" as opposed to "adapted" which is to have "evolved through specialization to fit specific conditions within tight boundaries" (Garmston & Wellman, p. 4). They challenge schools to let go of the security of their adapted practices and develop an adaptive approach to working effectively with the new generation of students who present to them. This is clearly demanding work for teachers, who have honed their style of teaching over many years, begging the question of whether it is better done within the supportive and non-judgemental collaborative structures of a CoP.

Finally, Timms, Graham, and Cottrell (2007) point to the high expectations schools have of teachers, including their compulsory participation in out of school/co-curricular activities, which arose as a particular issue in the Independent and Catholic schools in this study, and dealing with heavy marking loads and assessment demands. They believe these heavy workloads are a prime reason for ECSTs to leave the profession. The United Kingdom's (UK's) Association of Teachers and Lecturers'(ATL's) survey of early career teachers found that 70% of pre-service and NQTs thought about leaving, while 76% said that this was because the workload was too high (ATL, 2015). Whilst Johnson et al. (2015b) point to the resilience of ECSTs, it is clear that if they are left alone to deal with these issues, it is more difficult to deal with them and so many may decide to leave. High workloads can also lead to low teacher morale which has implications for the classes they teach. The report of the Organisation for Economic Co-operation and Development (OECD) (2016) found a reciprocal relationship with teacher morale and student performance with lower teacher morale being positively correlated with lower student performance (OECD, 2016). Schools which ignore the low morale of their staff will not get the best results from them (Mackenzie, 2007). It is difficult to see how teacher morale can be boosted in schools where so many younger teachers are in casual relief positions, as was found in this study, with the attendant stress that has been described (cf. AITSL, 2017c).

Companions on the Journey—Communities of Practice and Social Learning Spaces

In light of the difficulties facing many early career secondary teachers, this chapter now moves to more formally consider how they might be best supported. In particular, it considers the theoretical background behind the idea of Communities of Practice (CoPs) as developed by Lave and Wenger (1991), Wenger (1998), Wenger, Trayner and De Laat (2011) and the subsequent Wenger-Trayner partnership (Wenger-Trayner & Wenger-Trayner, 2014, 2017a, 2017b[13]).

The foundational ideas about Communities of Practice arose out of the research of Lave and Wenger (1991), who were arguably the first to coin the term "Communities of Practice". Their research in the late '80s included a close study of the apprenticeship of Yucatec midwives in an American Indian community, Vai and Gola tailors from West Africa, US naval Quartermasters, modern meat cutters and non-drinking alcoholics in Alcoholics Anonymous. In analysing these examples, they found that, in contrast to traditional school situations, direct transfer of information in a formalised way was generally not as important to the apprentices as involvement in a community that facilitated their learning. In at least three of the examples, there was a noticeable absence of the conventional master-apprentice relationship. Rather, newcomers in these communities were able to experience what they define as *legitimate peripheral participation*:

> Legitimate peripheral participation provides a way to speak about the relations between new comers and old-timers, and about activities, identities, artefacts and communities of knowledge and practice. It concerns the process by which newcomers become part of a Community of Practice. (Lave & Wenger, 1991, p. 29)

With the Yucatec midwifes, for example, Lave and Wenger (1991) drew on the anthropological research of Jordon (1989) to show how

[13] This is a selection of the vast array of research literature that Wenger and the Wenger-Trayner partnership have generated and which have informed this research.

apprenticeship happens as a part of everyday life. Mayan girls, for example, were gradually introduced to the art of midwifery from an early age by observing their midwife mother or grandmother, hearing stories from their practice and gradually starting to do increasingly significant roles in the practice as they get older. Similarly, the traditional Vai and Gola tailors, although experiencing a more formal introduction to their art than the new midwives, still moved from a peripheral to full participation in their community, through a process of observation and increasingly significant and varied roles (Mercieca, 2017). There were no formal classes and, even though there was a distinct master-apprentice relationship, where master tailors sponsored new apprentices, the greater learning appeared to occur between other old timers and their peers: "... an apprentice's own master is too distant, an object of too much respect, to engage with awkward attempts at a new activity" (Lave & Wenger, 1991, p. 29). This aligns with the idea of tacit knowledge—that there is a rich depth of untapped knowledge that resides in organisations such as as schools (Kemmis, Wilkinson, Edwards-Groves, Hardy, Grootenboe and Bristol, 2014; Sternberg & Horvath, 1999). Although many experienced teachers may be quietly aware that they possess this knowledge, they often do not realise how valuable it can be to share it with other less experienced teachers.

These seminal ideas challenged the conventional, cognitive understanding of the time that learning was intentional, internalised knowledge transmitted from teacher to pupil: "We suggest that learning occurs through centripetal participation in the learning community of the ambient community" (Lave & Wenger, 1991, p. 100). This understanding of learning as a "trajectory into a community", rather than a handing down of facts, became the central theme for Wenger-Trayner and Wenger-Trayner and all that was to follow in their theorizing (Omidvar & Kislov, 2014, p. 269).

Underlying the idea of Communities of Practice (CoPs) from an epistemological perspective is the foundational work of Vygotsky (1978, 1981). His theory of human, cultural and social development was based on the understanding that social relations are preeminent, *genetically* underlying all higher functions. He argued that the individual and their

environment should not be viewed as distinct, separate factors that can, in some way, be added up to explain the individual's development and behaviour: "Rather, we should conceive of the individual and his [sic] environment as factors that mutually shape each other in a spiral process of growth" (Vygotsky, 1978, p. 22). This is a unique insight that goes to the heart of the conceptual framework of this thesis, the importance of the type of social learning that underpins an understanding of CoPs and various Social Learning Spaces.

Wertsch (2009) provides a rich synthesis and critique of Vygotsky's ideas, using the terms *inter* and *intra* psychological processes to describe the way higher order thinking is developed. He describes how *inter* psychological processes arise out of social interactions which, in turn, influence the *intra* psychological process of the person's higher order thinking. From the earliest months of a child's development, he suggests, when they start to call on an adult's attention by pointing to objects, their intra psychological functioning begins to grow: "All higher mental functions are internalised social relationships" (Vygotsky, 1981, p. 166). Wertsch (2009) stresses that this process of internalisation is not a case of external experiences being copied into an internal plane that already exists, but rather that it is the external reality that creates the internal consciousness.

Three Defining Features of Communities of Practice

Whilst the earlier research of Lave and Wenger (1991) focused primarily on how a learner moves into a community, from legitimate peripheral participation to full membership, the next phase of Wenger's (1998) work gave significantly more prominence to the defining features of a Community of Practice. Through a close study of a medical insurance claims processing office, Wenger outlined three key structural features of a Community of Practice: *mutual engagement*, *joint enterprise* and *shared repertoire.* However, his more recent writing, and the Wenger-Trayner website (Wenger-Trayner et al., 2017b), now use the simpler terms of *domain*, *community* and *practice* which will be used for the purpose of this study. Figure 2.2 highlights the importance of the *learning partnership* that lies at the centre of any CoP, arising out of the social space that has been

created through the sharing of a common domain. Wenger et al. (2011) suggest that the three elements of domain, community and practice are closely connected: "The key characteristic is the blending of individual and collective learning in the development of a shared practice" (p.10).

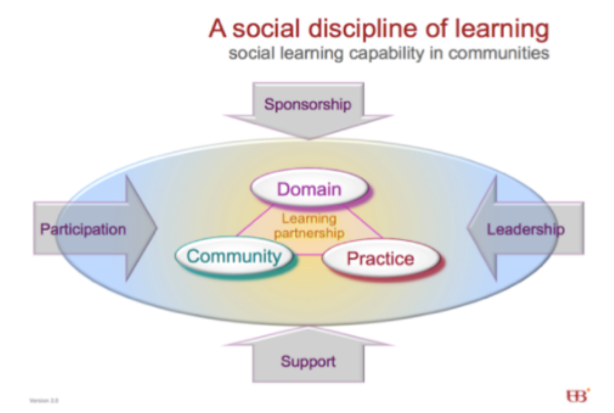

Figure 2.2. A social discipline of learning. (Retrieved from http://wenger-trayner.com/project/a-social-discipline-of-learning/)

As Figure 2.2 indicates, learning flows back and forth between the three elements of domain, community and practice as teachers experiment with new strategies, with variable success, and come back to the community to revise and adjust them. This is known as a *learning loop* (Wenger et al., 2017b). Timperley (2008) has a similar idea in maintaining that teachers need multiple opportunities to absorb new information and translate it into practice. "Learning is cyclical rather than linear, so teachers need to be able to revisit partially understood ideas as they try them out in their everyday contexts" (p. 15). She suggests that up to two years might be needed for teachers to fully integrate a new strategy into their classroom that might be quite different from their existing strategies. The support of a CoP over this time to offer advice and celebrate small achievements cannot be under-estimated. Examples of this will be seen in Chapters 5 and 6. It is difficult to see how an individual teacher could accomplish such sustained change as Timperley describes on their own.

Although the elements of domain, community and practice are inter-related, initially it is usually the domain that is the starting point of any Community of Practice. It is what motivates people to gather with a shared

concern or interest. In turn, it is what keeps the CoP focused, and ensures its relevance over time. Essentially, a domain is what establishes the identity of the CoP and, through the shared knowledge of its members, it creates the boundaries that distinguish it from other CoPs: "Over time, such histories create discontinuities between those who have been participating and those who have not" (Wenger, 1998, p. 103). Those who can move between different communities and share their learning from each are known as *brokers.* The role of a broker is one who has multiple memberships of different communities and can create a type of bridge between them "carry[ing] learning from one place to another" (Wenger, 2009, p. 7). This is seen in Chapter 6 where ECSTs shared what they had learnt at a weekend TeachMeet gathering with their school CoP in the following week. More complex skills are required to operate in such an environment, as each CoP has its distinctive features and culture. Through learning to operate in diverse environments, brokers have the opportunity to develop *knowledgeability,* which informs their participation in each community.

A domain has the potential to draw together a great variety of participants, which is more likely in the external and online examples of this research, where participants can come from a variety of schools and sectors and, in the case of online communities, from a variety of states and countries. What unites these participants is a common passion for a particular goal or enterprise. A defining feature is that membership is voluntary. Once mandatory requirements are introduced, which is what happened in some school situations in this study, the very heart of a CoP is challenged. As May and Keay (2017) query, "If a Community of Practice becomes a management tool does that detract from its value?" (p. 80).

If the domain is what establishes a CoP, it is undoubtedly the feature of community that sustains it, ensuring that participants keep on coming back. Community is essentially about relationships and particular measures need to be set in place to ensure that these are fostered. This could include providing refreshments, allowing time for less formal interaction at the start or the end of proceedings, and affirming participant successes on a regular basis. Refreshments and the socialisation that accompanies them will be seen as a key element of the TeachMeet gatherings discussed in Chapter 6.

As Wenger (1998) stresses, "Whatever it takes to make mutual engagement possible is an essential component of any practice" (p. 74).

Finally, out of the passion that members feel for their shared domain comes their commitment to learn and share with each other, which is called practice—the essence of what they are about. Participants develop, over time, "a shared repertoire of communal resources (routines, sensibilities, artefacts, vocabulary, styles, etc.)" (Wenger, 1998, p. 2). Whereas the domain has drawn participants together and community has sustained their fellowship and learning, it is practice that crystallises these experiences and shared knowledge. As Pedersen, West, Brown, Sadler and Nash (2017) emphasise, "passion drives practice" (p. 104). Whilst a team might work on a task, then disperse, a community continues over time, deepening its learning experience as it moves through successive learning loops. Members grow in trust and mutual respect, with the fear of being ridiculed for the questions they might ask or the experiences they might share being removed. They begin to build their *competence*. Wenger (1998) suggests this happens in a number of ways. Initially, CoPs become "nodes for the exchange and interpretation of information" (p. 5). As time goes on, they "retain knowledge in living ways", knowing what is relevant for their particular community and how to make it acccesible for newcomers (p. 5). Ultimately, they "steward competencies to keep the organisation at the cutting edge" (Wenger, 1998, p. 5). The idea of stewarding competencies will be seen in the examples in Chapter 5, where ECSTs and their leaders from a very successful Mathematics CoP have shared their expertise with other schools, on their school website, at conferences and through other teachers visiting the school to observe classes. Wenger considers this the most valuable part of the CoP, allowing for collaborative leadership, building the professional identity of members and contributing in tangible ways to the overall organisation.

A strong practice allows a Community of Practice to deal with challenges as they arise and can lead to the development of *reification*—in effect, the observable output from the community, what it shares with the wider community (Wenger, 1998). Reification could include the creation and distribution of stories of individual and community successes to capture

best practices, opportunities for sponsored projects or encouraging the publication of articles about the community and its projects (Cambridge, Kaplan, & Suter, 2005). The output from the community embodies its history and its perspectives on the world and begins to give it a profile in the wider school, sector or state community. Feedback from the wider community can also help a CoP to move forward, achieve greater clarity about its purpose and help to strengthen and extend its work.

As Figure 2.2 indicates, the three defining features are clearly linked and work together to create a dynamic learning community. A well-defined domain helps to generate the key issues and tasks that the community will steward. Within this context, as personal stories and experiences are shared, mutual trust and respect is generated and a learning partnership is created. Further, through connecting people who might not otherwise interact with each other, new and stimulating learning can occur which may help participants to improve their classroom practice. More experienced teachers have opportunities to mentor and coach younger members, whilst younger members can gain confidence in realising they are not the only ones grappling with particular problems (Mercieca, 2017).

On the other hand, if any one feature is out of balance, the overall functioning of the Community of Practice can be threatened. If, for example, the domain is too broad or ill defined, the participants might not have enough in common to generate the engagement needed (community) or create meaningful practice. People may sign up but not contribute or honour their commitments. Alternatively, if there is a clearly defined domain, but limited active involvement of participants or hierarchical leadership, the CoP could easily slip into becoming a traditional meeting (Mercieca, 2017). There is a danger of this happening in a school if participants are all from the same faculty and they are led by their faculty leader. Wenger (2010) also points out the problem that too much dependence on a co-ordinator or central leader can make the group vulnerable if the person leaves, whilst also decreasing the diversity of perspectives in the group. Finally, there can be problems if a group has a clearly defined domain and active community involvement but the practice is not in balance. Wenger (2010) highlights the problem of too much

reification, where communities focus so much on documenting their work that it become its sole purpose to the detriment of genuine fellowship and engagement. Alternatively, if there is not enough documentation and output, with ideas being continually reworked and nothing coming of them, this is not desirable either, the community ultimately could become stale and unappealing to participants (Mercieca, 2017). These are some of the issues that will be taken up in this research.

Over time, a community creates its own history of learning and an experience of *competence* amongst its members. This includes:

- Understanding what matters, what the enterprise of the community is and how it gives rise to a perspective on the world;
- Being able (and allowed) to engage productively with others in the community;
- Using appropriately the repertoire of resources that the community has accumulated through its history of learning. (Wenger, 2010, p. 180)

A Landscape of Practice and Social Learning Spaces

The third and most recent phase of an understanding of Communities of Practice came from the partnership of Etienne and Beverly Wenger-Trayner who began to see CoPs as part of a Landscape of Practice where participants negotiate a level of *knowledgeability,* a special form of competence, as they move between the various CoPs and networks that they belong to (Wenger-Trayner, et al., 2014). This understanding reflects a contemporary perspective on the world of the 21st century, where increased mobility and the technological revolution provide opportunities for people to participate in a range of different communities, including online ones, each of which has as its boundaries, its particular culture and competing claim to knowledge. These are not necessarily always geographical boundaries—it is possible to have quite diverse CoPs, for example, within just one school. CoPs are "mini-cultures" with their own customs, language and ways of operating, requiring particular skill and commitment on the part of the broker to move between them (Wenger, 2010, p. 183). Being able to

move effectively between different CoPs as a broker who can cross boundaries is an important and necessary process within a 21st century context. As Wenger (2010) explains, there is "a profound paradox as the heart of learning in a system of practices: the learning and innovative potential of the whole system lies in the coexistence of depth within practices and active boundaries across practices" (p. 183-184).

Within the framework of a Landscape of Practice, Wenger (2009) has further evolved his theory of social learning in terms of Social Learning Spaces. A Social Learning Space is a broad term, encompassing a variety of forms of collaboration, including Communities of Practice and networks. This was illustrated in Chapter 1 in Figure 1.1. Networks are less highly structured than CoPs and often encompass a much broader range of participants. Nonetheless, they have significant features in common with CoPs in terms of learning relationships:

> The *network* aspect refers to the set of relationships, personal interactions, and connections among participants who have personal reasons to connect. It is viewed as a set of nodes and links with affordances for learning, such as information flows, helpful linkages, joint problem solving, and knowledge creation. (Wenger et al. 2011, p. 9)

Social media outlets such as Twitter Personal Learning Networks (PLNs), Teach Connect and Facebook would fall into this category of providing "affordances for learning." Similar to a Community of Practice, such Social Learning Spaces are built around a domain of interest—in some cases, very focused, such as Twitter hashtags which are linked with particular content areas. In others, such as with AussieEd, topics are more broadly based around innovative and best practice learning. Whilst participants might be irregular in their attendance or tuning in to online chats, "There is enough continuity to develop a shared repertoire of language, concepts, and communication tools that make practice discussable" (Wenger-Trayner et al, 2017). Goodyear et al. (2014) emphasise that online platforms such as Facebook and Twitter are financially viable, readily accessible, and that their use does not take

teachers away from their school environment. The value of private Facebook groups, particularly for casual, rural or remote ECSTs, is illustrated in Chapter 6, as are Twitter PLNs which "are a treasure trove for teachers seeking advice on how to make learning better" (Bogardis Cortez, 2016, para. 1).

Those who help to organise Social Learning Spaces and inspire those who attend are known as *social artists* (Wenger, 2009). These are those talented individuals, present in many institutions, who are skilled at inspiring others to join CoPs and to facilitate their learning in the best way possible within them. In Chapter 5, leading teachers L1, L2, L3 and L4 are particular examples of this, along with L5 in Chapter 6 who set up the Centre for Learning at his school and L6 who introduced TeachMeet to Melbourne ten years ago and continues to promote it, encouraging teachers and pre-service teachers to attend.

Having reviewed the defining features of Communities of Practice within a Social Learning Space, this research now considers what value belonging to these communities might give to early career secondary teachers in terms of their professional learning, a relatively new term, as opposed to the more traditional notion of professional development.

Professional Learning as a New Model of Teacher Learning

Traditionally, the term "professional development" (PD) has been used to describe the learning that teachers need to do to "maintain high quality practice" which is "reinforced by explicit requirements of professional standards and registration" (Webster-Wright, 2009, p. 702). For many Australian teachers, professional development is associated with fulfilling a mandatory number of hours per year to satisfy their State registration body. However, Fullan & Quinn (2016) see professional development as a term and a strategy which has run its course in that its delivery is often "fragmented", "focused on fixing individuals" and not necessarily specifically related to each school's particular context (p. 57). It is what Lieberman, Campbell and Yashkina (2016), drawing on the research of Best and Holmes (2010), would call a first-generation model of professional development, "a linear, one-way relationship of research-to-

practice" where external, "expert" knowledge is imposed on teachers (Lieberman et al., 2016, p. 83). This is not to say these forms of professional learning, such as seminars and conferences, are irrelevant—in fact they are avenues for learning, helping to disseminate new ideas and inspire teachers—but they are clearly less effective for a school if there is no way of regularly sharing the learning arising from them. Neither are they necessarily tailored to the specific needs of teachers. As Lieberman et al. (2016) remind us, "most places in the world say that teachers know best what they need to learn and they are the key to the improvement of practice and student learning" (p. 34). They go on to speak of second generation models where a greater emphasis is placed on relationships, with knowledge distributed through networks and partnerships. Whilst this has advantages over the previous model, they draw attention to the fact that this is still a research to practice model.

A third-generation professional learning model goes further in allowing for "mutual interaction, knowledge co-creation and knowledge application" (Lieberman et al., 2016, p. 83). This is based on an understanding of learning as lifelong, and of its delivery being holistic and potentially transformative (Webster-Wright, 2009). Teachers become "mobilizers and leaders of knowledge", working together to reflect on particular issues and strategies within or beyond their particular school context, sharing their knowledge (Webster-Wright, 2009, p. 84). Similarly, Mitchell (2017) refers to "professional learning mobility" whereby teachers choose a "best-fit" rather than a "one-size-fits-all" approach to access their effective professional learning (p. 254). This might involve a blend of online learning through a Twitter PLN, intermittent attendance at TeachMeet or unconference gatherings and participation in a school CoP. How this diverse range of professional learning is accredited and how schools acknowledge it are areas that have not yet been fully explored.

Further, Fresko and Nasser-Abu Alhija (2015) see CoPs as the main avenue for professional learning within a school if teachers are "to develop knowledge, skills, and expertise, and to enhance teaching effectiveness" (p. 37). Given the importance of effective professional learning, they stress that policy makers and school leaders need to revise existing structures in order

to provide dedicated time for it (Martinez, McGrath & Foster, 2016). As Jensen, Sonnemann, Roberts-Hull and Hunter (2016) suggests, “What will make the difference to student outcomes is the quality of professional learning, and the alignment of structures within and between schools to ensure that teachers have the time to make the most of professional learning opportunities” (p. 31). Examples of how CoPs in schools have structured meeting times in various ways will be evident in some of the examples in Chapters 5 and 6. These practical considerations will be also discussed further in Chapters 7 and 8.

The literature on the value of more experienced teachers actively engaging with early career teachers is extensive (Fenwick, 2011; Lovett & Cameron, 2011). The research of Cameron, Mulholland, and Branson (2013) on the influence on teacher learning practices in five regional schools in Australia found that teachers preferred working with their colleagues more than they did other forms of professional development. This included visiting each other’s classrooms to observe each other at work and sharing their ideas in gatherings. As one school Principal observed:

> Often there’s success from failure; a better culture when people try something together and fail together. That can bring them closer. If you try something on your own and it goes horribly wrong, you just say, ‘I won’t do that again,’ whereas when you’re with someone else you can problem solve together and give it another go. (Cameron et al., 2013, p. 381)

Lovett and Cameron (2011) found a similar desire for collaboration and for supported leadership opportunities with the ECSTs they interviewed in New Zealand. They suggest that “more experienced teachers and school managers fail the profession’s newest members when they do not offer this support, or are not in a position to because of school-based restraints” (p. 101). AITSL’s recent report, *Classroom Observation Strategies: Choose your Journey* (AITSL, 2017a), has also been instrumental in promoting various forms of observation that can be used to build teacher practice and

enhance student outcomes. These include classroom observation[14], instructional rounds[15], learning walks[16] and other forms of peer observation. Each strategy encourages conversation about what constitutes good practice and helps to build social connection and collaboration between the teachers involved. Similarly, ACER (2016) has designed, and is currently promoting, a Professional Learning Community Framework and Questionnaire for Australian schools. Ingvarson (2015), the author of the Framework, highlights the fact that it is based on a synthesis of research findings. It has begun to be used in Australian schools, as will be seen in Chapter 5 in relation to Remote SHS. The Framework consists of five domains:

- A professional culture that includes shared norms and values, a focus on student learning and reflective inquiry;
- Leadership that fosters and support a professional culture;
- A focus on student engagement, learning and well-being;
- A focus on improving professional knowledge and practice;
- Teachers think systematically about their practice and learn from experience (p. 3).

These domains align well with the features of Communities of Practice and the conceptual framework of this research. The idea of reflective inquiry is also supported by Evans and Christodoulou (2017) who see teacher research as an important way for ECSTs to advance their professional learning, giving them “a greater sense of agency within their schools” (p. 411). The support of a CoP to guide and scaffold this research cannot be under-estimated. Using reflective inquiry is also an ideal way for

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[14] Classroom observation involves teachers observing each other’s classroom practice and providing feedback.

[15] Instructional rounds involve groups of teachers visiting a range of classrooms at their own school or another school, debriefing, sharing their observations and reporting back to management.

[16] Learning walks are similar to instructional rounds, but with more of an emphasis on fostering conversation and creating a shared vision about what impacts student learning.

ECSTs to address the mandatory requirements of regulatory bodies in order to progress from a graduate to a professional teacher.

Finally, a particular form of professional learning known as coaching was pioneered by Joyce and Showers in the 1980s. The idea of coaching grew out of research with teachers in staff development programs that revealed that "as few as ten per cent of participants implemented what they had learnt" (Joyce & Showers, 1996, p. 12). Early coaching models involved weekly seminars in which teachers focused on strategies to use in the classroom. Students' responses were then gathered and analysed. These data were then fed back to the teacher and their coach. The success of this process in terms of teachers implementing strategies in their classrooms led to the development of trained coaches who worked with teachers to not only initiate strategies, but to continue to monitor and extend them, by drawing on student feedback.

There is now a huge body of literature in the area of coaching and a number of key programs, in which some ECSTs in this study have been involved. A recent researcher in this field, Netolicky (2016), having reviewed a range of research evidence, concludes that "being part of a school-based cognitive coaching model is an identity-shaping experience, which can have positive, unexpected, non-linear impacts on and beyond individuals" (p. 81). Also from a coaching perspective, Lofthouse and Hall (2014) point to the value of purposeful dialogue within collaborative groups, where teachers have a particular focus for their learning, rather than relying on free conversation. They see this as taking place in a "semantic space" which consists of "the choice of words in the questions, responses, narratives and reflections" (p. 775). They suggest that using purposeful dialogue is important in making best use of the limited time busy teachers have for meeting together. These ideas related to coaching will be seen in Chapter 5 in relation to the data from participants at Rural College.

The features of a professional learning culture within a school are reflected in the following sections which focus on particular outcomes that can emerge for CSTs in such environments. Just as the Scarecrow, the Lion and the Tin Man in *The Wizard of Oz* (Baum, 2015) are seeking a brain, courage and a heart respectively as they journey along the Yellow Brick

Road, so too the ECST must find ways of developing self-efficacy (in terms of the courage to deal with situations that arise), professional identity (in terms of learning what it is to be a teacher) and social connection (in terms of experiencing the support of others, their heart). These are qualities that have the potential to help them not only survive but thrive in a school situation.

Finding Courage—Teacher Self-Efficacy

Self-efficacy has been variously described as the degree to which a person will persist in the face of obstacles (Bandura, 1977), their belief in themselves to bring about desired outcomes (Tschannen-Moranam & Hoy, 2001) and their capacity to learn and continually reflect on the learning process (Blaschke, 2012). Bandura (1977) argues that self-efficacy can have a direct influence on the effort and energy a teacher will expend: “The stronger the perceived self-efficacy, the more active the efforts” (p. 194). He notes that failures become “corrective experiences” and that those with stronger self-efficacy will persist longer and deal more effectively with stressful situations. He goes on to suggest that there are four key ways for a teacher to develop self-efficacy:

- Personal accomplishment: Success which is based on personal mastery;
- Verbal persuasion*:* This involves receiving feedback from a colleague or superior;
- Vicarious experience: This involves seeing more experienced teachers model strategies and approaches;
- Emotional arousal*:* The joy/satisfaction experienced when teachers experience success in a difficult situation.

These four ways of developing self-efficacy will be used to assess the self-efficacy of the participants in this study in Chapters 5 and 6.

The importance of teacher self-efficacy as a pre-requisite for improving professional practice and student outcomes is further evident in a number of recent national reports. The OECD report, *Schools for 21st*

Century Learners: Strong Leaders, Confident Teachers, Innovative Approaches (Schleicher, 2015), drawing on data from the Teaching and Learning International Survey (TALIS)[17] and the Program for International Student Assessment (PISA)[18] surveys, outlines three key themes underpinning the 2015 International Summit on the Teaching Profession: leadership, teacher self-efficacy and innovation. Of these, teacher self-efficacy is given the most prominence. In the complex and challenging environment of a school community, a teacher's confidence and their self-esteem can take a battering. The report found that the good will and camaraderie that arose out of collaborative activities, such as observing each other's classes and team teaching, as well as more formal gatherings to share ideas, helped teachers to balance the detrimental effects of dealing with challenging classrooms. In particular, teachers who engaged in collaborative professional learning at least five times a year showed significantly higher levels of self-efficacy, as well as greater job satisfaction (Schleicher, 2015). Similarly, ongoing research continues to confirm that "teachers with strong personal efficacy beliefs consistently outperform teachers in the same settings with weaker beliefs" (Garmston & Wellman, 2016, p. 27). This has implications for the participants in this study who worked collaboratively with their peers in the various types of CoPs that are described in Chapters 5 and 6.

Teacher self-efficacy is also linked positively with social well-being and resilience (Brough, Morrow, & Harding, 2016; Clarà, 2017; Helms-Lorenz, Slof, Vermue, & Canrinus, 2012; Johnson et al., 2015a; Scherer, 2012; Ventura, Salanova, & Llorens, 2014). Helms-Lorenz et al. (2012) suggest that perceived increases in self-efficacy in beginning teachers can be related to a reduction of stress and an increase in coping activities in the face of threatening situations. Teachers with high levels of self-efficacy are more likely to see classroom problems as challenges rather than hindrances

[17] TALIS, administered by OECD, provides cross-country analysis that helps countries identify others facing similar challenges and learn about their policies.

[18] PISA, administered by OECD, is a triennial international survey which aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students.

whilst those with low levels are more prone to stress and burnout (Ventura et al., 2014). This is also supported by Clarà (2017) whose semiotic analysis of interviews conducted with young teachers found that those who were able to reappraise their perception of difficult teaching situations were able to build the necessary resilience to cope with these situations more effectively. He concludes that it was the reflective processes that occurred that were crucial in building the resilience of these teachers:

> The results suggest that direct, intentional and systematic assistance with teachers' reappraisals could be a powerful tool for the development of the teacher workforce and improving teachers' well-being and retention rates. (p. 27)

This type of support that allows an ECST to reflect on difficult classroom situations and reappraise them with guidance from more experienced teachers is at the heart of what a CoP offers. The need to build up resilience has particular relevance in the current political climate where more is expected of teachers—evidence suggests that teachers are working longer hours (Brough et al., 2016)—and where graduate teachers are not always as well trained as is needed for the complex learning needs of the students they teach (Nicholas et al., 2016). As will be illustrated in Chapter 4, many ECSTs are often anxious and overwhelmed by the complex and demanding environment they have entered, with some experiencing considerable loneliness as they re-imagine their whole lifestyle to cope with what their new career requires. Clandinin et al. (2015) suggest that instead of focusing on retaining teachers, schools should focus on "sustaining" young teachers, listening to them and creating spaces where they can reflect on their experiences (p. 13). They propose that schools need to provide "safe spaces" where teachers can gather and support each other, which in the context of this research, might be called Communities of Practice. In a similar vein, Wang, Hall, and Rahimi (2015) found in their research with 523 Canadian teachers, a clear link between teacher self-efficacy and the psychological and physical health of teachers, as well as their likelihood to quit. They suggest that "programs for teachers in which they are equipped with both teaching strategies and motivational strategies for dealing with

stress" are warranted (p. 128). These are all pertinent ideas to take note of in the demanding and complex environment in which we place our least experienced teachers.

Whilst most research has focused on individual teacher self-efficacy, Goddard, Hoy and Hoy (2000) take the concept further in considering collective teacher efficacy, seeing it as the overall mindset of teachers in a school which can have the greater effect on students. They found that the overall high level of collective teachers' efficacy beliefs in a school community led to teachers, even with average efficacy beliefs, to persist more in their efforts and take more responsibility for student achievement, leading to better outcomes for the school. Whilst not going so far as to specifically suggesting the development of CoPs, they implicitly promote such a structure by encouraging schools to develop organisational strategies that allow for the sharing of beliefs to enhance collective teacher efficacy. This aligns with the insights of Hargreaves and Fullan. (2012) who emphasise the need to generate in what they call "high social capital" within school communities that will assist new teachers to gain confidence from having the right kind of people—such as mentors—around them and the right type of opportunities for interaction and feedback on their practices. As Hargreaves and Fullan (2012) observe, this is more of a whole school approach, with benefits for not only early career teachers but the entire staff of a school:

> The key difference between those who have good beginnings and those who have painful ones, between those who feel they are getting better and those who are not, is the quality of the school's culture and its level of support. (p. 69)

In a later publication, Hargreaves and Fullan (2013) describe professional capital as "the interactive, multiplicative combination of three types of capital" (p. 39)—human capital (how good we are alone), social capital (how we get better together) and decisional capital (how we get better over time). In a similar vein, Fullan and Quinn (2016) speak of "coherence" as "the shared depth of understanding about the purpose and nature of work" that a school might have" (p. 1). They envisage a school

that is clear about its focus, fosters the development of collaborative interactions, has a deep understanding of learning and ensures there is a culture of both internal and external accountability. The metaphor of two popular TV shows—*Survivor* and *The Voice*—is used to highlight the difference between the two different types of cultures. The *Survivor* culture is typified by a competitive, hostile environment, where there are winners and losers and efforts are very individualistic (Fullan & Quinn, 2016). Examples of this type of environment will be evident in Chapter 4. By way of contrast, *The Voice* culture is one that excels in support—providing mentors, coaching and collaborative opportunities: "People have an innate desire to belong and contribute—to be part of something bigger than themselves" (Fullan & Quinn, 2016, p. 51). These are the types of environments that will be presented in Chapters 5 and 6.

Finding a Brain—Professional Identity

Linked with the idea of teacher efficacy is that of teacher professional identity. The idea of identity has its roots deeply embedded in developmental psychology. A seminal voice in this field, Erikson (1969), focused on the chronological stages that a person goes through as they interact with their environment and develop their identity. This essentially social understanding of identity, similar to that of Vygotsky (1978) and the epistemological assumptions of this study, underpins an understanding of teacher professional identity. Beijaard, Meijer, and Verloop's (2004) research on teacher professional identity identified four features that are essential for its development:

- Professional identity is an ongoing process, of life-long learning that is neither fixed nor stable;
- Professional identity implies both person and context—while teachers need, to some extent, to adopt the professional codes and mores of the school community they work in, there is also scope for them developing their own "teaching culture";

- A teacher's professional identity consists of sub–identities that more or less harmonies. These relate to the different contexts in which a teacher lives and works, which need to be in balance;
- Agency—the teacher needs to be active in developing their own professional development through individual and communal means.

Agency is also seen as having a sense of purpose, of intention, which draws on values and a cultural identity (Frost, 2006). It is linked with self-efficacy and self-belief in the sense that being able to take action is dependent on having the belief in yourself that you can do it. These are aspects of professional identity that will be explored further in Chapters 5 and 6.

Another seminal voice in this field, Palmer (2007), sees identity as coming from the intersection of intellect, emotion and spirit that form a teacher's sense of selfhood: "Face to face with my students, only one resource is at my immediate command: my identity, my selfhood, my sense of this 'I' who teaches—without which I have no sense of the 'Thou' who learns" (p. 10). He believes the key to helping teachers develop and deepen this sense of identity is to give them opportunities to reflect on their lives and then share their experiences and feelings with their colleagues. This is where Communities of Practice come to the fore, in providing safe places for ECSTs to share their struggles and teaching dilemmas without fear of censure.

Building on Palmer's understanding of identity, Bukor (2013) suggests that a teacher's identity is more than their perception of their professional roles. His research, although limited in its sample size, led him to see identity as being linked with "the imprints of the complex interconnectedness of one's cumulative life experiences as a human being" (p. 323). He proposes that more attention be given in ITE institutions to developing a more holistic understanding of identity with pre-service teachers. Similarly, Pillen, Den Brok, and Beijaard (2013) further nuance an understanding of professional identity by highlighting three areas of tensions related to teacher identity for ECTs: the changing role of being a student to becoming a teacher; conflicts between desired and actual support

given to the students they teach; and conflicting conceptions of learning to teach. They suggest that these tensions can begin to be resolved by schools providing opportunities for teachers to share their experiences and discover that they are not alone. Again, the place of CoPs to provide these opportunities for teachers to share their experiences is apparent.

Finally, Wenger (1998) has a particular emphasis on identity as part of his development of how CoPs function. This idea of identity was implicit in Lave and Wenger's (1991) earliest seminal work, *Situated Learning: Legitimated Peripheral Participation*; however, it was not until Wenger's publication of *Communities of Practice: Learning, Meaning and Identity* (1998) that he explicitly discussed the important role CoPs play in developing a person's identity. He defines identity as a negotiated experience within a community, where "we define who who we are by the ways we experience ourselves through participation" (p. 145). Over time, this identity is strengthened and affirmed as a "learning trajectory" (p. 149) taking us from where we have been to where we are now. Wenger (1998) outlines five key ways that identity can be understood in the context of practice:

- Identity as negotiated experience: We define who we are by the way we experience ourselves through participation as well as by the ways we and others reify ourselves;
- Identity as community membership: We define who we are by the familiar and the unfamiliar;
- Identity as learning trajectory: We define who we are by where we have been and where we are going;
- Identity as nexus of multi-membership: We define who we are by the ways we reconcile our various forms of membership into one identity;
- Identity as a relation between the local and global: We define who we are by negotiating local ways of belonging to broader constellations and of manifesting broader styles and discourses.

There are different challenges to identity depending on the time a person has spent in a community. Newcomers are challenged to find a place in and forge a new identity within a new set of circumstances. There is a certain level of vulnerability involved in this, as a person tries to find continuities between their past experiences elsewhere and their new experiences here.

Finding a Heart—Social Connection

Closely linked with the key element of community is an understanding of the importance of social development for the development of early career secondary teachers. As mentioned earlier, community is essentially about relationships built on “trust and reciprocity” (Hildreth & Kimble, 2005, p. 25) given the depth of sharing that can occur between members over time, as they get to know each other better. As Timperley (2008) notes, “Change is as much about the emotions as it is about knowledge and skills” (p. 16). She goes on to highlight the importance of teachers supporting each other as they grapple with different issues which can sometimes reflect poorly on their competence as teachers. As will be seen in some of the examples in Chapter 4, a number of ECSTs were very concerned about the Principal not hearing about struggles they might have had or data coming from their classes, lest their contract not be renewed. The emotional support of a CoP that is non-judgemental and adheres to a policy of confidentiality would appear to be a great asset for ECSTs, as well as the other staff involved.

Social connection has also been spurred by the plethora of both face-to-face and electronic ways of facilitating it in the 21st century. Whitaker, Casas, and Zoul (2015) define “connected educators” as teachers who develop their personal and professional learning networks, reaching out to other educators to expand their knowledge (p. 2). These teachers are likely to have extensive social connections with educators from all over the globe, particularly if they have developed Twitter PLNs and/or link into Twitter hashtag chats. P55 was an example of this when she reflected, “Twitter has just become such a great tool, in terms of not only finding resources but support.” Further, the review of social media services such as Facebook and Twitter by Collin, Rahilly, Richardson, and Third (2011) points to the

significant benefits of social media usage in delivering educational outcomes including "facilitating supportive relationships; identity formation; and, promoting a sense of belonging and self-esteem" (p. 7). Particularly for casual relief teachers who may not have the emotional support of any particular school community, such as a staffroom/ office, a mentor or a CoP, external networks such as TeachMeet and online sites such as private Facebook groups can, at least partially, fill this gap. Evidence of this will be seen in Chapters 4 and 6.

From another perspective, Kelly et al. (2016) have developed a framework to describe the ways in which teachers support one another in online environments which is based on the psychological notion of social peer support (House, 1981) and the roles of co-operating teachers (Clarke, Triggs, & Nielson, 2014). These support roles include developing shared understandings of issues, helping to find solutions to problems and clarifying thinking (Kelly et al., 2016). As Carpenter and Kruter (2014) suggest, social media, in particular Twitter, "provides opportunities for teachers to interact with a variety of educators and other stakeholders in ways that are sometimes rare in schools" (p. 12). This has particular implications for ECSTs who lack the support they need through being a casual relief teacher or being in a remote or rural location or an unsupportive school, as was the case with quite a number of participants in this study. Arasaratnam-Smith and Northcote (2017) also refer to the "social egalitarian" online world because other factors such as physical appearance, that influences face-to-face connection, are absent (p. 193). This was an important aspect of the private Facebook groups in this study, particularly those for casual relief teachers, where anonymity was actively sought and membership was strictly monitored.

Summary and the Knowledge Gap

This Review of the Literature began by examining the context of this study, the world of the early career secondary teacher. The theoretical underpinning of the study, the concept of a Community of Practice, was then examined as well as its more contemporary manifestations. This was followed by a review of literature related to professional learning and its

potential outcomes, including self-efficacy, professional identity and social connection.

Having completed this review, a number of knowledge gaps are evident. Firstly, it appears from this Review of Literature and the introductory chapter that, whilst the primary evaluative instrument that was used, the Value Creation Framework of Wenger et al. (2011), has begun to be appropriated in a variety of business and higher educational contexts (McDonald and Cox, 2017), there is currently limited research on its application in secondary schools in Australian contexts. This is identified as a knowledge gap that this study attempts to address. Further, very few formal studies, if any, would appear to have examined relatively new forms of Communities of Practice such as TeachMeet and unconferences, as well as more familiar, but potentially under-researched groups, such as Subject Associations. This study makes a new contribution to knowledge in exploring the value of these contemporary learning spaces for ECSTs and the particular value of being a broker in a Landscape of Practice that belonging to one of these networks as well as a school CoP can bring. To the researcher's best knowledge, no studies have specifically addressed this area of research.

Finally, whilst there has been research on the way in which teachers can obtain support within public online forums (Kelly et al., 2016), there is very little in the research literature about what is happening in private communities of support, other than in communities developed for the purposes of research. Again, whilst there is a growing body of research literature on the dangers and negative outcomes of social media usage in the professional lives of teachers (Russo, Squelch & Varnham, 2010), there is significantly less about the positive advantages social media might bring to ECSTs, particularly in terms of peer support for casual relief teachers and academic support for rural and remote school teachers (Mercieca & Kelly, 2018). These are particular areas addressed in this research.

Chapter 3 outlines the research design of this study and its philosophical underpinnings, as well as discussing the methodology that was use the particular methodsa of collecting and analysing the data.

Chapter 3 Research Design and Implementation

> *Dorothy was thinking so earnestly as they walked along that she did not notice that the Scarecrow stumbled into a hole and rolled over to the side of the road. Indeed, he was obliged to call her to help him up again.* (Baum, 2015, p. 25)

This study involved research that had a prime aim of listening to the voices of early career secondary teachers (ECSTs) in order to better understand their needs. It explored the ways they could be supported to potentially achieve, over time, a stronger sense of self efficacy, professional identity and social connection through involvement in a Community of Practice and other Social Learning Spaces. This question emerged from the issues associated with early career teacher attrition and the possible reasons for this as were articulated in the previous chapter. In addition, the previous chapter defined the features of Community of Practices and Social Learning Spaces and reviewed contemporary research on the value of these for the professional learning of early career secondary teachers. The purpose of this chapter is to delineate the choices the researcher made regarding the Value Creation Framework used to research these key ideas and the theoretical background of the research design which underpin the study. The mixed research methodology that was used will be discussed and its advantages outlined, as well as the methodological choices the researcher made in regard to sampling, participants, research methods, ethical considerations, validity and data analysis procedures. The data analysis section will discuss how the quantitative data were statistically analysed and how major themes in the qualitative data were coded. The main sections of this chapter are outlined in Figure 3.1.

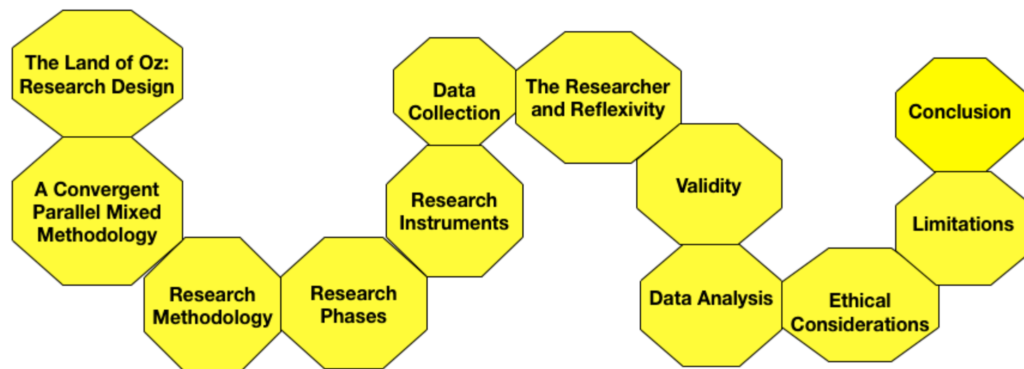

Figure 3.1. Outline of Chapter 3 Methodology

The Land of Oz—Research Design

This research utilised the paradigm of constructivism as articulated by Guba and Lincoln (1985, 2013). A paradigm is "an overarching set of beliefs" or "world view" related to general philosophical assumptions about the world and how we understand it (Guba & Lincoln, 2013, p. 59). As part of this paradigm, ontology is "one's view of reality and being" (Mack, 2010, p. 5) that reflects an interpretation by an individual about what constitutes knowledge. An interpretivist/constructivist ontology was chosen for this research, because it aligns well with the educational context in which the research was conducted and the social nature of Communities of Practice that was researched. Such an approach presupposes a relativist/subjectivist mindset, whereby reality is constructed by persons who are intentional in their actions and who actively construct their world (Cohen et al., 2007; Hesse-Biber, 2010). As such, it is different for different people, influenced to varying degrees by the cultural, historical, political, and social norms that operate within a specific context (Crotty, 1998). Related to this are epistemological assumptions relating to the nature of knowledge, that arise out of Vygotsky's (1978, 1981) understanding that learning/gaining knowledge is essentially a social activity. He proposes that individuals are intimately connected with the environment with which they interact and whereby they mutually shape each other (see Chapter 2). Knowledge is co-created and "involves dialogue and experimentation" (Hamilton, 2017, para. 1). A social conception of learning is a key understanding underpinning the idea of Communities of Practice and networks where participants engage in dialogue to develop/construct their learning.

An interpretivist/constructivist approach also involves multiple perspectives (Phillips et al., 2012) and is “highly personal and context-specific” (Guba & Lincoln, 2013, p. 40). Just as Dorothy and her companions—the Scarecrow, the Lion and the Tin Man—each had different perspectives of what they might receive from the Wizard of Oz at the end the Yellow Brick Road, so in this study there were multiple perspectives. Participants were spread across each of the main educational sectors—State, Catholic and Independent—from most states of Australia and from a range of ages from 22–46 years. There was also a variety of teaching situations such as those who were casual relief teachers, those who were on short-term contracts and those who had ongoing positions. Epistemologically, an interpretivist/constructivist approach examines the relationship between the “knower” and the “knowable” (Guba & Lincoln, 2013, p. 12), which in practice means the development of a close and collaborative relationship between the researcher and the participants. An approach such as this was particularly useful in this study given the sensitivity of the material often being shared, particularly by a number of the casual relief teacher participants and those participants in particularly challenging school situations. The theoretical underpinnings of the research design are outlined in Table 3.1.

Table 3.1.

Theoretical underpinnings of the Research Design.

Paradigm	Element
Epistemology	Constructivist
Theoretical Perspective	Interpretivist
Research Methodology	Mixed Methods
Methods	Focus Groups Questionnaire Semi-structured interviews
Analysis	Statistical analysis with SPSS Coding with Nvivo

In *The Wizard of Oz*, Dorothy must construct a whole new set of beliefs when she finds herself in the unfamiliar context of the Land of Oz. The relatively stable and predictable world she has constructed as a child

growing up in Kansas is very different from this new reality where inanimate objects come to life, animals talk and witches and wizards reign. Similarly, if less dramatically, the ECST must develop a new mindset in the school environment in which they find themselves. This is often very different from their previous life as a student or as a worker in another occupation, as is the case of some mature-aged ECSTs. From an arguably more passive role of learner, with relatively minimal responsibility, they are now pre-eminently the active agent in a range of classrooms with significant responsibility and high demands. An approach that was responsive to the sensitive material that could arise in interacting with ECSTs and that would help the researcher to make sense of their experiences was clearly what was required for this study. As such, an interpretivist/constructive approach was chosen with its emphasis on the individual and an empathetic relationship between them and the researcher. Holloway and Wheeler (2002) outline a number of key features of such an approach to qualitative research that directly related to this study:

- *The primacy of data*: There is an emphasis on the interaction between the researcher and participants in generating data. This was aided in this study by the researcher being a practicing teacher and thus being able to understand the challenges that participants described. This helped to generate a substantial body of rich data. Probing the meaning of participants' experiences is at the heart of what Creswell (2014) sees as a qualitative approach and a constructivist worldview.
- *Contextualisation/immersion in the setting*: There is an emphasis on the researcher having an intimate understanding of the settings and situations from which participants are drawn, in order to fully comprehend the meaning of comments that are made and to be sensitive to the context: "The context of participants' lives or work affects their behaviour, and therefore researchers have to realise that the participants are grounded in their history and temporality" (Holloway & Wheeler, 2002, p. 12). In this study, the researcher visited two of the exemplar

schools to fully understand the context of these schools, particularly those from a different sector and/or geographical situation to her own school. This was an important way for her to gain an understanding of the particular cultural context of each school and to build up the level of trust of participants. It also meant that the researcher was able to speak to key leaders in the Communities of Practice at these schools and informally observe classes in order to gain a fuller understanding of the history and development of their CoPs, their current context and possible future directions.

- *Thick description*: This arises from the context and the emphasis on data, allowing researchers to develop "detailed portrayals of participants' experiences, going beyond a report of surface phenomenon to their interpretations, uncovering feelings and the meaning of actions" (Holloway & Wheeler, 2002, p. 13). It extends what could ever be achieved in a quantitative methodology. Guba and Lincoln (2013) suggest that case studies are the typical way to collect such data, because they allow for "sufficient scope and depth to afford vicarious experience, sufficient understanding to suggest working hypotheses and sufficient detail to permit a reader to test a personal construction" (p. 79). For the smaller number of participants who agreed to be interviewed at regular intervals over a 15-month period, there was the opportunity to gather a much richer set of data than from the majority of participants with just one interview.

Further, an interpretivist/constructivist ontology was an appropriate choice for this study given the complexity of the situations in which many early career secondary teachers found themselves. It also suited the variety of Communities of Practice researched, including external CoPs such as TeachMeet and the online communities that were studied. Cohen et al. (2007) go so far as to suggest that, paradoxically, "the most sufficiently complex instrument to understand human life is another human" (p. 180), even though such an approach is not as objective or error free as quantitative

methods. Indeed, the researcher in this study was an integral part of the process, as the responses of participants were shaped, not only by the researcher's questions, but by her whole demeanour, openness and interaction with participants, leading to participants and the researcher co-constructing meaning.

A Convergent Parallel Mixed Methodology

A convergent parallel mixed methods design was used in this study to ensure research rigour. Mixed methodology is a relatively new, but increasingly common method for social science researchers (Christ, 2007; Fielding, 2012; Fielding & Schreier, 2001; Hesse-Biber, 2010). It has, arguably, the advantage of enhancing the rigour and validity of the study in a way that one particular method on its own could not achieve by allowing different data collection methods to complement or challenge each other. In this study, such an approach was able to capture the breadth and depth of what early career secondary teachers experienced, in a way that one methodology on its own might have failed to do: "the depth of qualitative understanding with the reach of quantitative techniques" (Fielding, 2012, p. 124). Hesse-Biber (2010) suggests that an interpretivist mixed methodology should use the quantitative data as an auxiliary to the primary qualitative data, with the quantitative data "enhancing the generalisability of the qualitative study" (p. 65). This was the case in this study where the questionnaire data were initially collected (107 responses) and a self-selected sub-sample (49) was taken from this as illustrative of the full population. In addition, the initial use of the quantitative tool allowed the researcher to "cast a wider net" (Hesse-Biber, 2010, p. 65) than would otherwise have been possible. Golafshani (2003) maintains that a mixed methodology is a very appropriate methodology to use in constructivist approaches considering that "constructivism values multiple realities that people have in their minds" (p. 604). This can best be accessed by a diversity of methods such as questionnaires, focus groups and semi-structured interviews, all of which were used in this study.

A convergent parallel mixed methodology is a popular approach which involves separately collecting both qualitative and quantitative data,

analysing each separately and then *converging* the data into a final analysis (Creswell, 2014). The *parallel* aspect of such an approach is that the same variables or concepts should be used in each form of data collection. In this study, the Value Creation framework of Wenger et al. (2011) was chosen as an appropriate theoretical framework as it drew on highly respected and current research and reflection on Communities of Practice and Social Learning Spaces. This framework guided the development of both the questionnaire and the focus group and semi-structured interview questions which are provided in Appendices 1 and 2. The semi-structured interviews drew on the key concepts in the questionnaire that each of the participants had earlier completed, to provide a more complete understanding of their experience and to allow new ideas to emerge. The final analysis integrated both quantitative and qualitative results so that a complete picture of the world of early career secondary teachers and the support they were receiving or not receiving through CoPs was developed.

Overall, a mixed research methodology draws on the strengths of both quantitative and qualitative research, whilst minimizing the limitations of each. Hesse-Biber (2010) maintains that such an approach has distinct benefits over more traditional methods when dealing with complex sociological questions “in order to understand the social story in its entirety” (p. 4). In particular, it relates to social justice and societal change, with its historical roots in studies of family poverty in Europe in the 1800s, where a variety of data collection methods were used, including surveys, interviews and observation. From a similar perspective, Fielding and Schreier (2001) warn that qualitative methods on their own run the risk of “elite bias” as often only the most articulate participants agree to be interviewed: “Quantitative data can deal with this fault by indicating the full range that should be sampled” (p. 17). In this study, the responses of 107 questionnaire participants from a wide range of schools across Australia complemented the more detailed comments of 42 single interview participants, 7 multiple interview participants and 10 focus group respondents.

Research Methodology

Three different data collection tools were utilised in this study: the quantitative tool of a questionnaire and the qualitative tools of focus group and semi-structured interview. The questionnaire included both open-ended and closed questions. Each had its particular advantages and disadvantages, which will be discussed later in this chapter. The closed questions were analysed with the statistical program SPSS Version 22.0, whilst the open-ended questionnaire questions, along with the transcripts from the focus groups and interviews, were coded using the computer-assisted qualitative data analysis software, Nvivo Version 11.0. Further integration of data occurred with the questionnaires of those who had been in focus groups or interviews being linked with their matched coded transcripts in Nvivo, allowing for a greater depth of analysis. Ethics approval (provided in Appendix 5) for the use of these tools was obtained from the University of Southern Queensland (USQ: approval number H15REA262). The data were collected over a 15-month period from February, 2016 until May, 2017.

Research Phases

The research was conducted in three phases. In the first phase, the research questions were formulated and the questionnaire, focus group and interview questions were designed with the assistance of the Statistical Unit at the University of Southern Queensland. Each of these tools drew on the Value Creation Framework developed by Wenger et al. (2011), with modification to suit the purposes of this research. Each tool was tested with peers and feedback was provided before being modified and utilised.

The second phase of the research was three-fold. The questionnaire was loaded into the survey software, Qualtrics, and an anonymous link created. This was then distributed through social networking sites and by *snowball sampling*. The "snowball" analogy comes from the fact that the snowball increases in size as it rolls down the hill (Given, 2008). In this study, snowball sampling meant that the questionnaire was distributed to a much wider range of participants than the researcher would have been able to access by other means. It also meant that often two to three participants came from the same school, helping to build up a fuller picture of their

school. Although this is not a random or fully representative form of sampling, it is “a useful way to pursue the goals of purposive sampling in many situations where there are no lists or other obvious sources for locating members of the population of interest” (Given, 2008, p. 816). Two focus groups were conducted within a short range of time. The focus groups were explorative and focussed on both the support that the ECSTs had received in their school, their struggles and successes and the positive contributions that they believed they brought to their schools. Those in a focus group were also questioned about their experience of any Community of Practice they were involved in, if applicable. At the same time, round one interviews commenced with those participants who had agreed in the questionnaire to be interviewed. This was the longest phase of the data collection process.

The third phase of the research involved the second and third round interviews for a smaller group of participants, whilst the questionnaire also remained active. During this time, data that had previously been collected were analysed both statistically and thematically. A summary of the data collection process is provided in Figure 3.2.

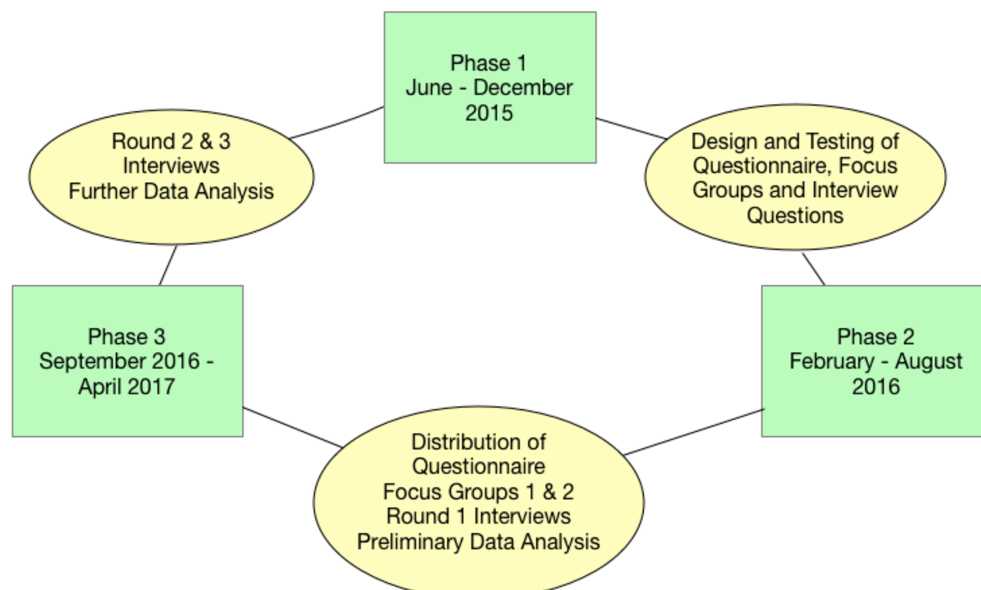

Figure 3.2. Summary of the data collection process

Research Instruments

Three research instruments were created, one using a quantitative approach and two a qualitative approach, as part of a mixed methodology. Each tool drew on the Value Creation Framework developed by Wenger et al. (2011), with some modification to suit the purposes of this research.

Questionnaire

The questionnaire consisted of 23 items. It began with a Participant Information Sheet (provided in Appendix 3) which explained the nature of the research and its purpose. The Participant Information Sheet stressed that completion of the questionnaire was completely voluntary, that the results would be coded anonymously to protect participant identity and that the resulting data would be securely stored.

The formal part of the questionnaire began with six questions covering demographic information (level of teaching; postcode; sector; age-group; years of teaching and subject area). The first question filtered out those who chose *primary teacher*, directing them to the end of the questionnaire, given that the focus of the study was on secondary teachers. The fifth question similarly filtered out those who chose *more than five years* of teaching, given the definition of early career teachers in Chapter 1. The seventh question was a graphic of a smiling face with a sliding scale which invited participants to reflect on how well they felt supported in their school environment. This was chosen in an effort to engage participants. Question 8 followed with six choices about where they might find this support, including finding no support. Participants were invited to click as many sources of support that were applicable. The following question (Question 9) was open-ended, with participants being invited to list other forms of support. The remaining 14 items comprised seven that were structured (fixed response) and seven that were non-structured (open-ended) questions. Of the structured questions, three gathered information about participation in a list of SLSs, whilst four were ranked questions which asked participants to evaluate what they gained from participating in these in terms of their development as a teacher and their professional learning. These questions used a Likert scale ranging from 5 (*Strongly agree*) to 1 (*Strongly disagree)*

for Questions 13 and 15 and 5 (*Very influential*) to 1 (*Not at all influential*) for Question 17 and 19. Two set of items were reverse scored. Opinion varies as to the value of doing this, with arguments that this can lead to participants misunderstanding the question (Swain, Weathers & Niedrich, 2008); however, the researcher sided with the view that reverse scored items help to avoid a tendency for uncritical agreement from participants (Paulhus, 1991; Ray, 1983). The remaining questions were either open-ended questions asking participants for reasons for their responses (Questions 14, 16, 18, 20 and 21) or what benefits they believed they brought to their school as an early career teacher (Question 22). A majority of participants responded to at least one of these open-ended questions. The questionnaire concluded by thanking participants for their participation and offering them a choice to participate in an interview (Question 23). Those who chose this option were asked to provide their name, school and email address.

An example of each type of question and sample statements are provided in Table 3.2 below. The questions aimed to clearly target potential self-efficacy, professional identity and social connection outcomes from participants.

Table 3.2.

Sample questionnaire items

Research Question	Key question	Sample statement
Q.13 Reason for gathering	Why do you participate in these gatherings?	I participate to learn new skills to use in my classes.
Q.15 Self-efficacy	How have these gatherings impacted on you as a teacher?	I am gaining confidence in my ability to engage in my teaching practice.
Q.17 Professional identity	To what extent do the following statements reflect the influence that these gatherings have had on your professional identity?	I feel more inspired by the work I do as a teacher.

Q.19 Social Connection	To what extent do each of the following statements reflect the influence that these gatherings have had on your social connection with other teachers?	I feel less isolated in my teaching practice.

Focus Group and Semi-Structured Interview Questions

The focus Group and semi-structured interview questions were designed in relation to the Value Creation Framework (Wenger et al., 2011) and are provided in Appendix 2. In order to participate in a focus group or semi-structured interview, participants were required to complete a consent form which is provided in Appendix 4. The questions fell into two categories: general questions that aimed to gain a broad understanding of the experience of being an ECST, their struggles and the different types of support they had received, and questions related to participation in various types of CoPs and networks. The questions were also clustered into blocks of questions that related to the research terms of self-efficacy, professional identity and social connection. Examples of the interview and focus group questions are provided in Table 3.3.

Table 3.3.

Sample interview and Focus Group questions

Cycle/Type of Question	Sample Questions
General Questions	• What was it like the first week or two at school? • Where do you look for support at your school?
Question 1 Immediate Value	Tell me about your experience of being involved in a collaborative gathering of teachers at your school: • Have they been fun, inspiring, convivial? • Did you make any new contacts? • How relevant to you are the activities/interactions?
Question 2 Potential Value	How has participating in these gatherings changed you? • Have you acquired new skills or knowledge?

	• Do you feel less isolated? • Do you trust them enough to turn to them for help?
Question 3 Applied Value	What difference has participating made to your teaching practice? • Have you used the ideas you heard about in your own classes? • Do you feel your classes have benefitted? • Do you intend to continue participating?
Question 4 Realised Value	What difference has it made to your ability to achieve what matters to you or your school? • Has your participation contributed in any way to how you are viewed within your school community?
Question 5 Reframing Value	Has it changed your or your school's understanding and definition of what matters? • Do you have a better understanding of your identity as a teacher through attending these gatherings?
General questions	• What particular benefits do you believe you bring to your school?

Data Collection

Data were collected over a 15-month period in three phases, as previously illustrated in Figure 3.2. This included data collection from focus groups (x 2), an online questionnaire (x 107) and semi-structured interviews (x 49).

Questionnaire

Questionnaires, and in particular, online questionnaires, are a very popular choice for data collection amongst social researchers, having the advantages of being able to reach a larger audience that is widely distributed geographically and being financially viable and quickly delivered (Nulty, 2008; Sue & Ritter, 2007). Further, participants are arguably more likely to respond honestly in an anonymous situation, as opposed to an interview or

focus group (Keen Wong, 2012; Norton, 2010). However, the very fact that online questionnaires are so popular is also a disadvantage, in that people tend to get overloaded with too many questionnaires coming to their inbox and, consequently, fail to respond. Nulty (2008), in his review of data related to questionnaire responses, found that online questionnaires had a significantly lower response rate than paper questionnaires, with return rates ranging from 20% to 47%. In an effort to maximise return rates, he suggests using multiple methods to distribute the questionnaire and to take particular care in designing the questionnaire to make it appealing to participants.

In this study, the questionnaire was distributed through a wide range of channels but predominately through social media sites (Twitter, Facebook and LinkedIn[19]). The Facebook sites included *Surviving Casual Teaching*, *Education Change Makers* and *TeachMeet NSW* and the *Teach for Australia* website. Further distribution channels included Twitter chats such as AussieEd, the Wikispace of TeachMeet Melbourne and the website of Teach Connect. Promotion of the questionnaire also occurred at educational conferences that the researcher attended and through official school channels. A snowball sampling process, as described earlier in this chapter, was used whereby those who responded were asked to further distribute the questionnaire to their contacts and key Twitter contacts were asked to share it with their ECST contacts. This lack of randomisation during subject selection is likely to have influenced results, presenting a limitation of the research. However, it also had the advantage of extending the range of participants across most states of Australia, capturing participants beyond the researcher's own contacts. In addition, the subjective influence of the researcher in this technique was significantly less compared with the other two methods.

The questionnaire was attempted by more than 170 respondents. The criteria of being a secondary teacher and having teaching experience of no more than five years precluded some respondents resulting in a total of 107 participants. Of these, more than half were from Victoria, the remainder

[19] LinkedIn is an online professional network with a large following.

from Queensland, Western Australia, New South Wales and Tasmania. There was a spread of age groups in the questionnaire; however, the majority of participants were under 30 years of age. It is interesting to note that 27% of participants were over 30 and were considered mature-aged, again reflecting the trend towards career change mentioned earlier. The majority of participants were in their first two years of teaching. Further demographic details are provided in Chapter 4 and in Appendix 6c. The questionnaire was analysed both quantitatively and qualitatively, since both open and closed questions were used.

Focus Group

Data were collected from two different focus groups. The focus group method was chosen as it has the advantage of providing the collegial support of a group which might encourage people to express their opinions who might be hesitant to do so individually (Liamputtong, 2011; Tynan & Drayton, 2007). In addition, focus groups provide more than just the sum of each person's response to the researcher. The group aspect encourages interaction between the participants, giving them the opportunity to ask questions of each other and comment on each other's responses (Kitzinger, 1995). In each of the two focus groups there was considerable interaction between participants, facilitated by the fact that the groups were conducted in school settings and, in each case, the participants knew each other, at least superficially. The disadvantages of focus groups include the fact that quieter participants may not get much of a say or voices dissenting from the group norm might be silenced (Kitzinger, 1995). It could also be argued that deeper, more personal responses that might arise in an interview setting, might not be as easily shared in the less private situation of a focus group. However, in this study, as the participants were familiar with each other, a relaxed and congenial setting was easily achieved in each instance.

The first focus group consisted of ECSTs who were at the researcher's own school. This was a limitation in that the researcher knew the participants to some degree. However, the advantage was that the participants were possibly more relaxed and open than they might have been with an unknown researcher or in an unfamiliar environment. Participants

were purposively selected on the basis of being in the first five years of their teaching career and were approached face-to-face or by email by the researcher. Marshall (1996) suggests that purposive sampling is an appropriate choice for researchers as these participants have the potential to provide a richer understanding of the phenomenon being investigated than if participants were randomly sampled. Hennink (2007) maintains that ideally focus groups should consist of between six to eight participants to allow enough scope for each person to have adequate opportunities to speak, whilst providing enough diversity of input. Whilst there were only five participants in this focus group, this did not appear to detract from the quality or breadth of discussion, possibly because participants knew each other, were a mixture of younger and mature-aged ECSTs and were significantly invested in the topic being discussed. The second focus group involved ECSTs who were involved in a school that was purposively selected for its establishment of Communities of Practice. Contact was made with the school Principal, who then gave approval to Leader 3 (L3) to invite six participants to be involved in the focus group. The researcher travelled to this school in rural Victoria and spent two days there, both to gain an intimate understanding of the setting (Holloway & Wheeler, 2002) and to speak with key personnel, as well as conducting the focus group and interviewing other participants. Whilst those in the second focus group did not know the researcher, the fact that they were in the familiar environment of their school and had been approached by L3 to be part of the group, appeared to help them feel more relaxed. Each of these two focus groups was held in a room where participants could sit around a large table and clearly see each other and the interviewer (the researcher). In the first focus group, refreshments were provided to assist in creating a relaxed and conducive atmosphere. The focus group sessions each lasted from between 45 and 60 minutes and were recorded with the online software program, Audacity. Recordings were later downloaded to Nvivo as an audio file and transcribed by the researcher.

Semi-Structured Interviews

A total of 49 teachers agreed to be interviewed as a result of completing the questionnaire. The majority of participants were female (females:32; males:17) and each sector had a good representation, with a slightly higher numbers of Catholic school participants. As participants chose whether or not they wished to be interviewed, there was no control by the researcher over the skewed gender and sector data. The age of participants was spread across the four possible age groups—less than 25; 26–30; 31–35 and older than 35—with a majority of younger teachers, similar to what was evident in the questionnaire. As with the questionnaire, there was a sizeable group of mature-aged participants who agreed to be interviewed, possibly reflecting their increased confidence or maturity in putting themselves forward. Teaching subjects were relatively evenly spread over the four main areas of Humanities, STEM (Science, Technology, Engineering and Mathematics), English and Other (which included Visual and Performing Arts, Religious Education, Special Education, Physical Education and Languages). Demographic details for interview participants can be found in Chapters 5 and 6.

Whilst some interviews were conducted face-to-face, the majority were by Skype or by phone as participants were geographically spread out. The interviews were recorded either with the computer-assisted software program Audacity or the Skype recorder and then loaded into the survey software program, Qualtrics. The fact that the majority of semi-structured interviews were conducted either by phone or by Skype had particular implications. Lo Iacona, Symonds, and Brown (2016) point to the value of Skype for researchers to “transcend geographical boundaries, by nullifying distances and eliminating the need to visit an agreed location for interview” (p. 5), whilst Deakin and Wakefield (2013) highlight the fact that Skype allows for otherwise inaccessible participants to be interviewed. In the context of this study, the researcher was able to interview participants in rural Victoria, in four different Australian states, all places that would have taken considerable time and money to access for face-to-face interviews. In addition, whilst the social cues that would be part of a face-to-face interview

were not available in the phone interviews, there is the advantage that participants might feel freer to talk. This was the case in the majority of interviews, where participants were open and forthright about their experiences as will be evidenced in Chapters 4 to 6. In some Skype interviews, participants requested that the video be turned off to protect their privacy. Seitz (2016) affirms that it is possible to create "a good research partnership" via Skype, as long as the researcher is careful to ensure that a number of conditions are met, such as a good Internet connection, a quiet environment for the interview and the sustained focus of the researcher in being able to notice the facial expressions of the participant (p. 233). However, if the participant wishes to have the video function turned off or it the interview is by phone, the latter condition cannot be met.

Out of the group of 49 first round participants, a smaller group of seven participants were asked to participate in further interviews over a 15-month period, to provide a fuller picture of their development. They were primarily chosen because of their involvement in a particular type of Community of Practice. This allowed for *thick descriptions* (Holloway & Wheeler, 2002) and researcher immersion in the lived experience of participants. The disadvantage was that this was a time-consuming technique and therefore only a small number of participants could be interviewed more than once.

The Researcher and Reflexivity

The depth of material accessed in the semi-structured interviews was often directly proportional to the depth of trust that the participant felt in the researcher. In fact, Guba and Lincoln (1985) suggest that the researcher is the prime instrument in qualitative data collection and, as such, contributes to the outcomes. Further, Rubin (2005) highlights the importance of the interviewer and the interviewee feeling comfortable with each other in what he refers to as a "responsive interviewing model" (p. 12). This involves the interviewer establishing a relaxed and respectful atmosphere by introducing themselves, listening attentively and without undue bias, and being able to ensure the privacy and anonymity of the data being gathered. In this study, the researcher was the interviewer/facilitator for all interviews and focus

groups. Her extensive and current secondary teaching background and her familiarity with ITE institutions enabled her to quickly establish a relaxed and supportive atmosphere for participants, especially in online situations, and to draw out and extend relevant points from them in a way that might not necessarily have been possible with someone from a different background. In addition, she had a long-term connection with TeachMeet and the social media sites that were included in the study, such as Facebook and Twitter. She was female, as were the majority of the participants, and had prior experience in conducting interviews through her Masters research study. A small percentage of participants knew the researcher prior to their interview or focus group, but the majority did not. However, all interview and most focus group participants had completed the questionnaire prior to completing the interview and so were familiar with the aims of the study and the researcher's reasons for conducting it. As the researcher was closely engaged with participants, particularly those who were interviewed three times over a 15-month period, it was impossible to completely avoid personal bias, which is a limitation. However, every attempt was made to minimise the researcher's questions and comments and to allow participants to speak freely as much as possible. Saved audio interviews were transcribed verbatim to avoid any bias or inaccuracy that might occur with other methods such as taking notes (Tong, Sainsbury, & Craig, 2007).

An interpretivist/constructivist style of interview, as was used in this study, is also flexible and adaptive. As Rubin (2005) suggests, "The researcher's self-confidence, adaptability, and willingness to hear what is said and change direction to catch a wisp of insight or track down a new theme are what make responsive interviews work" (p. 18). In practice, this meant that although there was a set of questions prepared in advance for the interviews, it was not uncommon for other questions to follow on from participants' responses. This had the effect of generating a rich dialogue that might not otherwise have been achieved through a strict adherence to a set of questions. In particular, significant information about the role of private Facebook groups emerged in this study, even though this option was not initially envisaged by the researcher, with it not appearing in either the questionnaire items or the focus group and interview questions.

Rich, thick descriptions (Holloway & Wheeler, 2002) and quotations of participant comments were used in the body of this study to enable an authentic account of the experiences of early career secondary teachers. Ryan and Dundon (2008) highlight the importance of the interviewer establishing rapport with participants early in the interview, which then allows the interviewer to uncover "deeper interpretations of social meaning" and "more engaging narratives" (p. 447). This was the case with the data generated in this study, with participants frequently speaking at length about their experiences and revealing personal details that they might not have been revealed had their level of trust in the researcher and her assurance of privacy and anonymity not been as strong.

Validity

In terms of validity, a mixed methodology has a number of advantages over the exclusive use of quantitative or qualitative methodologies. Fielding (2012) articulates three key reasons for using this type of methodology, one of which is validity. He suggests that this relates to the way different data sets can be compared, to either complement or disconfirm each other, and to ultimately provide a fuller picture of a phenomenon. Triangulation or convergent validation is defined as the use of two or more methods of data collection to research the same question (Walford, 2002). Golafshani (2003) maintains, "engaging multiple methods, such as observation, interviews and recordings will lead to more valid, reliable and diverse construction of realities" (p. 604). This approach is supported by software, such as NVivo 11, that was used in this research, that allows for questionnaire responses to be systematically matched with corresponding interview data (Fielding, 2012). However, triangulation is not without its critics, who argue that different methodologies have different epistemological assumptions behind them, which do not necessarily gel with each other. Fielding (2012) points to the need for a clear rationale and a considered research design that "knows when to synthesise some findings—because they are equivalent and commensurate—and when to respect and investigate contradictory findings—because the contradiction reflects epistemologically based differences that cannot be resolved empirically, only conceptually" (p. 125).

Validity in a mixed methodology is two pronged. For the quantitative data of the questionnaire, internal validity was established in a number of ways:

- The questionnaire was constructed using the Value Creation Framework of Wenger et al. (2011) which continues to be extensively tested and utilised internationally in organisational and knowledge management fields, enhancing its internal validity.
- The questionnaire was analysed by an Exploratory Factor Analysis (EFA) which largely confirmed the structuring of the questions. The reliability of each of the factors was tested and found to be highly reliable.
- Interview and questionnaire items were designed with the assistance of the Statistical Unit at the University of Southern Queensland and were piloted with a colleague and supervisors.
- Anonymity was preserved for all those who completed the questionnaire, except for those participants who agreed to take part in an interview, in which case, their name and email address was provided.
- All participants and their schools were given pseudonyms to preserve their anonymity.

For the qualitative data of the focus groups and semi-structured interviews, internal validity was established through the following considerations:

- The researcher was a member of the TeachMeet and Facebook communities and a practicing secondary teacher, who had taught in both the State and Catholic systems. This assisted the researcher in accessing the meaning for the participants of the situations they were involved in and the particular issues or difficulties they were dealing with (Maxwell, 2010).
- The researcher was immersed in two of the three exemplar communities through spending one to two days in each community,

informally observing classes and speaking to key personnel. This assisted the researcher in understanding the context of these school communities and to gain a fuller understanding of the history and development of each Community of Practice.

- Each interview and the two focus groups were recorded and transcribed verbatim by the researcher. Maxwell (2010) suggests this is the most appropriate process to deal with the rich data arising from these interactions.
- Prolonged engagement with a smaller group of participants over a 15-month period was achieved.

Of the particular types of triangulation, this research could be considered methodological triangulation in the sense that two different methods were used on largely the same participants. Whilst not all questionnaire participants agreed to interviews, all those who agreed to interviews had previously completed a questionnaire.

Data Analysis

Both quantitative and qualitative methods were used to analyse the data in line with the mixed methodological approach of the study. This included quantitative analysis of the closed questions of the questionnaire and qualitative analysis of the focus group and semi-structured interview transcripts as well as the open questions of the questionnaire.

Quantitative Analysis

SPSS version 22 was used to conduct the statistical analyses for this study. Descriptive statistics, including mean, median and mode and graphical representations of the data, and factor analysis were the two main areas of analysis. Factor analysis operates on the notion that "measurable and observable variables can be reduced to fewer latent variables that share a common variance and are unobservable, which is known as reducing dimensionality" (Yong & Pearce, 2013, p. 80). Essentially, it involves reducing the number of variables in a data set by seeing how they relate to each other (Bartholomew, Knott, & Moustaki, 2011). Whilst the items in the

questionnaire had been adapted from the Value Creation Framework, it was the researcher who had clustered them in groups with the aim of evaluating the self-efficacy, professional identity and social connection that participants gained from belonging to a CoP or network. As this grouping process had not been formally verified, it was determined that a factor analysis would be a means of more objectively grouping the data and confirming or disproving the researcher's choices.

As the majority of questions in the questionnaire were in the form of a Likert scale, consideration was given to whether only non-parametric or both parametric and non-parametric tests could be used to analyse these questions. This is a contentious area of analysis, depending on whether the Likert data are considered as ordinal or interval data. It is argued that the relative magnitude between responses in Likert scales is not necessarily uniform, therefore making it not necessarily appropriate to use parametric analysis (Brill, 2008; Joshi, Kale, Chandel, & Pal, 2015). Others, such as Lubke and Muthén (2004) were able to successfully use Likert scales with the parametric tool of factor analysis. The researcher sided with the latter view, in applying an Exploratory Factor Analysis (EFA) with Principal Component Rotation (PCR) to the Likert scale data of the questionnaire. EFA rests on the assumption that the range of variables that might arise out of a set of data can be reduced to a smaller number of underlying variables that share a common variance. Bartholomew et al. (2011) hold the view that doing this enhances our ability to see more clearly the structure in the data. Factors are rotated to visually assist with interpretation (Yong & Pearce, 2013). Two Rotated Component Matrices are provided in Appendix 7 – the initial one (Appendix Table 7a) and the final one (Appendix Table 7b). William, Brown, and Onsman (2010) propose a five-step protocol for approaching EFA analysis:

i. Are the data suitable for factor analysis?

ii. How will the factors be extracted?

iii. What criteria will assist in determining factor extraction?

iv. Selection of rotation method;

v. Interpretation and labelling. (William et al., 2010, p. 4)

The way this five step protocol was followed is outlined below:

i. **Are the data suitable for factor analysis?** A number of assumptions were tested using SPSS procedures to determine the suitability of the data (*n* = 107) for factor analysis, including checking for outliers[20] and suitability of participants and testing collinearity[21] and homoscedasticity[22] assumptions.

- *Outliers*: It is important that there is an absence of univariate and multivariate outliers in a data set (Field, 2013). Multivariate outliers were tested by calculating the Mahalanobis distances[23] for each participant. Five cases were eliminated due to having values below the cut-off point (p <= .01) and there being a natural break in the distances between the 5th and 6th largest Mahalanobis distances at this point. A sample size of 102 participants remained after these deletions.

- *Suitability of participants*: Fifteen of the 23 questions in this analysis relied on the fact that a participant belonged to a Community of Practice or network. In questions 11 and 12 of the questionnaire participants were asked if they belonged to one or more of five different Communities of Practice or networks (a school-based community, TeachMeet, Teach/Tech/Play, Teach Connect and Aussie Ed) and how many gatherings they had attended. Those who indicated that they did not belong to any of these types of CoPs (Q.11) and/or those who indicated they had not attended any

[20] A univariate outlier is a data point that consists of an extreme value on one variable. A multivariate outlier is a combination of unusual scores on at least two variables. Both types of outliers can influence the outcome of statistical analyses. Retrieved from www.statisticalsolutions. com/univariate-and- multivariate-outliers.

[21] Collinearity is means of assessing how closely correlated two or more variables are.

[22] Homoscedasticity is a means of assessing the variance of a sample.

[23] Mahalanobis distances calculate the distance of particular scores from the centre cluster of remaining cases in a sample.

gatherings in their nominated community (Q.12) did not meet the eligibility requirements for this part of the analysis. After cross-checking qualitative data for these participants, a further 9 participants were eliminated, leaving a final sample size of 93 participants.

- Collinearity was assessed, providing all Variance Inflation Factors (VIF) below the recommended level of 10 and tolerance levels above 0.1 apart from Q.15_3 which was borderline (VIF = 10.239; Tolerance = .098), thus marginally satisfying this assumption (O'Brien, 2007).
- *Homoscedacity* was checked and since the residual plot showed a pattern-less scatter of points, this assumption was satisfied.
- *Correlation statistics*: Inspection of the correlation matrix showed that all variables had at least one correlation co-efficient greater than .3 and none larger than .9. The overall Kaiser-Meyer (KMO) measure was 0.817, indicating the data (n = 93) were sufficient for EFA and, in fact, a "meritorious" score according to Kaiser's classification of scores (Kaiser, 1974). Barlett's test of sphericity, χ^2 (253) = 1392.323, p < .001, showed that there were patterned relationships between the items.

ii. **How will the factors be extracted?** An EFA, using Principal Component (PC) extraction and a varimax rotation was initially performed on the 23 Likert Scale variables from the questionnaire.

iii. **What criteria will assist in determining factor extraction?** The initial EFA indicated the possibility of six factors using the commonly used cut-off of eigenvalues greater than 1.0 with each respectively explaining 25%, 14%, 12%, 10%, 9% and 6% of the total variance. Together, they accounted for 74% of the total variance. Details are provided in Appendix Table 7a. A parallel factor analysis, following on from the EFA, indicated that only the first three factors should be retained. In particular, as the Q.13 variables did not appear to form a distinct factor or to load onto the

other factors, a decision was made to consider these variables separately with the use of descriptive statistics, resulting in a 17-variable sample. The assumption of collinearity was re-assessed with the 17-variable sample resulting in all VIF values being below the recommended level of 10 and tolerance levels above .1. The homoscedastic assumption was re-checked and continued to show a residual plot with a pattern less scatter of points, thus again satisfying this assumption.

iv. **Selection of rotation method -** Finally, a second EFA with a varimax rotation was conducted with the remaining 17 items. The EFA indicated the possibility of three factors using the commonly used cut-off of eigenvalues greater than one with each explaining 33%, 20% and 16% respectively of the total variance and jointly accounting for 69% of the total variance. Component loadings and communalities of the rotated solutions are provided in Appendix Table 7b.

Interpretation and labelling. A summary of item details of the three components are provided in Table 3.4. Labels were allocated to each component by the researcher, based on their links with self-efficacy, professional identity and social connection in the original questionnaire items.

Table 3.4.

Components and their items (n=17)

Component	Items
1.Self-efficacy	15-1;15-2;15-3;15-4;15 5;15-6;15-7;15-8 (8 items)
2.Professional identity	17-1; 17-2; 17-3; 17-4; 17-5 (5 items)
3.Social connection	19-1; 19-2; 19-3;19-4 (4 items)

The internal consistency of the items in each component was examined using Cronbach's alpha test. The alphas were strong: .94 for self-efficacy, .78 for professional identity and .9 for social connection. These were all above the recommended values of .7 or higher (DeVellis, 2003;

Kline, 2005). No substantial increases for any of the scales could have been achieved by eliminating further items.

Qualitative Analysis

The open-ended questions from the questionnaire, along with the focus group and interview data were loaded into the software program, Nvivo, and analysed thematically. A method well suited to qualitative research, the analysis involves six phases recommended by Braun and Clarke (2006): familiarity with the data; generation of initial codes; searching for themes; reviewing themes; definition and naming the themes, and production of the report. The advantage of using a tool such as Nvivo is that it reduces human error and allows for searches, through the creation of nodes that assist in establishing relationships between different themes. Familiarity with the data occurred through the researcher personally conducting and transcribing each of the interviews, affording a familiarity with the participants involved and their particular contexts. A thorough reading and re-reading of the data assisted in identifying initial codes. An example of the coding that was used is provided in Table 3.5.

Table 3.5.

Interview data coding (from thematic analysis)

Code	Description and example
Self- efficacy	Those demonstrating self-confidence and assurance in their teaching practice • Yes, to be honest, I've learnt so much leadership skills and delegation skills through it. It's just been a baptism of fire.
Professional Identity	Those indicating a stronger sense of themselves as a teacher • Yes, I think so. I think, my experience of leadership here is that in my second year I was given, the opportunity to apply for the role of the head of department.
Social Connection	Those demonstrating the degree of social connection they have experienced • And so if you felt that there was something you didn't know what to do, you could go to them, could you, the people in your Facebook group.

A total of 15 nodes were initially created in Nvivo, several with subsumed codes. For example, “Struggle” included: Being Taken Advantage of; Challenging Environment; Contract Difficulties; Dashed Expectations; Distance Issues; Isolation; Lack of Feedback; Lack of Support; Overwhelming; Part-Time issues; Poor Curriculum Documentation; and Registration Issues. The 15 nodes were later collapsed into eight nodes: Mentor Pros and Cons, Positive Advantage of being an ECST, CoP Pros and Cons, Professional Identity, Self-Efficacy, Social Connection, Struggle or Difficulty and TeachMeet. Further details of these findings can be found in Chapters 4, 5 and 6.

Ethical Considerations

This study was conducted with ethical approval from the University of Southern Queensland under the provisions of the Human Research Ethics Committee. Ethics documentation is provided in Appendix 5. This involved approval that the study involving human subjects would be:

- worthwhile and likely to contribute to new knowledge;
- conducted and supervised appropriately;
- protective of the rights of the subjects.

The general principles included:

- informed participant consent;
- voluntary participation and right of withdrawal without sanction;
- confidentiality of participants and records;
- secure storage of relevant data for a minimum period of five years after completion of a research project;
- clear, coherent expression of research proposals;
- regular monitoring of research outcomes.[24]

[24] USQ website, retrieved from https://www.usq.edu.au/)

These principles were addressed in a number of ways. Pre-eminently, this research aimed, at all times, to engender a respectful manner in working with participants, whose privacy and confidentiality was preserved. This was achieved by giving all participants and schools pseudonyms. Written, informed consent was acquired from each interview participant, whilst consent was considered tacit for those participants who completed the questionnaire. As many of the interviews in this study were conducted by phone or Skype, there was also a particular need to ensure that privacy and anonymity came into play right from the start of the interview. This was highlighted by the fact that a number of teachers needed reassurance that their school would not be mentioned in the data and with some of those being interviewed on Skype, requesting that the video functioning of Skype not be used.

For security reasons, the data were stored in CloudStor+ at the University of Southern Queensland.

Limitations

The significance of the findings in this study is limited by the relatively small sample and the illustrative, rather than non-random, aspect of sampling. However, this is compensated for, to some extent, by the rich insights into the experiences of early career secondary teachers that the methods used provided, and which allowed the voice of these teachers to be heard. Further, this study purposively accessed teachers involved with relatively undocumented phenomena such as TeachMeets and social media communities such as private Facebook groups. A more random approach to data collection may not have been able so easily to target these groups.

Conclusion

This chapter has considered the research design and methodology of this study. It has included a consideration of the interpretivist framework that underlies the study and the theoretical justification for the mixed methodology that was utilised. The chapter has also described the three different data collection tools that were developed and distributed. The qualitative and quantitative methods that were used to analyse the data were

also discussed, as well as ethical considerations and the role and reflexivity of the researcher. Data generated in the study and its interpretation are presented in the following Chapters 4, 5 and 6.

Chapter 4 Negotiating Oz: The World of the Early Career Teacher

I thought I had beaten the Wicked Witch then, and I worked harder than ever; but I knew how cruel my enemy could be.
(Baum, 2015, p. 26)

In this chapter, findings about the world and experiences of the participants in this study, Australian early career secondary teachers (ECSTs) in 2016–7, are reported. The first part of the chapter presents the quantitative findings from the questionnaire responses (*n* = 107). This helps to paint a picture of the landscape of the ECST world and to highlight the factors that might contribute to the significant attrition rates of ECSTs (reported in Chapter 1). It also includes a broad perspective on the kind and level of support they might or might not have experienced through induction processes, mentors, Communities of Practice and/or other Social Learning Spaces, including networks such as TeachMeet and online sources such as private Facebook groups and Twitter PLNs. In the second part, the qualitative data from the semi-structured interviews (*n* = 49) and the two focus groups are provided. Similar to the quantitative data, evidence of the struggles ECSTs face with issues such as the casualisation of the workforce and under-employment and variable support from their schools is presented. The semi-structured interviews that formed a large part of this research provided a privileged arena for listening to the stories of the ECST participants and allowed the researcher to gather rich data about their hopes and dreams, their struggles and disappointments (Rubin, 2005; Holloway & Wheeler, 2002).

This chapter consists of seven sections which are displayed in Figure 4.1. After the introductory section, demographic details of participant backgrounds from the questionnaire data are discussed. This is followed by a quantitative analysis of the questionnaire data and a qualitative analysis of focus group and interview data related to early career teacher support. The concluding sections consider particular issues facing ECSTs as well as the advantages of being an ECST that participants reported.

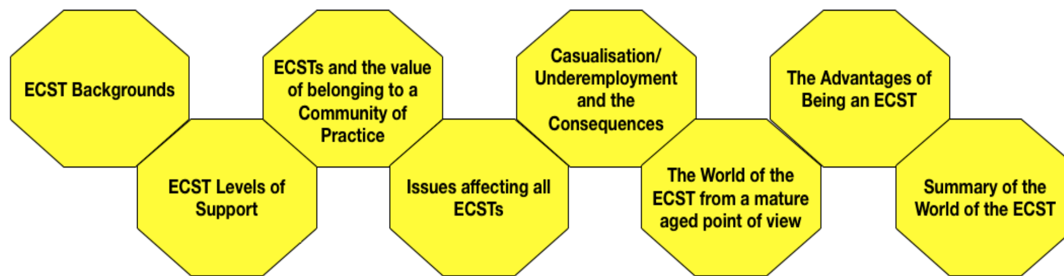

Figure 4.1. Outline of Chapter 4 Negotiating Oz

Early Career Secondary Teacher Backgrounds

Key demographic features of the 107 early career secondary teachers who participated in the questionnaire are provided in Tables 6a and 6b in Appendix 6. They include the fact that participants came from five different states in Australia, where they had either ongoing or casual relief teaching positions. Each of the three Australian sectors, State, Independent and Catholic, were spread reasonably evenly within the sample (40%, 26% and 34% respectively). Participants had a range of levels of teaching experience from zero to five years, with the majority of participants being in their first two years of teaching (n = 75, 70%). Their age groups varied from 25 years and under to over 35. Not surprisingly, the largest group of participants was those who were 30 years of age or younger (n = 78, 73%) many of whom were in their first or second year of teaching. Approximately a quarter of participants (n = 29, 27%) were older than 30 years old. Although not necessarily being representative of the whole ECST population in Australia, this might indicate a possible trend of mature-aged people taking on a teaching role after involvement in an earlier career. McKenzie et al. (2014) highlight a steady increase in the last twenty years of the number of mature-aged individuals entering the teaching profession in Australia as a second career. These participants formed an interesting sub-group within the study, illustrating particular advantages and disadvantages of being in this situation which will be discussed further later in this chapter.

Finally, in terms of background, participants came from a range of subject areas with the majority of participants coming from either a STEM (Science, Technology, Engineering and Mathematics) (36%) or Humanities (25%) background, with smaller representations in the other subject areas.

Early Career Secondary Teachers and Levels of Support

A total of 107 ECSTs fully completed the questionnaire which asked them in Question 7 to evaluate the level of support they felt they experienced in their school by dragging a slide to create a smiling, neutral or unhappy face. This was a key question. It generated a 5-point score ranging from a full smile (5) (*very good*) to a very sad face (1) (*very poor*). The results of this question, which were cross-tabulated with each of the three sectors (Table 4.1) suggested a difference in the level of support that participants experienced from their schools in different sectors. Whilst all sectors had participants experiencing some measure of *very good* support, the Catholic and Independent school sectors each had approximately a third of their participants in this category, compared with less than half of this proportion in the State school sector. In addition, the State school sector recorded 9% of participants experiencing *very poor* support, compared with 4% and 0% in the Independent and Catholic school sectors respectively.

Table 4.1.

Cross tabulation of level of support by sector (*n*=107)

	State		Independent		Catholic	
Rating	*n*	%	*n*	%	*n*	%
Very Good	6	14.0	9	32.1	12	33.3
Good	17	39.5	10	35.7	17	47.2
OK	11	25.6	2	7.1	4	11.1
Poor	5	11.6	6	21.4	3	8.3
Very Poor	4	9.3	1	3.6	0	0.0
Total	43	100.0	28	100.0	36	0.0

A Kruskal-Wallis H test[25] was conducted to determine if there were statistically significant differences in the distributions of level of support

[25] The Kruskal-Wallis H test (sometimes also called the "one-way ANOVA on ranks") is a rank-based nonparametric test that can be used to determine if there are statistically significant differences between two or more groups of an independent variable on a continuous or ordinal dependent variable. (Retrieved from https://statistics.laerd.com/spss-tutorials/kruskal-wallis-h-test-using-spss-statistics.php)

between the three sector groups: "State" (n = 43), "Independent" (n = 28) and "Catholic" (n = 36). Preliminary analysis revealed that the distributions of support scores were not similar for all groups, as assessed by visual inspection of a stacked bar graph. The mean ranks[26] of *support* scores were statistically significantly different amongst the four age groups, χ^2 (2) = 7.392, p = .025. The mean rank score for the State School participants was 45.14, for Independent Schools 55.89 and for Catholic Schools 63.11. Subsequently, pairwise comparisons were performed using the procedure of Dunn (1964) with a Bonferroni correction for multiple comparisons. This post hoc analysis revealed a statistically significant difference in support scores between the Catholic sector (mean rank = 63.11) and the State sector (mean rank = 45.14) (p = .021) only. No other pairwise comparisons were statistically significant. The reason for this statistically significant difference is not immediately apparent, although it could be related to variable levels of school funding and access to finances across the sectors. As this sample was relatively small, as mentioned earlier, further investigation with larger samples is recommended to see if this difference in levels of support across the three sectors in Australia can be confirmed.

A cross-tabulation of the four age groups with level of support (Table 4.2) indicates that a smaller percentage of ECSTs chose *very good* support in the over 35-year-old age group (5.3%) compared with the other three age groups (28.6–33.3%). Further, 15.0% of this mature-aged group indicated that they had experienced *very poor* support compared with .0% to 2.8% in the other three age groups. That these older participants experienced significantly less support than each of the other age groups will be further verified in the qualitative comments from participants later in this chapter.

[26] Mean rank consists of assigning the average of the ranks as the rank for the common frequency.

Table 4.2.

Cross tabulation of levels of support by age group (n = 107)

Age Group	<25		25–30		31–35		>35		Total	
Rating	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Very Good	11	30.6	12	28.6	3	33.3	1	5.30	27	25.2
Good	15	41.7	20	47.6	4	44.4	5	25.0	4	41.1
OK	4	11.1	8	19.0	2	22.2	3	15.0	7	15.9
Poor	5	13.9	1	2.4	0	0.0	8	40.0	3	13.1
Very Poor	1	2.8	1	2.4	0	0.0	3	15.0	5	4.7
Total	36	100	42	100	9	100	9	100	107	100

A Kruskal-Wallis H test was conducted to determine if these observed differences in level of *support* amongst the four age groups were statistically significant. Distributions of *support* scores were not similar for all groups, as assessed by visual inspection of a stacked bar graph. The mean ranks of *support* scores were statistically significantly different amongst the four age groups, χ^2 (3) = 17.907, p =.000. The mean rank score for the 25 years or less participants was 58.03, for 26–30 year-old participants 60.42, for 31–35 year old participants 63.56 and over 35 year old participants 28.98.

Subsequently, pairwise comparisons were performed using the procedure of Dunn (1964) with a Bonferroni correction for multiple comparisons. This post hoc analysis revealed statistically significant differences in *support* scores between the *older than 35* age group (mean rank = 28.98) and each of the other age groups: *25 or less* age group (mean rank = 58.03) (p = .003), the *26–30* age group (mean rank = 60.42) (p = .001) and the *31–35* age group (mean rank = 63.56) (p = .021). No other statistically significant differences were found in any of the other pairwise comparisons.

The levels of support experienced by each of the three groups of years of teaching experience can be seen in the cross-tabulation data of Table 4.3. This table does not appear to display the same degree of variation amongst the different groups of levels of teaching experience as the other categories

did. In contrast to the previous graphs and discussion, those who had been teaching longer (3-5 years) did not appear to display any disadvantage in terms of their experienced level of support. In fact, they appeared to experience less *very poor* support or *poor* support (3.3%, 12.5%) compared with those who had been teaching for less than one year (4.9%, 17.1%). These low counts for the youngest age group would tend to point more to the *praxis shock* (Ballantyne, 2007*)* that beginning teachers are likely to experience. What is more cause for reflection is the double effect that mature-aged beginning teachers might experience in dealing, not only with praxis shock, but with a low level of support for them in the schools they find themselves in. This will be validated in the qualitative data that follows later in the chapter.

Table 4.3

Cross tabulation of levels of support by years of teaching experience

(*n* = 107)

Years of Teaching	< 1 year		1–2 years		3–5 years		Total	
Rating	*n*	%	*n*	%	*n*	%	*n*	%
Very Good	10	24.	11	32.4	6	18.8	27	100
Good	15	36.	12	35.3	17	53.1	44	100
OK	17	2.4	6	17.5	4	12.5	17	100
Poor	17	2.4	3	8.8	4	12.5	13	100
Very Poor	2	4.9	2	5.9	1	3.3	5	100
Total *n*/%	41	10	34	100	32	100	107	100

A Kruskal-Wallis H test was conducted to determine if there were significant differences in level of support amongst the three groups of levels of teaching experience: “Less than 1 year” (*n* = 41), “1–2 years” (*n* = 34), and “3–5 years” (*n* = 32). Even though those who had been teaching for longer appeared to experience less support, the mean ranks of *support* scores were not statistically significantly different amongst the three groups.

Participants were then asked to indicate where they found support, with the option of ticking as many options as they wished from a list of six options (including “no support”). Table 4.4 indicates that the strongest source of support for participants was their staffroom/office teachers (70.1%) followed by other teachers in their subject area (63.6%). This suggests that carefully allocated staffroom/offices, possibly along subject lines, can be of great benefit to ECSTs, especially in larger schools, where they can often be geographically isolated from those who might best be able to help them. As mature-aged participant, P43, reflected:

> I felt very supported because of the staffroom that I was in and the people within that staffroom. They all took ownership of me. They all helped me out and it gave me the confidence that I needed to do my job, basically.

Similarly, P25 reflected, “Well I mostly get most of my support from my teachers in my staffroom—we are very close knit.” It is interesting to note that casual relief teachers, who do very short term blocks, do not generally get allocated a staffroom/office. This consequently deprives them of a valuable source of support that their ongoing or longer term peers take for granted, potentially illustrated by the 4.7% of ECSTs who felt that they had no sources of support. Table 4.4 also reveals that just under a third of the participants (32.7%) were in a school where there were collaborative teacher groups in which they found a source of support. A similar sized group of ECSTs (31.8%) found support from outside groups. These relatively low figures point to the main question guiding this research as to how much support schools and outside groups are giving teachers to develop their professional identity, self-efficacy and social connection through belonging to a CoP. Although these figures are not statistically significant, they do suggest that there is a great need for schools to be more pro-active in fostering collaborative initiatives both within and beyond the school.

Table 4.4.

Descriptive statistics: Sources of support (%) (n = 107)

Source of support	Agreement (%)
My staffroom/office teachers	70.1
Other teachers in my subject area	63.6
My mentor at school	41.1
A collaborative group of teachers outside of my school or online	31.8
No support available	4.7

Participants were then asked to evaluate how effective these forms of support had been (Table 4.5). For those in their second or more year of teaching, they were asked to think back to when they first started for the induction and mentor items. Table 4.5 reflects a similar pattern to Table 4.4, with staffroom/office teachers (mean 65.93; median 70.00) and "Other teachers in my subject area" (mean 64.24, median 73.00) again appearing as the most effective forms of support for participants. Interestingly, only half of the participants in this study found their induction was effective (median 50.00) and just over half found their mentor was effective (median 53.00). This could be explained by the fact that a number of teachers in this study were casual relief teachers, reflecting the findings of AITSL (2017c) that only 17% of casual teachers in their graduate survey were given a formal induction. Further, AITSL (2017c) found that only one in two (49%) of ECSTs who were in contract or ongoing positions in schools received a formal induction when they commenced as a beginning teacher. This is information which will be discussed further in Chapters 7 and 8.

Table 4.5.

Descriptive statistics: Effectiveness of support (n = 107)

Source of support	Mean	Median
My staffroom/office teachers	65.93	70.00
Other teachers in my subject area	64.24	73.00
A collaborative group of teachers at my school	52.12	59.00
My mentor at school	51.17	53.00
A collaborative group of teachers outside of my school or online	43.97	50.00

It is evident from Tables 4.4 and 4.5 that access to the support of mentors and having access to induction programs was only available to just over half of the participants in this study. This suggests that the attention given in schools to making induction and mentoring effective and desirable for beginning teachers is variable. AITSL (2016a) in their report *Graduate to proficient: Australian guidelines for induction into the profession* stress the importance of a mentor for an early career teacher's professional learning: "Of all the induction strategies available, practice-focused mentoring by one or more expert colleagues, is particularly powerful in supporting the transition from Graduate to Proficient career stage" (p. 1). These low figures perhaps also suggest that some ECSTs might have mentors but they do not rank amongst the sources of support for them, which begs the question of how much thought schools put into training mentors and allocating mentors to graduate teachers. Although not conclusive, these figures also hint at the increasing casualisation of the work force that will be discussed later in this chapter, where short block casual relief teachers are often unlikely to be given a mentor or induction.

Other sources of support mentioned by participants included: heads of faculty, school leadership teams, friends who were also teachers, online teacher support including Facebook and Twitter, previous mentors, educational books and websites, professional counselling services, unions, partners, family, other teachers and subject associations.

Figure 4.2. Other sources of support for ECSTs

Early Career Teachers and the Value of Belonging to a Community of Practice

Further results from the questionnaire related to the value ECSTs gained from belonging to particular communities. As reported in Chapter 3, data were screened for its suitability resulting in a sample of 93 participants who indicated by their responses that they had been involved in a Social Learning Space such as their school CoP or outside networks such as TeachMeet, Teach Connect, Teach/Tech/Play and Aussie Ed. Two types of analysis were conducted with this sample. The first analysis used descriptive statistics with responses to Q. 13, which was excluded from the factor analysis. It asked participants why they participated in the gatherings listed above. A 5 point Likert scale was used ranging from *Strongly Agree* (5) to *Strongly Disagree* (1). Table 4.6 presents the top three results, indicating that the main reason ECSTs participate in these communities is to be inspired by innovative teachers (mean = 4.27) and to learn new skills to use their classes (mean = 4.05). These are very strong means indicating the importance that ECSTs place on opportunities to listen to and observe innovative teachers to gain new ideas they can use in their classes. This will be further supported by the qualitative results in Chapters 5 and 6.

Table 4.6

Descriptive statistics: Reasons for participating (n = 93)

Item	Mean	Standard Deviation
I participate to be inspired by innovative teachers	4.27	.874
I participate to learn new skills to use in my classes	4.05	.996
I participate to have a chance to present my ideas to the group	3.38	.996

The second analysis, the factor analysis, the results of which are provided in Appendix 7, was used as a means of validating and refining the categories that had been created from the Value Creation Framework (Wenger et al., 2011) and to see how they inter-related. Three Components

were isolated which largely reflected the structure of the questionnaire (with the exclusion of Q.13 which did not correlate with the other questions) and which the researcher named as follows:

- Component 1 (Self-efficacy): Questions 15_1; 15_2; 15_3; 15_4; 15_5; 15-6; 15_7; 15_8 (8 items)
- Component 2 (Professional Identity): 17_1; 17_2; 17_3; 17_4; 17_5 (5 items)
- Component 3 (Social Connection): 19_1; 19_2; 19_3; 19_4 (4 items).

Each component was analysed to determine if the value of the component was different for different groups, including the three different sectors (State, Independent and Catholic), the four age groups (Less than 25, 26–30, 31–35 and Older than 35) and the three groups of levels of teaching experience (Less than 1 year, 1–2 years, 3–5 years). A summary of mean scores for each of the Components and these groups are displayed the tables below. The first, Table 4.7, shows the mean scores for each sector cross-tabulated with the three components. It would appear from this table that self-efficacy and social connection were the stronger gains for ECSTs in participating in CoPs in each sector, compared with professional identity. It also appears that the State sector was lower than the Independent and Catholic sectors for both self-efficacy and social connection. This would appear to correlate with the statistically significant finding from earlier in this chapter in regard to the lesser degree of support experienced by State sector participants (Table 4.1). A Kruskal-Wallis H test was conducted to determine if there were significant differences in the mean component scores amongst the three sectors, but there was no statistically significant difference. However, further research with a larger sample might be warranted to determine whether the influence on the gaining of self-efficacy, professional development and social connection from belonging to a CoP is influenced by the sector that you are in.

Table 4.7.

Cross tabulation of mean scores of sector and the three components

	Sectors			
Components (mean scores)	State	Independent	Catholic	Total
n	7	22	34	93
Self-efficacy	3.39	3.81	3.61	3.57
Professional Identity	2.51	2.41	2.61	2.53
Social Connection	3.31	3.41	3.41	3.37

The mean scores of the four different age groups and the three components (Table 4.8) are similar to those in Table 4.7, with professional identity appearing to be consistently lower than self-efficacy and social connection. Also, the older than 35 age group scored slightly lower on each of the first three components, possibly reflecting issues associated with mature-aged ECSTs that were discussed earlier in this chapter. A Kruskal-Wallis H test was conducted but there was no statistically significant difference between the age groups.

Table 4.8

Cross tabulation of mean scores of age groups and the three components

	Age Groups				
Components (mean scores)	<25	25–30	31–35	>35	Total
n	31	35	9	18	93
Self-efficacy	3.54	3.56	3.82	3.51	3.57
Professional Identity	2.52	2.58	2.73	2.31	2.53
Social Connection	3.61	3.30	3.28	3.15	3.37

(Note. Age and years of teaching at the time of Round 1 interviews)

Finally, the mean scores for each group of years of teaching was cross-tabulated with the three components (Table 4.9). This again showed professional identity scoring at a lower level in all years of teaching groups as did the previous two tabulations. Apart from that, there did not appear to

be any consistent patterns of difference so no Kruskal-Wallis H test was warranted.

Table 4.9.

Cross tabulation of years of teaching and the three components

	Years of Teaching			
Components (mean scores)	<1	1–2	3–5	Total
n	32	32	29	93
Self-efficacy	3.48	3.63	3.61	3.57
Professional Identity	2.43	2.53	2.63	2.53
Social Connection	3.27	3.38	3.48	3.37

It is apparent from Tables 4.7- 4.9 that the greatest value that ECSTs appeared to have gained from participating in Communities of Practice is an increase in self-efficacy and social connection, both of which consistently displayed stronger means than professional identity. Further discussion later in the chapter will show that self-efficacy was a high priority in the advantages that participants experienced in their different communities. The consistently lower means for professional identity suggest that these might be more complex skills for ECSTs to develop. Items such as "I have been led to reflect more deeply on what it means to be a teacher" (17_4) and "I have changed my perspective on what it means to be a teacher" (17_5) pre-suppose a more mature disposition that might not come for many ECSTs until they have survived the challenges of their first few years of teaching. Other items in this component, such as "I have been able to encourage others at my school to get involved" (17_2) implies an involvement in an external CoP, which was not the case with the majority of participants. This was a limitation with the questionnaire that these questions were not as relevant to participants who were only involved in a school CoP.

The focus of this chapter now turns to the qualitative data of this study that came from the semi-structured interviews (49), focus groups (2) and written responses in the questionnaire (107). The first part of this section considers the broader findings on issues facing all ECSTs in terms of praxis shock, variable mentoring and induction processes and challenging school

situations. This is followed by the findings on two particular groups of ECSTs who featured strongly in this study: casual relief teachers and mature-aged teachers.

Issues Affecting all Early Career Teachers—Praxis Shock: It's a Daunting Thing Coming into Teaching

As was discussed in Chapter 2, entering the teaching profession is a daunting experience, a phenomenon captured by the terms *praxis shock* and *reality shock* (Veenman, 1984; Dicke et al., 2015). For the ECSTs in this study who were in their first year of teaching, whether as a casual relief or ongoing teacher, this was indeed the case. As P8 reflected, the transition from doing teaching rounds to being in charge of a class was massive:

> But it's a daunting thing to come into teaching. It's such a change from even doing your teaching rounds where you do one class a day, to doing, possibly worst case scenario, six classes a day, all yours and your mentor's busy. Everyone's quite busy at the start of the term. So, it is just so daunting, so daunting.

Similarly, for P11 the biggest issue was "getting your hands on the content that you've got to teach." This was particularly acute for those taking on a Year 12 class in their first year of teaching, which is not uncommon, particularly in rural and remote areas, and those with a large range of different classes to prepare for. P45 found herself with a larger than average load of six classes in her graduate year of teaching, when most other more experienced teachers had five classes, as two of these classes were Religious Education classes with a lower time allocation than other subjects. Having so many different classes for which to prepare, as well as other commitments was quite overwhelming for her:

> So, I've just got a really heavy load and so I need to manage doing my VIT[27], Managing that load and making sure I'm fulfilling my

[27] VIT is the Victorian Institute of Teaching regulatory body. It mandates that teachers complete at least 20 hours of professional development per year related to the AITSL standards.

> requirements as a teacher and meeting students' needs as well, individually. And then—in addition to that, it's getting to that time of year where—I'm on a fixed term contract. I need to start looking for jobs as well. So, it's really hard to balance it all at the moment.

This reflects the findings of the Association of Teachers and Lecturers (ATL), as reported in *The Guardian* (Marsh, 2015), that heavy workload was the largest influencing factor (76%) followed by challenging pupil behaviour (24.6%) for ECTs to consider leaving the profession. Workload was also an issue for P15, who had a tendency to over-plan. He got to a point of exhaustion after the first three weeks of the year and needed an older teacher to pull him up and give him advice on how to achieve a better balance in his life. The contrast between starting in a teaching position compared with other professional positions was significant for mature-aged teacher, P19. He compared his prior position as a beginning geologist where "everything just moves slowly" with his experience as a beginning teacher: "You're working at the same pace as a teacher who has 30 years' experience with no more preparation hours in the day and the same expectations of what you need to do." This reflects the findings of Bahr and Mellor (2016) who refer to the lack of a "stratified and formal system of supervision" for beginning teachers compared with other comparable professions (p. 38). P19 went on to speak about how busy he had been and how he found himself constantly thinking about students and whether he had he corrected particular bits of homework from them or how he would manage particular behaviour problems. In addition, he had spent hours each evening preparing for the next day, on top of expending mental energy in getting to know the staff of the big school he was in, "100 new people," and "learning over a 100 student names." This was also the case with P54 who estimated that he was doing more than 55 hours per week to keep abreast of the marking and preparation that was required. Learning students' names was even harder for P30 who taught in a low socio-economic (SES) area with a high African population with names, most of whose names he could not even pronounce.

Workload took on further dimensions for those in private schools where there was also often the expectation that they would do co-curricular sport on a weekend. As P20 reflected:

> So, the most difficult thing has been juggling the co-curricular, with sport on the weekends and all the extra duties. So, it's like you come to work and you do a full day of teaching and then you have to do another full day for preparation and meeting all the commitments.

Workload was also impacted by the fact that ECSTs in most Australian states have to complete accreditation requirements as mandated by AITSL in the first few years of teaching. As P8 reflected, "It's more just like you spend all your days and hours just getting by and then to throw that [accreditation] on top. I don't know anybody who doesn't want to do it. It's more—it's just another thing." Clearly, the school system has become a very demanding place for beginning teachers, and without appropriate support, including extra free time in their allotment for these professional learning purposes, there is little wonder that some find it too hard to deal with.

Behaviour issues surfaced particularly with two of the ECSTs interviewed in this study who had been trained through the Teach for Australia program[28] and others who worked in low SES schools. The Teach for Australia program involved a six-week intensive training program followed by a two-year placement in a disadvantaged school. Although each of the teachers, P18 and P30, was high in their praise of the program and the exceptional mentoring support they received in each of their schools, there was no doubting the challenging environments they were each placed in. As P18 described:

> It's a very challenging environment. There was no existing curriculum and their kids are really rough in some classes and certainly, the school has come a long way since I started at school in terms of the support that was given to teachers to manage behaviour and follow up on behaviour but it is definitely challenging.

[28] The Teach for Australia program aims to fast-track high-calibre non-teaching graduates into disadvantaged schools through an intensive training program that leads to a post-graduate teaching qualification.

P30, in the low SES school mentioned above, felt very isolated and spoke of the “day to day grind of teaching” and the difficulty of “finding head space away from that.” He particularly struggled with the wide spread of abilities in his Maths classes, with students of Year 3 level in a Year 9 level class, and the difficulty of meeting with other teachers who were equally as pressured as him working in a small but very challenging school. As he reflected, “all the pedagogy, all the good stuff of teaching and of the science of teaching, I think really suffers because of the whole small school system that we're in.” Other behaviour issues occurred for P50 in having to work in an environment where there were no discipline policies and “where all my colleagues were on completely different wavelengths to me.” She found herself trying to cope with classes that were used to very traditional and demanding methods used by her predecessor and were not impressed with her efforts to use more contemporary techniques. Feeling, literally, being thrown in the deep end, she had to draw on all her resources to cope.

For other teachers such as P24 and P50, it was the off-loading of responsibility onto graduate teachers by more experienced teachers that was the problem. In the case of P24, who also worked in a low SES school, it was the issue of an experienced teacher not pulling her weight in a team teaching situation. As she reflected:

> And even when you're teaching together it's like you're left with most behaviour management stuff and it's not one of your strengths, but you expect the more experienced teacher to be able to handle more of that.

She also felt that when materials were prepared for the class, the older teacher with much more experience than her, did not pull their weight, offering to do things but not up to the standard she expected. Being a younger teacher and having English as second language (ESL), P24 lacked the confidence to speak up in this uneven situation. Had she been supported by a CoP, she may have been able to draw on the advice of more experienced colleagues to find strategies to deal with this.

The particular support that ECSTs should receive to assist in dealing with these challenges, according to AITSL (2017b, 2017c), is a sustained

induction and a mentor. As will be seen in the following section, neither of these were guaranteed for many ECSTs in this study.

Mentoring—the Good, the Bad and the Non-Existent

For ongoing ECSTs, unlike some of their casual relief teacher peers, there is an expectation for their school to provide them with a mentor, at least for their first year of teaching. However, as Table 4.4 showed, only 41.1% of participants in their first year of teaching indicated that they had a mentor as a source of support, whilst 4.7% indicated that there was no support at all, including not having a mentor. These are disturbingly low statistics, given the fact that a good mentor and mentoring partnership is so important for a beginning teacher, helping to make the difference between success and failure (Ellis & Osborne, 2015). It is to mentors that this discussion now turns.

The main problem with mentors for a number of ECSTs in the study was that, thought they might willing to help, they just lacked available time. As P31 reflected, “I do have a mentor but, because she is so busy, there is really limited contact with her.” This is a common problem, with the mentoring role often being allocated to more experienced teachers who might have a leadership position that takes up their time. This was the case with P16 whose mentor was extremely busy—spread over two departments, being a year level co-ordinator and running several co-curricular programs. The Victorian Department of Education and Early Childhood Development (2010) recommends that “regular and time-tabled meetings on a weekly or fortnightly basis” should be structured into a beginning teacher and their mentor’s program (p. 1). This is clearly not happening in many schools or certainly not for P8 who only met up with his mentor twice over the course of a year. They also recommend that the mentor and the beginning teacher should be “teaching the same year level or subject level” (p. 1). This was not the case for P31 who was an English teacher whilst her mentor was a Maths teacher. Further recommendations include that the beginning teacher and mentor should be working “in close physical proximity to one another” (p. 1). For a number of ECSTs, such as P7, having her mentor on the opposite side of a relatively large school fell significantly short of this ideal.

The other aspects of mentoring that appeared to be problematic were the lack of training of many mentors and the somewhat random way that schools allocated them, as P19 found. Although he and his mentor taught the same subject, his mentor was new to the role of mentor and did not really know what to do, to the extent that P19 tended to go to other people when he had questions, rather than to his mentor. In the same school, P27 was given a mentor who was teaching in the same subject area but who was close to retirement— "I felt he was like, he had one foot out the door." Although P27's mentor had a lot of experience, the pair did not entirely gel. A contrasting inappropriate choice was when mature-aged participant, P56, was given a mentor who had been just a year ahead of her in her pre-service training. Again, even though they shared the same subject area, P56 felt, especially as a mature-aged student, that someone with a bit more experience and maturity might have been better for her. This lack of consideration for mature-aged ECSTs reflects the statistically significant difference in lower level of support between the older than 35 age group and each of the other age groups discussed earlier in this chapter in relation to Table 4.2.

Other inadequate mentoring occurred when schools appeared to put little thought into their choice of mentors. For P50, it was a case of having little respect for her mentor who had limited teaching skills:

> This is where I get really mean, but I find my VIT mentor is a complete and utter waste of space. He doesn't have any classroom strategies. Whenever he takes my class when I'm away, the kids do nothing.

As Tonna et al. (2017) suggest, mentors need to be chosen who can showcase practice, not the opposite.

Finally, whilst P22 was relatively happy with his mentor, he felt as if was more by luck than design. As he reflected, "I don't think there was much thought put into it . . . I don't feel it was a great master plan of positioning similar people together." Although quite a few ECSTs were very happy with their mentors, the fact that a significant group of other ECSTs have such a dislocated or unhelpful experience suggests a more co-

ordinated, mandated approach is needed in different states and territories of Australia. There is also the issue of whether mentors should be trained, which will be addressed in the concluding chapters.

As well as the inevitable challenges associated with the first year of teaching, a number of ECSTs in this study found themselves in more toxic school environments. As Ingersoll and Strong (2011) reflected, teaching is an occupation that "cannibalizes its young" (p. 202).

Challenging School Environments—Drowning Most of the Time

One of the most disturbing stories in this study came from a mature-aged participant, P23 who found employment in a low SES school. He was over-allotted, as he had to take on an extra VCAL[29] class created when extra funding came through, in addition to his full-time load. There were 30 students in the class, which two teachers were meant to teach. However, the second teacher did not eventuate. He felt very pressured— "I was on 48 hours, 48 classes and stuff like that. It was just insane"—but received little support when he went to a leader and asked for help, being told, "No, you're in charge. That's why we brought you in to be in charge." There were significant behaviour problems in the class and, to make matters worse, he was in a room that was too small and was one of the worst classrooms in the school. It was possible that P23's background as a mature-aged teacher gave him the resilience to stay with this position till the end of the year before finding a more agreeable situation in which to work.

Somewhat similarly, P50 was in a situation where her colleagues were not very supportive, leading to her taking on responsibility for others in the earliest days of her teaching:

> Yes, I feel like the Year 10 team—we don't have the content knowledge to be able to this—and we haven't done it before and we're all new to the school so we don't have that rapport with the students. And so, I find that really difficult and, for instance, with the two graduates in the Year 10 program ... I

[29] VCAL is the Victorian Certificate of Applied Learning which students in Victoria can undertake as an alternative to the Victorian Certificate of Education (VCE).

> think they both look to me because I have a minor in Geography and Sustainability and a major in History and I find I'm doing a lot of the planning and assessment stuff as well.

In the same school, P51 found it was a case of taking on a co-ordinator role in introducing and developing a new subject for the school, whilst being paid as a graduate teacher and receiving no time allowance, as a normal co-ordinator might have. When asked about the course she had to develop, she replied:

> Yes, with no help at all and yes, I mean it. I don't mind doing that but at the end of the day I'm only on graduate wages as well, yet I'm doing something that probably people that have had a lot of years' experience. And I just feel I'm not being rewarded, so to speak, for all the work that I'm doing. I guess that's my biggest beef, really.

Whilst she effectively took on this role and developed strong self-efficacy through the process, she found that, ultimately, she did not have any of the authority that would normally go with such a role. It was not until an external reviewer came into the school and was shocked at the conditions she was operating under, that P51 got some support from her Principal.

Another very difficult school environment was experienced by P34 as a graduate teacher. Her areas of specialisation were English and Religious Education but she was asked to take on a class of the Victorian Certificate of Applied Learning (VCAL) in her second year at the school. She was happy to do so, but found herself in a situation where there was no course documentation and no assistance for her to get started in an unfamiliar subject. As she observed:

> Like there was no help at all. Just work it out for yourself. And I asked for help and wasn’t given anything. So, I wrote the whole course myself and they’re quite difficult students, as well, in VCAL, at times.

She was also asked to take on a small co-ordinating role and in the context of this role experienced a difficult situation with one of her

superiors who she found, “undermined me and he was just really pretty awful and just knocked back everything I did.” She generally felt unhappy in what she described as the very negative culture of the school and eventually collapsed at school from total exhaustion, taking a week off school to recover. However, on her return she was told, “How dare you take time off! You’re selfish. You’re only thinking about yourself, not the students. If this happens again, you’re fired!” It is no surprise that P34 left this school at the end of the year and found a much more supportive school culture to work in.

Finally, as a Language teacher, P14 found, similar to P34, that it was not so much challenging students she had to deal with, but a toxic school environment and lack of support from her colleagues. She felt very isolated, being the only one in the school teaching her particular language and reflected:

> Language teachers are in isolation and in competition, in that not only are we often alone but we're also in competition with the other subjects. And if there's two Language teachers in a school, they'll often be in competition with each other for students.

P14 found her support through Language Associations which were particularly strong in her home state. The importance of Subject Associations will be discussed further in Chapter 6. These were a major source of support for P14 especially at some very low ebbs, when she needed hospital treatment and the school ignored her.

These examples show the difficult school situations ECSTs can find themselves in. Often, they are so desperate to get a position that any position, no matter how suitable, is taken on. In a number of these examples, the ECSTs were mature-aged and had the inner resources to deal with the desperate situations they in which they became immersed.

The following section shows the further issues that casual relief teachers face in addition to those that have just been discussed.

Casualisation/Under-Employment and their Consequences

One of the most significant issues to arise from the interviews and focus groups of this study was the consequences of the casualisation and under-employment of the teaching workforce. With Australia, according to the Organisation for Economic Co-operation and Development (OECD, 2016), being the second highest employer of casual relief workers in the world it is not surprising that this is the situation in which the majority of participants in this study found themselves in. This is reflective of the findings of AITSL (2017c) that only 45% (n = 829) of secondary graduates in 2015 were working fulltime in schools four months after graduation. Charteris et al. (2015) describe these teachers as "an unprepared, itinerant workforce (that) are largely neglected at a systemic level" and suggest that "casual relief teachers, who work on the peripheries of schools, tend to be some of the most unsupported workers within the education sector" (p. 2). They point to the difficulties these teachers face in addressing mandatory standards set by AITSL, threatening their ongoing registration and their movement from the status of graduate teacher to proficient teacher. Not only are they often "out of the loop" in terms of knowing about professional learning opportunities, but they also are generally required to fund their own professional learning and travel long distances to attend it (Charteris et al., 2015, p. 4).

ECSTs on casual relief or short-term contracts in this study spoke about a lack of security in terms of having to constantly be on the move in search of further employment, foregoing the normal rights of ongoing teachers, experiencing accreditation and professional learning issues and having to teach out-of-field subjects. Some participants who been given a short-term contract, found that they had part-time employment but still had to come to school every day—essentially having a full-time commitment but part-time pay. These issues particular to casual relief teachers will now be considered.

Lack of Security and Vulnerability—As Disposable as the Next Tissue Out of the Box

Arguably the most psychologically demanding aspect of being a casual relief teacher was the lack of security associated with being in such a situation and the consequent vulnerability. This had very practical ramifications, particularly for those with shorter blocks of employment, including the need to find appropriate accommodation within a realistic distance from the school. City participants tended to live at home, as a "safety net", as short-term rental was hard to find and costly, but the consequence of this was often having to travel long distances to get to a suitable school. This is illustrated by P12, who had to travel from the inner city to a distant suburb to find a suitable position. To use public transport would have taken her two and a half hours each way, so she chose to drive, but found herself paying $11 every day for tolls, as well as paying for fuel and vehicle costs, severely cutting into her earnings. Similarly, for P25, a long jaunt to the opposite side of the city from where she lived was her only chance of securing a position. For these teachers, the school day was very long, factoring in hours of travelling time as well as regular after-school meetings. Other ECSTs such as P10 and P46, found that they had to leave the city and travel to a country school to secure any sort of position. However, the insecurity of being a casual relief or short-term contract teacher and not knowing how long they would be at the school became problematic for finding appropriate rental accommodation in the country. As P10 reflected, "Yes, and it's just been difficult too, because I can't go and rent a house because of all those variations. So, I'm staying with some people who have been very nice and generous."

Apart from accommodation, lack of security manifested itself in a number of ways at the school for these ECSTs. It became clear that towards the end of a designated block, a casual relief teacher could begin to feel very tense, not knowing if the school would keep them on or if they would have to leave. For P13, the need to know what the school had in mind by a certain time of the year was necessary for her to feel secure, so she had to become "pushy" to get any answers: "So I'm pro-active in making sure I've got a

contract from about August/September, to make sure I've got something lined up for the next year.” She also felt the need to be constantly on guard to ensure the management liked her, if she was to stay on at the school. As she eloquently explained:

> However, because I am a contract worker—you know what's it's like—if they like you as a contract worker they will find a job for you. If they don't like you as a contract worker, then—Oh too bad, so sad, see you later, sorry!

In her second interview, some months later, P13 expressed her concern about a new feedback system the school had introduced, whereby each of her classes was surveyed about her and the results tabulated. Although she saw value in the process, P13 felt very concerned about who would view the results of the surveys and how this might impact her ongoing employment:

> And whether that professional development in inverted commas is actually going to be used as—well, we're not going to give you your salary increase this year because.... Or actually, we're going to not renew your contract. Sorry we've got enough evidence—see you later. That's my concern.

This is a relatively new development in some schools. As schools move towards greater accountability and seek more feedback/data from students, it gets increasingly difficult for short-term contract teachers to feel relaxed in the school they were in, knowing that a bad survey might be all that is needed to not have their contract renewed. As P13 reflected, “I'm trying to make myself “un-fireable. It's at the point—I don't sleep very much these days.”

This desire to go beyond the normal expectations of a school for its teachers in order to stay in favour was not uncommon amongst a number of casual relief and short-term contract ECSTs. P45, for example, felt very happy in her school situation, despite being in a one year contract position, but it was a question of conflicting priorities. She loved getting involved in many co-curricular activities but at the back of her mind was always the

reality that, despite all these ‘over and above’ efforts, she might not have a position there in the following year. As she reflected, “I'm emotionally invested in the school and the chances are I won't be here.”

A lack of security was also evident in the fact that these teachers are the most vulnerable in a school community when it comes to its budget. For P12, the austerity measures at one of her schools because of rising debts, meant that a lot of smaller VCE subjects were cut at the end of the year and she had to be the first to be told to go because there were not enough classes for her. Inevitably, being the last in to a school, often means being the first to forego normal teacher benefits.

Some casual relief teachers felt as though they were caught in a “Catch-22” situation in regard to employment agencies. As P54 reflected:

> And so, there were a lot of schools which were closed shops except if you went via an agency. And if they couldn't request you via the agency, the agency would give whoever they wanted. And so, you still couldn't find your way into schools. Found it very difficult, in fact, getting into schools.

However, if an ECST joined an agency, although they might find work, part of their salary would be regularly syphoned off to the agency.

Being denied the normal benefits that an ongoing ECST would get was a common experience for casual relief or short-term contract ECSTs. Many such as P16, found beginning at a school at other than the start of the year meant either getting no induction or only a very brief one and then landing straight into the classroom:

> Because I started as a casual teacher, I was just dumped in the deep end. I got to school and I got ‘Here are your 5 periods, plus 2 duties. Go and do it’. . . Yes, a lot of it was just jumping through hoops.

Similarly, P6 described his induction as a “very watered down version” because he arrived a month after the start of Term 1. In addition, the teacher he was replacing had left hastily and there was little work left for him including for a Year 12 class, so he was truly thrown in the deep end. As he

explained, "I got very little. I got some past SACs[30] and a textbook. So, I was a bit behind with that." Similarly, P54 found himself in a potentially worse situation when he took over a Year 12 Information Technology class in the first two weeks of Term 4, their last two weeks of schooling. All he could do was go with the flow and get the job done. The importance of having an induction cannot be under-estimated. Each school has its individual culture and procedures and even an experienced teacher, let alone a beginning teacher, can find it overwhelming to move to a new school. As AITSL (2017b) suggests "although contextual orientation is important, induction needs to include a focus on four key areas: professional practices, professional identity, well-being and orientation" (p. 13). This was clearly not happening for many ECSTs in this study, especially not for those who were casual relief teachers. In addition, the opportunity to be mentored is not assured for casual relief ECSTs. Some are lucky—others are not, as was evident in the questionnaire findings earlier in this chapter. P17, for example, in her first short experiences at several schools, found out that "there was no support at all" for her, let alone a mentor. Similarly, P36 who was not given a mentor in her first year of moving from one school to the next, just fought it out herself, whilst P27 reasoned that he was not given a mentor at his first school because he was only there for a term. In effect, he felt, "I don't think they were looking at investing a whole lot of time and resources into me."

Schools can also sometimes find loopholes to deprive casual relief ECSTs of mentors. After a range of short blocks at different schools over an 18-month period, P12 finally got a year-long block at another school. However, the school felt she was not eligible to have a mentor because she was no longer in her graduate teacher year. She was disappointed as she still felt the need for a mentor. Perhaps this is an outcome of tight budgets in schools, but it would appear to be a less than desirable situation when an inexperienced teacher feels the need for a mentor but is not supplied with one because of a technical detail. Fortunately, as a mature-aged teacher, P12

[30] SACs School Assessed Tasks that are formal assessment tasks that are part of the Victorian Certificate of Education (VCE).

had the confidence to find one for herself by networking. Another mature-aged teacher, P51 found that there was neither induction nor a mentor were allocated to her when she began at her school. Because she had worked in the TAFE sector, it was assumed she did not need these forms of assistance, but that was not necessarily the case.

Other provisions that casual relief and short-term contract ECSTs often have to forego are a reduced allotment in their graduate year, or as in the case of P16, the chance to observe other teachers:

> I didn't get the same concessions that other teachers do, which is one of the things that made my first year a little bit tougher that I didn't get quite the same support that other teachers got. For example, this school, the permanent teachers, first year permanent teachers get allocations for observing other teachers and a few other little concessions for being first year teachers and I didn't get any of that.

Similarly, P16 found, “I think as a starting-out teacher, there’s probably a need for a few more concessions, a few more allocations.”

It is understandable that a casual relief ECSTs coming in for very short blocks might not get the considerations that ongoing teachers might get. But for those with longer blocks of several months or more, it seems unfair that they are forced to *sink or swim* and be largely neglected by the system, as Charteris et al. (2015) suggested earlier, and this would appear to be a significant factor leading to teacher attrition.

Professional Learning and Accreditation Issues—In the Too-Hard Basket

For some ECSTs, the opportunity to undertake professional learning was also problematic. Teachers, such as P13, were never released for professional learning opportunities, not only because the school could not afford to pay for this or find suitable relief teachers, but also because they did not feel it was worthwhile investing in a casual relief teacher: “And so to be released to go to professional development was seen as in the too-hard basket, essentially, because nothing was classified as necessary to my

practice." When she finally convinced her head of department to let her go to a course in the last two days of a term, a course that was clearly aligned with the school's vision, she had to pay for it herself. This is something that would be quite unlikely to occur for an ongoing teacher.

The data revealed that rural and remote school teachers found it was even more difficult to be allowed to attend face-to-face courses because of the greater travel times involved and the extra days away from their classes that this created. This, in effect, meant they received no professional learning unless their school had moved in the direction that this research is suggesting that is, using Communities of Practice, including online ones such as private Facebook groups, where all teachers, whether casual or ongoing, can be involved.

Professional learning problems also overlapped into the accreditation area. In most states in Australia, graduate teachers are only provisionally registered when they complete their pre-service program. To achieve full registration, they must address a number of criteria, including teaching for a designated number of days (in Victoria, for example, this is 80 days) in a five-year period, providing evidence of the achievement of a sizeable number of professional standards and, in some states, completing an action research project. These requirements can be daunting even for an ongoing teacher on top of their full-time teaching load. However, for casual relief and short-term contract teachers there are the additional problems of accumulating the required number of days teaching in the designated period and having enough time at any school to develop evidence for each of the required standards or to conduct a research project which might require a number of weeks to execute. In some states, part-time casual relief teachers are permitted to spread their full registration work over five years rather than two years. This was the case with P49 who had to ask for an extension because she had not been in any school for long enough to begin the tasks. When she finally found a school willing to let her begin the requirements, she was told she would have to do it in her own, unpaid time. This was not really an option for her. In a somewhat similar situation, P40 found the requirements kept changing for her. She had completed about one third of the requirements in one school, but when she had to move to another school

because her contract had finished, she had to re-do most of it. Then the news of the new requirements came through and she knew that if she did not complete all of the present set of requirements within the following few months she would have to go through a whole new process and what she had done already would be useless. As P16 reflected:

> It’s incredibly difficult to get accreditation done as a casual—and you've got to get it done in your first 5 years and if you haven't got a block somewhere it's almost impossible.

Clearly, the situation of casual relief and short-term contract ECSTs who have such irregular appointments needs to be considered by registering authorities.

Out-of-Field Teaching—I’m Not Teaching Anything I’m Trained For

Because casual relief and short-term contract teachers generally come into a school as a replacement for another teacher, the package of subjects they are given to teach are unlikely to fully suit their background or preference and are likely to be Out-of-Field subjects (Weldon, 2016). For P42, who taught in a small country school, it was a case of teach the subjects he was offered or forego the job:

> I'm not teaching anything I'm trained in, because I'm Ancient History but I'm teaching predominantly Modern History, and the rest of my allotment is Geography and an English class. I'm also teaching a Maths class. So, it's good learning, it's good learning experience but it's tough, it's very tough.

P3 had a similar problem, being given all Maths classes for which she was not specifically trained, when Business Studies was her curriculum area and her passion. She, too, was trying to make the best of it, but conceded, “I know it's a challenge but it's not meant to be easy in your first year, anyway.” This was also the case with P41 who began teaching a block of Religious Education for which he was trained, but when that finished, was given English classes for which he had not training. He made the best of the situation in the interest of keeping a position at the school, but there were

times when he felt close to being out of his depth. Others, such as P36, found themselves teaching across a range of faculties, including Maths, English, Religious Education, Humanities and Drama, when her area of expertise was specifically Drama. Although she made light of this situation, the reality is that each faculty had a required number of after-school meetings per term, which significantly escalated P36's total number of meetings, compared with ongoing ECSTs and older teachers who might teach in only one or, at the most, two faculties.

Situations tended to be even more precarious for those participants who had done only very small blocks of time in a school. Schools tend to load these teachers up with a mixture of subjects, even if they are graduate teachers. This might be fine for short periods of time, and a number of ECSTs pointed to the value of this for giving a teacher a broad overview of how different schools operate. P35, for example, was told by a Principal to begin doing casual relief teaching (CRT) as a helpful way of building up relationships with schools: "People get to know you and so many jobs open up." However, if this process goes on for too long and ongoing positions still do not open up, it can be very demanding and demoralizing for the teacher. P16, for example, thought that having six months as a casual might be fine but more than that might be difficult, especially if you did not have the luxury of having family support. For those ECSTs who do not have such support, one wonders how long they might persist in the teaching profession. In addition, P35 found himself with tax difficulties after being in three consecutive schools with all their attendant paper work, leading to him having to pay out a sizeable sum to the Australian Tax Office. Unless casual relief and short-term contract teachers are careful about when or when not to a claim a tax-free threshold at different schools they can find themselves with a debt to pay at the end of the financial year. With many also finding themselves over the threshold, at different points of time, in terms of paying back their HECS[31] debt, this can also be a financial challenge.

[31] HECS-HELP is a loan scheme to help eligible Commonwealth supported students to pay their student contribution amounts through a loan or upfront discounts.

Finally, it can also be very demanding moving from school to school and sector to sector over an extended period of time. P12 was of the opinion that any more than about 6 months would be difficult in terms of keeping up their momentum. As mentioned earlier in this chapter, each school has its own culture and to be continually spending time learning a new school's culture rather than focusing on one's own classroom practice is not ideal. As P8 reflected, "It's a hard thing to learn a school's culture," with P10 adding:

> Once you've got all the culture and those sorts of things sorted out, you can focus on other things like your registration, but when you're in a school in a temporary sense, it's difficult because you learn those lessons and then you could be out the door. Then it's on to the next school and having to re-learn all those lessons again.

This is obviously not a good process in the long term, with too much emotional energy being taken up in learning the routines and cultures of a new school every few weeks, as well as whole new sets of names to learn and student issues to address, leaving little time to develop other aspects of a teacher's practice. On top of this, are behaviour issues which are arguably worse for casual teachers. As P54 highlighted:

> I mean, it's hard getting into the classes when it's your own class. But when it's not your own class, you can't determine the disciplinary approach and you would send kids out of class and there would be no-body to send them to.

Over time, it is not surprising that many casual ECSTs feel it is all too difficult and decide to give up and look to other less stressful ways of earning an income, as is reflected in Australian attrition rates of 8% to 50% (Queensland College of Teachers, 2013).

The World of the ECST from a Mature-Aged Perspective

As mentioned at the start of this chapter, 27% of participants in this study were mature-aged in terms being over 30 years old, many having worked in another industry before coming to teaching or coming to teaching after having raised a family. Their experience of the world of early career

teaching was somewhat different from the younger graduate teachers in their twenties.

Background and life skills were a great benefit that mature-aged ECSTs brought to their teaching. The advantage of having worked with adults or had a family and seen a world other than a school environment gave mature-aged ECSTs a depth of knowledge they could draw on and considerable life experience they could bring to bear in the classroom. For those ECSTs who had worked in an industry that had immediate application or relevance to particular school-based subjects, such as Engineering, Accounting or TAFE[32], there appeared to be both a greater chance of finding a position and of beginning in a confident manner compared with other graduate teachers. P19, for example, found that his experience as a geologist probably helped him to get his teaching position. Having had industry experience appeared to lead to greater confidence and self-efficacy in the classroom, giving him a depth of knowledge and practical examples from industry to draw on in his teaching of Science. Other participants such as P20, who came to teaching from an Accounting background, experienced a similar sense of confidence in knowing how businesses run and what to expect from an employer and an employee. Similarly, P35 found that his several years of experience as a Meteorologist and then as Retail Assistant was a great general background for teaching, not so much because of he was directly teaching Meteorology, but because he could tell interesting stories from his past in a variety of contexts, including television presentations. He reflected thus:

> So, that was really good and that's something now that I get to share with the students. So, that was a pastoral way of introducing myself to the students by showing my TV segments to them and interacting with them.

For P31, the advantage of having been a mother and raising two children gave her a particular insight into the needs of the teenage girls she

[32] TAFE stands for Technical and Further Education and is a form of higher education in Australia.

was teaching. She reflected: "I guess I understand the girls that I'm teaching because my own children are very similar ages. I think that's really good—and then I look at some younger teachers and they don't have that." Similarly, P11 found that the breadth of her background as a mother, as well as the professional work she had done prior to her teacher studies, gave her a particular perspective, different to most of the other teachers, both early career and more experienced, at her school:

> I think the danger with schools is that they are quite insular and people get into them. They know them. They breathe and live it, but they forget what it's like out there. And also, because I'm a parent of secondary kids, as well as being a teacher, you can kind of see both sides.

On the other hand, these same participants felt the pressure of having to find time for their own children when school commitments were so heavy. It was difficult for them to juggle after-school meetings with child-care and school pick-ups.

Whilst this study is not necessarily suggesting that all teachers should enter the profession at a mature age, after having experienced some different aspects of life, it seems that this pathway does have advantages in terms of the increased self-efficacy and professional identity it can generate relatively quickly in ECSTs. Watters and Diezmann (2015) in their research with STEM career-changing teachers found that often these teachers are over-qualified and this can be frustrating for them, but this also did assist them in having significant degrees of confidence and competence.

The concluding section of this chapter deals with the more positive aspects of the ECST experience generally.

The Advantages of Being an ECST

All teachers who completed the survey (n = 107) were invited to reflect on what they thought the positive advantages of being an ECST were in an open-ended question at the end of the questionnaire. Interview (n = 49) and focus group (n = 15) participants also discussed this question. In total, 107 participants responded and made 199 coded references to this question.

The results can be seen in Figure 4.3. Apart from generic terms such as teachers and schools, the next most significant words were: new (74 references), ideas (63 references), fresh (58 references), enthusiasm (40 references) and knowledge (36 references). These ideas will be explored further through examining in more detail the comments participants made.

Figure 4.3 Advantages of being an ECST (*n* = 107)

New/Fresh/Innovative Ideas

A number of participants spoke about the value of them being a "fresh face" in the school. P20 saw this in terms of having the chance to affirm more experienced teachers in the school that the teaching profession was still a desirable employment option for younger people: "You're a fresh face that's coming in and you're validating the industry that very senior teachers have been working in for a long time." Others reflected on how their newness brought with it innovation, in that "you are up with the latest educational research as well" (P19), "a fresh set of eyes into things that have been going on in the school" (P53), "fresh ideas that align more with the 21st century" (P1) and a "fresh perspective in line with current research in practice and technology" (Anon.13[33]).

[33] Anonymous (Anon.) participants were those who made comments in the questionnaire but did agree to be interviewed.

Knowledge/Academic Advantage

A number of ECSTs commented on how they brought to their schools a strong academic background. In some cases, this was due to the fact that they had completed the relatively new Masters of Education[34] programs an increasing number of institutions are now offering, rather than a Diploma of Education[35] that other teachers in the school would have completed. Others such as P53, felt that having a degree followed by a Diploma of Education gave them an academic edge over teachers who had done a Bachelor of Education: "So, I have a specific field which to tailor to classes." Anon.12 also referred to "strong content knowledge" and Anon.26 to "knowledge of technology". There is no doubt that many graduate teachers are coming to schools with superior qualifications and this should be seen by schools as an asset to address the complex learning needs of the students they are asked to teach.

Enthusiasm/Youthfulness

Finally, a number of teachers commented on the vitality and enthusiasm they felt they brought to the classroom. They saw value in the fact that they were closer in years to the students than older teachers, giving them greater opportunities for relating to them. P30 reflected on his "energy for teaching and learning and my ability to relate to young people," whilst P17 spoke about having "more enthusiasm for the job compared with teachers who have been doing it all their lives." This may not necessarily be true for all older teachers, but it is certainly something of which younger teachers are conscious.

Summary of the World of the Early Career Secondary Teacher

This chapter has examined the many demanding, as well as some of the positive features, of the world of the early career secondary teacher. The problems that have been discussed suggest that, without appropriate support, these ECSTs might consider leaving the profession. It has also considered

[34] A Master of Education is a post-graduate two-year course.

[35] A Diploma of Education is post-graduate one-year course.

the areas where ECSTs look for support and how effective this support has been, particularly in terms of having a mentor and appropriate induction procedures. The issue of the casualisation of the workforce that has multiple implications for ECSTs has also been discussed. In the following two chapters, the stories of other participants in this study who were the lucky ones, finding support and encouragement in their schools and being given opportunities to build their teaching practice and efficacy, their professional identity and social connection will be presented. Although they, too, had to deal with praxis shock and demanding workloads in their first year, at least there were a number of structures in place in their schools which helped to support and encourage them.

Chapter 5 Three Exemplar Communities

> *So, the Lion being fully refreshed, and feeling quite himself again, they all started upon the journey, greatly enjoying the walk through the soft, fresh grass; and it was not long before they reached the road of yellow brick and turned towards the Emerald City where the great Oz dwelt.* (Baum, 2015, p. 48)

In the previous chapter, the issues facing early career secondary teachers, particularly those in casual relief and short-term contract positions, were highlighted as a key problem motivating this research. What emerged for many teachers was a demanding set of circumstances that, without appropriate and timely support, could well lead to the teacher attrition that has been much publicised in recent years (AITSL, 2017c; Buchanan & Prescott, 2013; Galant & Riley, 2017).

By way of contrast, this chapter looks at three different school environments that showed evidence of providing successful experiences for their ECSTs. Each was described by participants in their school in very positive terms as places where they felt fully supported and where they were encouraged to develop their teaching practice. Whilst these three school-based communities have emerged as exemplars of how effective Communities of Practice—teamed with appropriate induction procedures, intentional mentoring and a strong learning culture throughout the entire school community—can add significant value to the experience of early career secondary teachers, they are certainly not the only examples of best practice schools in Australia. However, they do represent particular features of high performing schools in terms of Communities of Practice, each with a different but successful approach and a strong culture of growth. They are located in two Australian states, Victoria and Queensland, and include two State high schools and one Catholic secondary school. One is city-based, whilst the other two are classified as rural and remote respectively.

The Cycles of Value Creation of Wenger et al. (2011) have been used to consider and analyse these Communities of Practice and the value that they might have for early career secondary teachers. As was explained in Chapters 1 and 2, each stage has its distinctive features but is also part of a

cyclical movement of learning loops where participants "transverse the cycles" moving back and forth between different parts of the cycle as their experience develops (Wenger et al., 2011, p. 37). In this chapter, the key criteria of self-efficacy, professional identity and social connection are discussed within the cycles of the Value Creation Framework. The sections of this chapter are outlined in Figure 5.1.

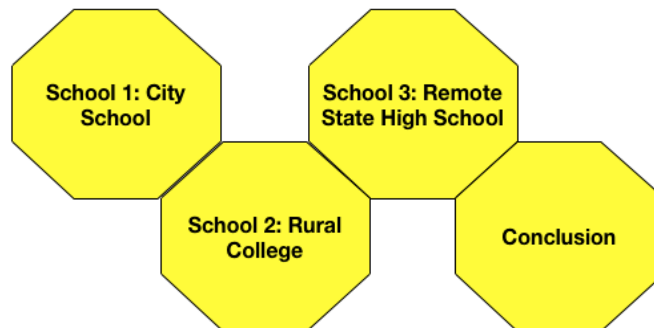

Figure 5.1. Outline of Chapter 5 Three exemplar schools

School One: City School, Melbourne, Victoria

City School is a five-campus co-educational State high school in Melbourne, Victoria. It comprises three junior and two senior campuses, each with cohorts of 200–250 students per campus. The school is a multicultural community with over fifty different nationalities represented in the student cohort and 57% of students with a background other than English (MySchool, 2017). It had an Index of Community Socio-Educational Advantage[36] (ICSEA) score in 2016 of 917, which is below the average ICSEA value of 1,000 in Australian schools; however, when compared with schools facing similar disadvantage, the school has gone from the bottom 10% to the top 10% in most measures since the arrival of the current Principal.

Participants (P1, P2 and P3) at City School were drawn from ECST staff members of the Mathematics department, which had worked as a Community of Practice since 2008, led by numeracy leader (L1) and her

[36] The Index of Community Socio-Educational Advantage (ICSEA) is a measure that enables meaningful comparisons between schools.

colleague (L2). The demographic details of the three participants are provided in Table 5.1.

Table 5.1.

Demographic details for city school participants (*n* = 3)

Participant	Age	Years of Teaching	Subject Area
P1	26–30	<1	Maths/Science
P2	<25	<1	Maths/Science
P3	26–30	<1	Maths

(Note. Age and years at the time of Round 1 interviews.)

The CoP involved teachers meeting together to design a differentiated program[37] of Mathematics learning for students in Years 7-9, in an effort to raise numeracy levels, which were lagging behind the State average at the time. This involved combining classes, with teachers team-teaching groups of up to 50 students at a time using innovative teaching methods. The use of textbooks was discontinued and the CoP created hard-copy learning tasks that could be used by at least three levels of students in any particular classroom. They also made use of the "scaffolding numeracy"[38] teaching method, in which students are divided into eight levels according to their ability (Preiss, 2013) and reciprocal teaching[39] adapted for a mathematical context.

[37] Differentiation is a process of adapting content in a lesson to suit the needs of a diverse range of learners.

[38] The Scaffolding Numeracy in the Middle Years 2003-2006 (SNMY) was an Australian Research Council Linkage Project awarded to RMIT University, the Victorian Department of Education and Training and the Tasmanian Education Department from July 2003 to June 2006. The project investigated the efficacy of a new assessment-guided approach to improving student numeracy outcomes in Years 4 to 8. In particular, it was aimed at identifying and refining a learning and assessment framework for the development of multiplicative thinking at this level using rich assessment tasks. (accessed from http://www.education.vic.gov.au/school/teachers/teachingresources/discipline/maths/assessment/Pages/scaffoldnum.aspx)

[39] Reciprocal teaching is a literacy strategy involving students predicting, clarifying, generating questions and summarizing key ideas in a mathematical problem.

As reported in Chapter 3, semi-structured interviews with ECSTs were conducted at City School at regular intervals over a 15-month period, as well as the researcher visiting the school, informally observing two Mathematics lessons and discussing the Mathematics program with L1. The findings from these interviews have been analysed in terms of the Cycles of Value (Wenger et al., 2011).

Cycle 1: Immediate Value

Immediate Value, according to Wenger et al. (2011), comes from "activities and interactions that have value in and of themselves" (p. 19). The ECSTs at City School experienced Immediate Value from the quality of support that they experienced from the very start of their teaching journey. The three participants were pleased to be welcomed into the Mathematics Community of Practice and found the staff to be very supportive: "With the Maths, it's been nothing but positive." Each teacher was given a mentor from within the Maths department, reflecting the recommendations of the Victorian Department of Education and Early Childhood Development (2010). P1 found that she was regularly team-teaching with her mentor as well as sharing an office with her: "So we work closely together." This would appear to be an ideal mentoring situation combining geographical proximity, shared academic endeavour and plenty of opportunities for interaction.

The participants received Immediate Value by being provided with ready-made lessons and materials that had been developed over several years by the CoP members. Whilst their peers in other schools, in general, would have been spending many hours each week in preparing lessons, these were done for them. All they needed to do was to photocopy worksheets and make minor adjustments to the resources that were already provided. However, this was a mixed blessing. From a positive perspective, P2 found that everything was at her disposal:

> It's basically just the actual content—lessons are all there and the worksheets are all there. But you might have to print them yourself. A few little things might be tweaked or something like that. But it's all really well set up.

She valued the fact that they could very easily immerse themselves in the classroom, knowing that they were working with material that had been created locally and tested with City School students over a number of years. This is very different from being handed a commercial textbook and being told what chapter to begin teaching with, which is still the norm in many schools.

However, for the third participant, P3, the experience was somewhat different. In contrast to P1 and P2, P3 worked on a different campus without the direct classroom support of L1 or L2. She felt there were significant behavioural issues on this campus— “I feel like I’ve been beaten up every time I try to teach it [the Maths program]”—and that the program was difficult for such a low SES demographic. Whilst she felt there was value in having ready-made materials to work with, she found that because all the lessons were pre-set and the CoP was so well established that there was very little room for individual initiatives: “We get given these outlines and these lessons that—like I wouldn't necessarily want to teach myself but I have to run with it.” As a beginning teacher, she was hesitant to suggest any changes to the program in the CoP for fear of upsetting others. As P3 observed, “And you can't disagree with anything that's been set for you, basically, in this system as a teacher.”

This contrasting view suggests that whilst well-established communities can be proud of the success of their practice, there must always be an openness to listening to new voices that might challenge current practice. There would appear to be a fine balance between having a structured and well-resourced program to offer ECSTs, whilst also allowing a degree of creativity and innovation in the way they deliver it.

Each of the participants also found that their early experiences helped to establish their social connection through meeting the other staff, team-teaching with them and seeing how materials were reviewed and modified at the start of each unit. As P1 acknowledged:

> I think it's good for me personally because —well, being a new teacher, I get to see the teachers teach and get to be able to model that a bit more. And also, Maths isn't my actual

> background—more Science—so it's also good to have that extra support. You know, if I'm not too sure, and I've got someone there, you bounce off with straight away.

Further, for two of the participants, though not necessarily for the third, there appeared to be great value, both pedagogically and in terms of social connection, to be working in a team-teaching situation with more experienced teachers. Cruickshank and Applegate (1981) found that "peer teaching and evaluation by their colleagues gives teachers insights into their teaching strategies" (p. 553). This was particularly helpful for P1, as Maths was not her main teaching area, an Out-of-Field situation that is not unusual for ECSTs, who must often take whatever position is available and loosely suitable, rather than one that directly matches their academic background (cf. Weldon, 2016). P3 however, because she was not team-teaching with L1 or L2, as the other two participants were, found the team-teaching situation extremely demanding. Although she was working with a more experienced teacher, this teacher was also new to the program and to the school. With only this teacher and a teacher's aide, she felt like she was out of her depth, reflecting, "but it's honestly not enough teachers for that class." This is an illustration of the frustration that can occur for ECSTs when they are put into difficult situations, where they may not necessarily feel competent. In the case of City School, it might have been better for P3 to work on the same campus as her P1 and P2 colleagues or for L1 or L2 to specifically work on her campus.

Cycle 2: Potential Value

Potential Value is an off-shoot from Cycle 1, where the value of what has been experienced may not have been fully realised (Wenger et al., 2011). In this cycle, participants can produce *knowledge capital* which includes skills that they can use in the classroom, new relationships and connections that they can draw on (*social capital*), and resources they can use (*tangible capital*) (Wenger et al., 2011). As the ECSTs at City School reflected on their first few weeks of teaching at City School, they realised that they felt a strong enough level of trust within the Community of Practice to ask questions, "anything I need clarified or just how to ask about

how to go about something" (P2). The advantage of the CoP was that it included a range of teachers of varying levels of experience, including the founders of the group, who were expert teachers (L1 and L2). These teachers were able to share their "tacit knowledge"— "people know more than they can tell"—with the less experienced teachers (Sternberg & Horvath, 1999, p. ix). This is knowledge that exists within communities, and this case, a school community, that experienced teachers have accumulated over many years. Although experienced teachers might be aware that they possess this knowledge, they often do not realise how it valuable it can be to other less experienced teachers. Wenger, McDermott, and Snyder (2002) argue that tacit aspects of knowledge are often the most valuable sources of knowledge, more so than as books or websites, and sharing it requires extensive personal contact and trust. As these teachers were all working on the same topic across the three junior campuses, the discussion was focused and localised, with adjustments made that reflected the needs of the current student cohort. More experienced teachers were willing to work with the newer teachers, to "jump in and just assist me in a better way to do something" (P2). It was also helpful for the ECSTs to hear discussions about how a particular lesson should be taught and to see different parts of the lesson modelled for them. As P1 noted:

> We sit there and we're discussing how the lesson should be taught or how we should run a lesson, so I think that's really great for me as a new teacher to actually be able to sit in and listen.

Additionally, they had access to new resources they could try out in the classroom. There was also evidence of an awakening sense of professional identity in being part of the process of reviewing and modifying the resources:

> Yes, it's good, to be able to hear how it's supposed to be run, the lesson and be guided a bit more on how to be less explicit. The Maths program can be quite open-ended, I think, an enquiry approach. So, it's good to be able to get direction on that and be involved in that process as well. (P2)

This ongoing support and the chance to experiment with the Maths material and get feedback on how it went are features of a community that would appear to promote reflective practice. It aligns, too, with Shanks et al. (2012) who found that what beginning teachers most appreciated was the chance to try out new strategies in the classroom, then reflect on their experiences with their peers. City School emerged as an environment where ECSTs had the chance to hone their practice and build their self-efficacy through reflective practice, despite the fact that one participant indicated they would have appreciated more flexibility in how they operated.

Cycle 3: Applied Value

Wenger et al. (2011) maintains that whilst people might have "knowledge capital" as Potential Value, it is only when they actually adapt and apply the material or strategies to their own situation that Applied Value occurs (p. 20). This occurred in two ways for participants at City School. Firstly, they found that in taking the knowledge they had gained in the Maths CoP and applying it in the classroom they were working in, they were able to achieve surprising success with the students they taught. As P2 reflected: "It's completely different to anything I've seen before. It just seems to work, which is good." These findings point to the possibility that teacher involvement in a CoP could improve student results. Further research is recommended.

In terms of their self-efficacy, each of the three teachers, including P3 showed evidence that they were becoming more confident. When asked how she would feel if she moved to another school in terms of her development as a Maths teacher, P1 reflected:

> Yes, definitely. This experience has changed me as a teacher so far. And yes, just trying to be a bit more open-ended and get the kids to learn through more of a discovery style.

She went on to speak more specifically about how her questioning strategies were developing, as she learnt to draw out student knowledge rather than dictating it to them. Having this competence is what Wenger-Trayner et al. (2014) call the first stage of learning in a *Landscape of*

Practice. As was outlined in Chapter 2, a Landscape of Practice broadens the focus from single communities and networks to include a range of Social Learning Spaces that a person might belong to (Wenger-Trayner, 2017b). Within a Landscape of Practice a person can develop *knowledgeability* as opposed to the *competence* that might come from participating in one single CoP or network. In the case of the teachers at City School, the Landscape of Practice consisted of the different faculties that the ECSTs belonged to—Maths and Science—as well as the school's three different junior campuses, each with their particular idiosyncrasies and personalities. The second stage of Applied Value occurs in the broader Landscape of Practice where participants share their knowledge with a different community. Two of the participants (P1 and P2) were able to take the knowledge they had gained in the Maths CoP and apply it to the different, more traditional learning area of Science in their school. Although P2 did not have the support of a Science CoP to provide her with prepared materials and strategies as in Maths, she knew enough to begin to develop her own differentiated resources in this subject. Obviously, this is a much more labour intensive situation for an individual teacher than if the materials were constructed with a group, but this did not seem to worry P2. In fact, preparing her own materials in Science possibly gave her more scope for creativity and enhanced self-efficacy than if she had been handed them. In terms of the Maths CoP, she reflected, "It gives me lots of ideas of how things could improve in other aspects of my teaching as well." P1 felt a similar degree of empowerment in being able to take her Maths strategies into the Science faculty:

> And being one of the people that teaches Maths, I've a pretty strong idea about how best to do these classes and there's only a couple of other teachers that are on the same page. So, in that regard, I'm probably a little bit pushy and I do make sure I have a say.

The option to take ideas that have been learnt in one area and apply them in another indicates a significant change in practice for these young teachers and a strong indication of their developing self-efficacy and

professional identity. At a personal level, this is referred to as a *learning loop* where the knowledge a person has gained allows them to become experts in another situation (Wenger-Trayner et al., 2017). This was the case with these ECSTs who were able to become the experts in differentiated learning in the Science faculty from what they had learnt in their Maths CoP. At a social level, these ECSTs had become *brokers*, "using multi-membership as a bridge across practices" (Wenger, 2010, p. 197). This is all the more significant in that these participants were only in their first year of teaching. These data point to the value of developing an ECST's self-efficacy by providing them with opportunities to show their expertise to more experienced teachers in different contexts.

At their second interview, both P1 and P2 continued to reflect on the process of taking their learning from Maths to their Science classes. P1 reflected:

> It's good to see how one idea can be split up into three and you look at it and I think it makes it easier to transition over into Science and be able to implement that 3-star level system[40]. And I think, maybe if I didn't teach Maths, but I did want to differentiate in Science, I probably wouldn't do it as I am doing now.

These are important teaching skills that P1 had been able to hone over a nine-month period, arguably more quickly and efficiently than if she had not been in such a collaborative situation. P1 felt that if she were to move to another school she would take these special skills with her: "Probably I would carry it over as well. Because even the kids really appreciate it, I think."

Similar to P1, by the time of her second interview, P2 was feeling confident and excited to be in a strong position to help the people in the Science faculty with differentiation. As mentioned earlier, the self-efficacy she felt in having a distinct advantage over more experienced Science

[40] This was a form of differentiation where students chose tasks from three levels of difficulty— one star, two stars or three stars.

teachers, who had not been exposed to the innovative techniques she had learnt, was significant. The opportunities these two ECSTs had experienced since they began teaching nine months previously, within a Community of Practice would appear to have fast-tracked their self-efficacy and professional identity. They were now in a position where more experienced teachers in other faculties could look to them for advice and, should they move to another school, the skills they had developed would potentially be highly valued.

The third teacher, P3, also showed evidence of increased self-efficacy, in the sense of being aware of certain limitations of the program and being able to articulate these and find ways of adapting her teaching to address these limitations. As she reflected on the CoP, after having aired some concerns about it, she said, “I think, honestly, it has really good intentions.” Her experience appeared to be “sharpening her understanding of what are the common issues” (Wenger et al., 2011, p. 12). Although for P3, at this point of time, there was a level of frustration in not having her ideas heard, it was evident that she was refining her teaching skills and her awareness of what might be best practice.

By the time of their third interviews, each of the three ECSTs had begun their second year of teaching. P1 was now working closely with a new graduate teacher and using her skills to model different strategies to her. There was evidence of her increased self-efficacy as she compared herself with the new graduate and reflected on how far she had come in just one year: “Just the knowledge you've gained without even realizing it.” Although it was not easy being the senior person in the team-teaching situation— “it’s a bit of a step up for me” —the challenge appeared to be strengthening her teaching skills and building her leadership capacity. She reflected on the challenge this situation had been for her: “Got to step up and model it to the other person.” To turn the tables and become the mentor rather than the mentee in only your second year of teaching is something some ECSTs would find difficult. However, with strong self-efficacy, built up over the previous 12 months in a CoP, this was potentially one of the best situations P1 could have found herself in. Being able to teach one of your peers is widely acknowledged to be one of the highest form of

learning. McCormack, Gore, and Thomas (2006) found in their study of first year teachers that allowing teachers to be "active learners" to strengthen their knowledge, rather than being passive receptors of advice, is the best way to foster their professional learning and professional identity (p. 111).

P1's self-efficacy was also evident in the way she had continued to share her skills in the Science department. She indicated that she had now developed a complete unit of work with three levels of differentiation, which she had shared with other teachers in the faculty. Being able to do this had been a time-consuming business for her as she was largely working on her own to develop materials, compared with the collaborative efforts and shared workload in the Maths CoP. However, again, this is a pro-active way of building professional identity and self-efficacy, provided the ECST does not get over-burdened.

Cycle 4: Realised Value

From an educational perspective, Wenger et al. (2011) see Realised Value in terms of student achievement and recognition in the wider community. Despite their economic disadvantage, City School has received a number of coveted awards[41]. In addition, student achievement was evidenced in NAPLAN[42] results with Year 9 students achieving significantly higher relative growth than the state average in recent years (School Strategic Plan for City School 2015–2018). The Community of Practice has also achieved wide publicity, with more that 40 schools visiting the school to view best practice Mathematics lessons being delivered. They have also received recognition by the Mathematics Association of Victoria, whilst L1 and L2 have published a number of publications, presented workshops at

[41] Details of these have been supressed to preserve the anonymity of the school.

[42] In Years 3, 5, 7 and 9 in Australia, NAPLAN tests the sorts of skills that are essential for every child to progress through school and life, such as reading, writing, spelling and numeracy. The assessments are undertaken nationwide, every year, in the second full week in May. The National Assessment Program – Literacy and Numeracy (NAPLAN) is an annual assessment for students.

conferences and done a TED[43] talk about differentiating Mathematics. These are all forms of reification, a sign of a strong practice that can share its ideas and strategies with the wider community (Wenger, 1998). As P2 acknowledged, “Yes, looking at the growth that happens to students from Year 7 to Year 9—how much they improve through a program like this, compared with what is happening in other schools.” This is indeed an ideal outcome from a CoP.

Overall, the success of this Community of Practice at City School can be attributed to the vision of L1 and L2 who saw the need to change the traditional way Mathematics was being taught at the school and to address the needs of students who were consistently underperforming. As was discussed in Chapter 2, they were the *social artists* that Wenger (2009) defines as those skilled in inspiring and encouraging others to join CoPs and facilitating their learning in the best possible way. L1 and L2 were courageous and visionary in establishing in 2008 a CoP which would provide teachers with the opportunity to work together to move the school beyond streamed classes in Mathematics to a differentiated curriculum. This is what Garmston and Wellman (2016) had in mind when they talked about teachers being adaptive rather than of being adapted as is traditionally the case. Having social artists to initiate and facilitate the development of a CoP would appear to be a key to its success: “The facilitator plays an important role in creating and sustaining the organisational structure and the culture that fosters community, collaborative learning and significant learning and teaching impacts” (McDonald, 2014, p. 13). The three ECSTs who stepped into such a productive and well developed CoP were fortunate, even though the downside, for one, was not having as much leeway for creativity as might have been possible in a newer CoP.

A similar degree of commitment from a school can be seen in the next example where two different types of CoPs were set up to improve teacher practice, this time in a regional Victorian school.

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[43] TED is a media organization which posts talks online for free distribution, under the slogan "ideas worth spreading". TED was founded in February 1984.

School Two: Rural College, Victoria

Rural College is a co-educational Catholic school in rural Victoria. The school was first established in its current format in the 1970s when a boys' college and a girls' college were combined. It had a 2016 enrolment of over 1000 students from Year 7-12, with a teaching staff of almost 100 teachers. Its ICSEA value was 1033, relative to an average value of 1000. The school, which has experienced a significant growth in size in recent years, caters for a wide range of student abilities and is non-selective[44].

In recent years, Rural College has made a significant commitment to the professional learning of its teaching staff through the implementation of two significant ventures. Several years ago, the Group 8 Performance Development and Coaching program[45] was introduced at the school. This is a commercial program that is based on the three principles of feedback, teacher development and cultural change through cognitive coaching. The program initially involved training sessions for staff and middle and senior management levels. Randomly chosen classes for each teacher in the school were then surveyed once or twice a year and the results analysed by the Group 8 Company. In the first year of the program, the results were distributed just to the individual teacher. In the following year, the data were distributed to both the teacher and their coach. In the third year of the program, the data will be distributed to the teacher, their coach and the school leadership. Several times a term a trained middle or senior level coach meets with a small group of teachers to which they have been allocated. These groups are no larger than four people and form a Community of Practice, in that those involved share aspects of their data and work together to support each other. There is a strong emphasis on the relationship between the coach and those coached by them. All staff are required to belong to a Group 8 community and are allocated to them by senior leader, L3, loosely in domain areas. The fact that this is not a

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[44] Non-selective schools do not use screening/testing purposes for their intake of students

[45] The Australian based Group 8 Performance Development and Coaching program provides a structured methodology, which has proven to increase teacher effectiveness, which directly impacts student-learning outcomes in Australian schools.

voluntary involvement is not ideal, as there is a risk it might "deflate the very social energy that makes healthy communities of practice places of meaningful learning" (Wenger-Trayner, 2017, para. 1; May & Keay, 2017). However, this did not appear to be an issue for the ECSTs from this school who participated in this study.

The second professional learning initiative for Rural College was the introduction of Professional Learning Teams (PLTs) in 2016. These involved teachers nominating an area of interest or issue that they would like to pursue and other teachers signing up to join them. Each team had a particular focus or domain and consisted of up to ten teachers who met weekly as a Community of Practice. All teachers were required to belong to a PLT but they had a choice as to which PLT they would belong.

Participants at Rural College were drawn from a number of ECSTs at the school. Most participated in either a focus group or semi-structured interview, although some did both. Their demographic details are provided in Table 5.2.

Table 5.2.

Demographic details for Rural College participants (*n* = 7)

Participant	Age	Years of Teaching	Subject Area
P4	26–30	<1	Humanities
P5	<25	<1	Humanities
P6	26–30	<1	Humanities
P7	26–30	2-3	Psychology
P8	26–30	<1	Science
P9	<25z	2-3	English
P10	<25	<1	Humanities

(Note. Age and years at the time of Round 1 interviews.)

Each participant belonged to both a Group 8 and a PLT community. They ranged from graduate teachers to those who had been teaching from two to four years. In particular, one ECST belonged to an English Community of Practice that had received special funding from the Victorian Association of Teachers of English (VATE) to investigate declining reading levels in the school. A focus group consisting of five ECSTs was conducted,

as well as individual interviews with three of the teachers. The researcher spent two days at the school conducting the focus group and some of the interviews, speaking to key personnel, including the Professional Learning Leader (L3) and informally observing several classes and one of the Group 8 meetings.

Cycle 1: Immediate Value

Each of the five ECSTs involved in the focus group and the three participants who were individually interviewed (one of whom also participated in the focus group) spoke about being introduced to a welcoming environment and a culture of support from their first encounter with Rural College. Immediate Value was evident in P4's reflection: "I'd say I found a lot of support at Rural College and I think there's already some great structures in place for supporting the newer teachers." Similarly, P5 who had come to the school from Sydney, found a strong sense of social connection within a supportive community where, "everyone was just so friendly and willing to bend over backwards to help me." This included other teachers and families inviting her out to dinner, which she greatly appreciated. Strong social connection initiatives by the wider school community are particularly important in rural and remote areas where many ECSTs are away from their family and friends. As P6 summed up, "I think the friendliness is definitely a massive thing about Rural College. You just walk in—you get people smiling and going out of their way to help."

All the ECSTs were also given mentors, which they highly valued, alongside the support of the rest of the staff. As P4 reflected, "You have your official mentor but I think most people have extra people that they can also draw on, which is very supportive, very good." The Queensland College of Teachers (2013) noted in their questionnaire of graduate teachers that having an allocated mentor was one of a number of necessary types of support that would encourage an ECST to stay on in a school. Each school has its particular procedures and ways of doing things and without an accessible mentor from whom to get advice, the early weeks of an ECST's career can be exceedingly daunting. As L3 reflected, in regard to mentors,

"Yes, I think that's probably more important for those beginning teachers here. And that's something that we do for all our new staff, which is great."

In addition, Rural College provided an induction program for beginning teachers which extended over most of their first year. As P10 reflected, "It's been very good just to go through the things like induction that everybody expects you to know but you don't necessarily know." This involved not only organisational information at the start of the year, but ongoing group meetings with L3, who was given a specific role to work with beginning teachers alongside his work in coordinating CoPs at the school. This aligns well with the AITSL (2017b) priority of a sustained induction that includes ongoing professional learning, not just a "short orientation" (p. 10). Rural College was clearly moving towards this, as is evident in P4's comment:

> First term… we used to have meetings of all new staff. So, we'd have a specific time with L3. I think our Principal would be there as well and we'd have all the mentors and all the mentees would sit around a table and we'd voice any concerns. And then you've got everyone in the room. So, we did it here sometimes. And that was pretty frequent—I know in first term, I think it was every two weeks.

She also added that, after their initial orientation, the meetings became more Victorian Institute of Teaching (VIT) orientated. These are demanding requirements that all graduate teachers must complete to move toward the next stage of being a proficient teacher. As was noted in Chapter 4, casual relief and short-term contract teachers particularly struggle to complete these requirements. The ECSTs at Rural College were fortunate to have both L3 and their induction group with whom to work through these challenges. To assist with these time-intensive tasks, all the graduate ECSTs also had a four-period reduction of their allotment, somewhat similar to the experiences of Scottish ECTs that were mentioned in Chapter 2.

It is interesting to note that the Principal was sometimes present in these gatherings. This adds prestige to the group (McDonald, 2014) and would appear to give a strong message to ECSTs that their welfare is a

priority in the school—exactly the type of environment that Hargreaves and Fullan (2012) have in mind when they speak of schools that give early career teachers the opportunity to work in "dynamic, strongly supported schools" (p. 70).

The two different types of Communities of Practice at Rural College—Group 8 CoPs and Professional Learning Teams (PLTs)—provided the ECSTs with a range of experiences that they valued. In terms of Immediate Value, for P4, it was the chance to learn from more experienced teachers in the Group 8 community. As she reflected, "The best part about it is that it's not just all young teachers or all new teachers. I'm in with a quite senior teacher who's been teaching for nearly 40 years." This was also the case with P7 who appreciated the opportunity to get advice from people whom she would not normally sit down with. These more experienced teachers appeared to be the beneficiaries of the tacit knowledge of more experienced teachers that Kemmis et al. (2014) and Sternberg and Horvath (1999) describe. In addition, some participants found it helpful to hear from teachers of different subjects:

> Some people think differently. So, a Maths person's brain is so different to an English person's brain and what I might conceive as one thing, somebody sees differently and you can get different advice and things like that.

This highlights the value of bringing together teachers from different faculties, as P19 and P20 also mention in Chapter 6. It would appear to be a way of breaking down the silos that different faculties in a secondary school can tend to create (cf. Adamucci, 2017), whilst also avoiding the risk of CoPs turning into faculty meetings. As the Group 8 communities were small—not unlike the triads that are discussed in Chapter 6—with no more than four members and a coach, there was a chance for newer teachers like P7 to engage in intimate, non-threatening conversations about specific aspects of their practice arising from the data that had been gathered from their classes.

Immediate Value for ECSTs at Rural College primarily came from the PLT groups as they met weekly, as opposed to the less frequent Group 8

meetings. P10 found the PLT preferable to the Group 8 community because he had some choice in meeting with others who had a similar interest in a topic and because the process was less structured:

> I've found the PLT really good because it was actually pro-active in what you were interested in and you directed where it was going. And I thought that was better support because the people you were with were actually interested in the same topic as you.

P4 spoke of a group she belonged to called "new to Rural College" which helped fill in the gaps for not just graduates but anyone new to the school, whilst P9 was in a mixed group of English teachers and librarians which she described thus: "It's fun—it's been challenging but it's fun. A good group of teachers too." There would appear to be great value in librarians, learning enhancement and other support staff being incorporated into CoPs.

The fact that this school chose to run two different CoPs, one of which involved a choice of focus/domain, meant that each ECST was able to find one that best suited them. Although membership of these CoPs was not voluntary, they did have a degree of flexibility, in that teachers could move from one to another if they had a significant reason for doing so.

Cycle 2: Potential Value

Participants in both the focus group and interviews showed evidence of Potential Value as they reflected positively about the value of receiving data from their classes through the Group 8 Community at the start of Term 2. Although the idea of surveying students would appear to be a somewhat threatening idea for some older teachers and for casual relief and short term contract teachers (see Chapter 4), these newer teachers welcomed the honest feedback they received from the Group 8 organisation which processed the surveys. This is in line with the findings of Williams (2012) who found that the feedback students give teachers can be more powerful than the feedback teachers give students. Similarly, the research of Jacob and McGovern (2015) with 10,000 teachers and 500 leaders in three public schools in the USA found that giving teachers a clear understanding of their strengths and

weaknesses through honest feedback was the single most important way of helping them improve. All other ways of receiving professional learning did not appear to generate significant improvement in teachers' practice. The importance of working with this feedback in a supportive environment cannot be underestimated. However, if ECSTs have to deal with this feedback alone or know that it is being directly transmitted to their Principal, it can be very threatening. Significantly, this was not the case at Rural College, where the process operated in a constructive and supportive way. As P7 reflected:

> We'd get feedback from our students and then see if maybe we had some areas of weakness or things we could improve on. And then come up with goals and strategies how to improve on those things. And then within our group, we could talk to other people and get ideas from others about what we could do.

The fact that these ECSTs worked closely on a regular basis with their coach in their Group 8 communities on credible data from their classes, suggests that they were in an ideal position to develop their practice. This is in line with the findings of Lofthouse and Hall (2014) on the value for teachers engaging in effective professional dialogue based on relevant local data. The coaches at Rural College received ongoing training from the Group 8 organisation and from other senior leaders. As L3 explained,

> The senior level leaders, so the POLs[46], are coached individually by a Group 8 facilitator. And then each of those leaders coach a middle level leader and that's done on a one-on-one basis and the focus is on their leadership. And then middle level leaders take groups of staff.

Training and the seniority of the coaches would appear to assist in providing the rigorous feedback that Jacob and McGovern (2015) envisage. As L3 went on to explain, the coaches were usually in the same faculty as the ECST that they coached, ensuring that they were in tune with each other.

[46] A POL is a Position of Leadership within a school community.

This cycle of collecting data, reflection and discussion was essentially built on a culture trust and appeared to be awakening a sense of professional identity in participants. When asked if the coaching aspect of the COP was the best part, P4 said, “Yes, just in terms of being able to have conversations with people about what we’re really doing in the classroom. You know, there’s not many opportunities that exist in any other area.” She also was reassured in knowing that even teachers with twenty or thirty years’ experience had some of the same issues in the classroom that she did. It would appear to be an ideal situation to have teachers with different levels of experience within the one community, so that ECSTs can draw on the tacit knowledge of the more experienced teachers (Kemmis et. al. 2014, Sternberg & Horvath, 1999) and these teachers, in turn, can benefit from the new ideas and enthusiasm of the ECSTs (as discussed in Chapter 4). Although the members of these CoPs did not all necessarily teach the same subjects or year levels, there was enough common ground for them to develop shared goals and reflect on shared concerns.

Potential Value for P9 came from her involvement in the English PLT in her third year at the college. She admitted that her early experiences at the school had been difficult, finding students in her English classes who could not read. She knew that she could teach texts, teach persuasive writing and use ICT effectively, but nothing in her English curriculum subject had prepared her for teaching secondary school students to read. Her attempts to meet the needs of these students had only limited success. As she lamented:

> So, I modified all their work, changed all the questions to suit their ability but I had no idea what I was doing. I had no idea how to teach them to read.

The solution for P9 was to use her weekend and holidays to finish her Master of Education degree in Melbourne, specializing in literacy and become involved with the English PLT. Here she found three other English teachers who had each been primary trained, as well as two librarians. When asked if she found this a helpful group to belong to, P9 responded, “Yes, because they know how to teach kids and librarian 1 and 2 do our reading achievements program, so they know how to teach kids to read.” The group

was highly supportive for P9 and her social connection was enhanced: "And just the conversations we have are really fun and it's a great group of people." This is an instance where a subject-specific CoP was the better option. It also points to the value of including auxiliary staff, such as librarians or learning enhancement staff in a CoP with teachers from different faculties.

Cycle 3: Applied Value

Applied Value was evident in the way P9 went on to describe how her involvement with the English PLT continued to develop. With funding from the VATE, the community was able to begin an action research project in which they asked students in their classes to draw pictures about what reading was like for them. The group then analysed the drawings and divided students into three different categories. A selection of these students was then interviewed and the interviews partially transcribed. At the time of this interview, the CoP was just beginning to analyse the comments students had made and to plan strategies to share with the rest of the staff. For P9, this entire process had been energising and she had developed a strong sense of professional identity, evidenced by the leadership roles she had subsequently been asked to take on, including Domain leader and Group 8 coach.

Other participants, such as P8, found that development in their practice occurred through having a secure position in the school and being able to teach certain units more than once. As he reflected:

> For myself, the fact that I've had that longevity thing guaranteed already, and the fact that because you're starting teaching you can refine really quickly—like, I've already taught the subject three times, so each time you I've reinterpreted it. So, it's a huge benefit for a graduate teacher to have that.

This links back to the key problem discussed in Chapter 2 and illustrated in Chapter 4 in regard to the casualisation of the teaching workforce. P8 clearly illustrates the value that can come to an ECST in

having a secure position. They can then expend their energies in developing their teaching strategies and building their professional identity and self-efficacy, rather than continually worrying about ongoing employment issues.

P4 appeared to demonstrate increased self-efficacy and an emerging sense of professional identity as she moved into the second year of being part of the Group 8 community. She noted, "Yes, they're amazing the amount of reflection that's still with you and makes you think still think about, Ok, what I am doing. I can change and reflect on it." This aligns with the recommendations Lofthouse and Hall (2014) that were referred to in Chapter 2 about the importance of disciplined, focused reflection. Similarly, P7 found herself thinking back over what occurred in the community and making conscious changes to her teaching strategy: "I'm really starting to think, oh yes, we did talk about this. Maybe I could present this information differently." In the fast-paced world of many schools, the opportunity for ECSTs to be able to stop and reflect is commendable, providing the semantic space that Lofthouse and Hall (2014) refer to.

Cycle 4: Realised Value

By the time of her second interview, P4 was beginning to reap the benefits of involvement in her Group 8 CoP. Wenger et al. (2011) speak of this cycle as being one where increased satisfaction is evident in participants. P4 had found that a deep level of trust had developed within this small group: "Oh, there's just the three of us and we've got nice little, intimate conversations." These are the type of "enabling relationships" that Timperley (2015) discusses: "Those that integrate trust, openness, challenge and mutual respect in ways that develop the agency of the participants to improve and change outcomes (p. 52). P4 was also showing agency as she worked with her group towards their goal of differentiation to better address the needs of the diverse range of students in their classes. Successes and failures were regularly shared and strategies modified and adapted:

> Yes, just in terms of sitting down and having conversations with people in my Group 8 community. It's like, have you tried this, have you tried that? You know, just bouncing ideas off

> my coach. And it certainly helped me in the way that I set the class up and I know then to have the routine to go and check in on him [a weaker student] and make sure he understood what I said and if I need to break it down further and just help get him on task.

This is a school working at an optimum level, allowing ECSTs to develop their practice, knowing that they have a consistently supportive, non-judgemental group of more experienced teachers to turn to assist them. Although seven different ECSTs were involved in either the focus group or interviews in this school, not one spoke of any disadvantage or degree of frustration in being part of either CoP. It is also a school that has invested time and resources to establish these communities and to carefully monitor their development, exemplified by the role given to L3 to work with ECSTs and oversee the CoPs in the school. Rural College emerged in this study as the strongest example of a culture of growth of any of the schools that were researched.

The final example, although operating quite differently from this school, displayed a similar degree of commitment from the leadership of the school in ensuring that teachers had the time and opportunity to learn from each other in, again, two CoPs.

School Three: Remote State High School, Queensland

Remote State High School (RSH) was situated in an isolated part of Queensland. The school opened in the 1960s and had an enrolment in 2016 of 540 students from Year 7–12, with a teaching staff of just of just over 50 teachers (My School, 2017). Although not highly multicultural, approximately 14% of its students were indigenous. Its ICSEA value is 914, which is quite low, relative to an average value of 1000 (My School, 2017). As a result of these factors, the school has had to deal with students with complex needs and wa preponderance of young teachers who typically only stay for a mandatory three years before returning to the coast. Prior to the

introduction of two Communities of Practice, literacy at the school was a concern, with low student achievement for NAPLAN[47] for writing.

In recent times, the school had been fortunate to procure a Master Teacher status for one of its senior teachers, L4. The role of a Master Teacher was developed by the Department of Education and Training, Queensland in 2015 as part of a State initiative to lift literacy and numeracy levels at selected schools. The Master Teacher is relieved of teaching duties to allow time for them to work with staff and school leaders to build their capacity. Their role includes:

- providing coaching and guidance to teachers;
- supporting staff in the analysis of, and response to student data;
- improving pedagogical practice by researching and modelling quality teaching. (Department of Education and Training, Queensland, para. 1).

L4 fulfilled these criteria by setting up two collaborative teacher programs—a Master Class and an English Community of Practice[48]. The Master Class involved L4 modelling different teaching strategies and the use of different ICT tools to the staff. Whilst attendance at the Master Class was initially voluntary, its success led to the Principal making it compulsory for all staff. The second initiative, the English CoP, initially consisted of Year 8 English teachers who volunteered to be part of it. However, in the following year, membership broadened to include teachers from different faculties and year levels. The CoP's aim was to improve writing skills across the school, through working closely with NAPLAN data and developing tools that students could use to assist them with their writing.

Participants at Remote SHS (P39, P42 and P43) were drawn from ECST members of the English CoP and Master Class CoP. Their teaching experience ranged from one to three years. Each belonged to both CoPs. Demographic details are provided in Table 5.3.

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[47] NAPLAN is The National Assessment Program – Literacy and Numeracy (NAPLAN) is an annual assessment for students in Year 3, 7 and 9.

[48] This is a pseudonym for the name of the CoP, to preserve anonymity.

Table 5.3.

Demographic details of Remote SHS participants (*n* = 3)

Participant	Age	Years of Teaching	Subject Area
P39	26–30	3–5	Health/PE
P42	<25	2–3	English
P43	>35	1–2	Humanities/English

(Note. Age and years at the time of Round 1 interviews.)

Cycle 1: Immediate Value

Immediate Value was evident in the way each of the three participants who were interviewed spoke so effulgently in their praise of the two Communities of Practice in which they found themselves. As one mature-aged participant, P43 put it, “any support you need is there.” She went on to speak about the “nurturing environment” of the school and how nobody was left on their own. For graduate Physical Education teacher, P42, having to teach English when it was not his main curriculum area—an Out-of-Field subject (cf. Weldon, 2016), something that is not uncommon for ECSTs to have to do in a remote or rural school, was facilitated by him having the English CoP to support him. He explained how “awesome” Master Teacher, L4, was:

> When I first started, I wasn't confident teaching English, because I'd never done it before, but it was something that I wanted to teach. So, teaching how to structure a sentence properly and how to structure a paragraph. And I felt as though, in the space of a term, my teaching ability was just through the roof because of it.

The value of the English CoP for P42’s self-efficacy was clear. He knew, like the teachers in the City School, that an experienced team of educators had developed the materials he was using and that consulting the group could easily solve any problems he had in using these materials. As he went on to say, “It just means you get all these resources given to you and you get them and a little bit of time to practise them and actually implement in your class.” The regularity of English CoP meetings was also

important in this regard. The CoP met fortnightly, often for short meetings from 8-8.40 am. As L4 reflected:

> Well, we've found that that has been the most successful way to go about it because they felt that short and sharp, quite regularly, is much more efficient than a long meeting, because we tend to—because we're conscious of time—cover a lot and we just chunk it.

This highlights the fact that CoP gathering times do not necessarily need to be long and that perhaps frequency is possibly a more important consideration than length of gathering times. Wenger-Trayner et al. (2017) indicate that expected levels of participation in a CoP should reflect the reality of the situations members find themselves in. Given that schools are very busy places, the early morning meetings appeared to be a good idea, although whether they precluded those with family commitments is not clear. L4 felt that although sometimes afternoon meetings were needed for more extended tasks, the morning meetings were preferable, with teachers telling her that it "re-energised" them for the day ahead. Breakfast team meetings also generally involved refreshments, an important aspect of building the social dimension of a community.

For P39, in her third year of teaching, the English CoP and the Master Class had become her main sources of support, particularly as she had not been given a mentor when she first started at the school. She indicated that she felt a strong sense of affinity with these communities:

> That's been awesome—really, really good! So, it started last year when I was in my second year and that was really good just to be part of it, like a community of teachers, I suppose.

P39 clearly appreciated the social connection of belonging to two CoPs and the chance to develop her teaching skills. P39, like P42, also taught a range of different subjects and the resources she was given, such as the paragraphing template and literacy place mat that the English CoP had produced, were ones she could use across the board in each of her subjects.

Cycle 2: Potential Value

A typical indicator of Potential Value for Wenger et al. (2011) is the level of trust involved in "bringing up difficult problems and failures from practice" (p. 28). This was clearly evident with P39 who valued the fact that she could mention problems without being judged. As she reflected:

> You can feel comfortable saying anything about what your successes were, what didn't work, because you're going to get that support. "Have you tried doing it this way?" … And you don't feel judged or if you're not successful with something. I think it's super supportive.

This again reflects the findings of Timperley (2015) mentioned earlier in regard to the trust that is needed within a CoP for ECSTs to feel confident to share their struggles and failures, without fear of censure or being considered incompetent. For P43 too, as a mature-aged ECST, the importance of other teachers looking out for you, "having your back", was immeasurable. She went on to say that for all new teachers, whether they were younger graduate teachers or mature-aged like her, there was strong support: "You see that it's a nurturing environment that is there for everyone. No-one's left on their own. Any support you need is there." This was also the case with P42 who was on a contract when he first started. In many schools, ECSTs who are on contracts—an increasingly common situation (see Chapter 4)— are hesitant to admit problems or failures for fear that word will get back to the Principal and their contract might not be renewed (Bamberry, 2011). However, this was not the case at Remote SHS where, as L4 described, at the typical morning meeting little successes and failures were shared by both the experienced and the less experienced teachers alike, in a very supportive and non-threatening atmosphere. He particularly valued the support of L4:

> L4's just that sort of person that you could approach and say, I did this and it didn't work. What can I do next time? And she'll be like, that's interesting. Let's try it again together. She'll actually come in to my classes.

L4 clearly embodies the characteristics of a social artist (Wenger, 2009) with her capacity to “engage the hearts and minds of everyone; and focus their collective intelligence, talent and commitment to shaping a new path” (Fullan & Quinn, 2016, p. 47). In addition, the fact that the Principal was also part of the English CoP, coming to most meetings and sharing his own successes and failures, was also a reassuring factor for these teachers. This, in fact, is one of the key ingredients of the success of this CoP. As L4 reflected:

> I think that's been one of the key things that has led to its ongoing success. He was very supportive from the beginning and he has actually attended every single meeting, except for one when he had another commitment. But he has made it a priority, to be a part of it, and to be a part of supporting it. So, he comes to every meeting and he participates in it like he's just another member of staff.

The role of a champion featured strongly in the thinking of Wenger, (1998) and of Wenger-Trayner et al., (2014), particularly in terms of “enabling value” that makes the life of the community possible. It is also part of Fullan and Quinn’s (2016) understanding of “coherence” where leaders model learning by learning themselves, adding “impact and prestige” to the gathering and allowing staff to see that the Principal is learning just as much as they are (McDonald, 2014, p. 27). Not all Principals would necessarily have the time to be as involved as this, but at least some level, hands-on involvement would appear to be a necessary feature of school-based CoPs. It is important to note that the Principal is not called on to lead or facilitate the CoP but to participate as any other member.

When L4 was asked, what would happen to the English CoP and Master Class communities if she was to leave the school, she said that their life was assured by the combination of a number of factors. One was the support of the Principal, as already discussed; the other was the fact that all the heads of department were involved in the English CoP, by choice, and were gradually being trained and mentored by her. She also stressed that the

community was more than her, even though she was held in such high esteem by the rest of the staff: “We've made it such a team thing and it's not about me. It's about our team.” As discussed in Chapter 2, this is what Garmston and Wellman (2016) have in mind in arguing that, “A collection of superstar teachers cannot produce the results of interdependent colleagues who share and develop professional practices together” (p. 16).

Cycle 3: Applied Value

The key indicators for Applied Value, according to Wenger et al. (2011), are that participants are trialling new ways of doing things and making effective use of the tools and resources they have been given. For P42, it was the accountability of the regular fortnightly English CoP meetings that encouraged him to try the new resources he had been given between meetings and experiment with them in different ways: “It means you get all these resources given to you and you get them and a little bit of time to practise them and actually implement in your class.” He went on to speak about the increased confidence he had felt in using these materials and being able to explain things more clearly to his classes with the use of the templates that the English CoP had developed. Teacher efficacy is described by Hargreaves and Fullan (2012) as a teacher’s “judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated” (p. 69). This appeared to be the case with P42, whose self-efficacy was soaring, as he refined his use of the templates through ongoing feedback from the English CoP.

By the time of his second interview, P42 had been given a senior English class and was on a steady pathway of improvement as he continued to trial the ideas presented to him by L4 at the regular English CoP team meetings. His greatest strength was in knowing that he had the support of L4 and the CoP behind him. As he reflected, “As a new beginning teacher, it gives you the confidence to try it, at least, and know, if you fail, you've got an outlet.” He knew that he only had to speak to L4, who would have no hesitation in offering to team teach with him to help him master the strategy. This sort of confidence, to try without fear of failure, is what would appear

to most build a teacher's self-efficacy. There was a noticeable difference in P42 in this second interview in terms of his enjoyment of his teaching experience and his satisfaction in seeing his teaching practice developing.

The benefit of having Communities of Practice for P39 in her own school, compared with leaving her classes and travelling to conferences and seminars was a no-brainer. Not only is this a practical issue in remote schools like this, where the nearest professional learning is likely to be offered at a venue that is at least two and a half to four hours' drive away, but also a question of relevance. It also begs the question of online CoPs (see Chapter 6). As P39 reflected:

> And it is school specific, you know, things that you can use straight away. Whereas, you know, sometimes you go to professional development classes and you can maybe use half of it, whereas you can use all of it straight away the next day.

She clearly appreciated the context specific nature of each of the CoPs at her school. For the English CoP, the agenda was soundly placed on data predominately from the last NAPLAN. As L4 explained, the data are used to see where a student was in Year 7, for example, in terms of vocabulary, and then, through discussion, to determine if, now in Year 8 or 9, they are still on that criteria or have they improved or gone backwards. This helps to ground any discussion in the reality of the students that attend the school and to ensure that the resources and strategies that are generated are differentiated to cater for specific levels of achievement. As L4 reflected:

> A lot of the strategies hit lots of different levels, but just so they're consciously aware of, when they're choosing the strategy that they're going to use, that they're considering the levels, always considering the levels of the kids in the class.

For the Master Class community, the activities centred on the school's pedagogical framework, again a locally generated document. Rather being a static document, as might be the case in many other schools, this document came to life as L4 modelled different parts of it. This was particularly appreciated by P43, who explained, "It's very popular" and "each of the

things she demonstrates, you can take it back and the very next lesson you can use it and you can apply it to just about every subject as well." Although this community met less regularly than the English CoP, it still rated highly with all participants.

Further evidence of Applied Value can be seen in the way that the resources from the English CoP, that began from the English faculty predominantly, had spread across the school, being now used in subjects as diverse as Physical Education, Finance and Manual Arts. This is the *reification* that Wenger (1998) defines as one of the key outcomes of a CoP's practice. These physical learning objects—literacy mats and paragraph templates— which had been distributed to all staff at the school, capture the success of the CoP and were a source of amazement for P42:

> We have HPE teachers coming in now because they really want to know how to paragraph or teach paragraph structure. We had ITD or Manual Arts teachers coming in because they just want it to transfer it across the board, which has been really, really awesome to see. And there's even Maths teachers coming in because you need to be able to teach these skills across the board.

There would appear to be great benefit for students to have a common language to fall back on across of all of their subjects. Literacy had become a whole school concern, not just the concern of the English faculty.

Cycle 4: Realised Value

Student success and public recognition was gradually emerging for Remote SHS. Now that the English CoP was in its third year of operation in 2016, teachers were starting to see improvements in student achievement, with students having had a grounding in writing and paragraphing skills from the previous year with the literacy maps and paragraph templates. With the release of the 2016 NAPLAN Writing data there was cause for celebration for Remote SHS, with an improvement in writing data for the first time in six years. This is displayed in Figure 5.2. As L4 explained, the mean score had increased – 493 in 2015 to 512 in 2016—a movement of 18

mean scale score points. Interestingly, it was observed that there were also notable individual improvements in the "tail" of their student cohort (cf. Hattie, 2015, 2016). The students of Remote SHS seem to have been the beneficiaries of the English CoP approach from Year 7 to Year 10. As Figure 5.2 illustrates, Remote SHS has also closed the gap between their mean scale score and that of the nation. In 2015, their score was 493 with the national average at 582. As L4 reflected "The results were really affirming for the work our English CoP team has been doing and the changes we have seen in 12 months."

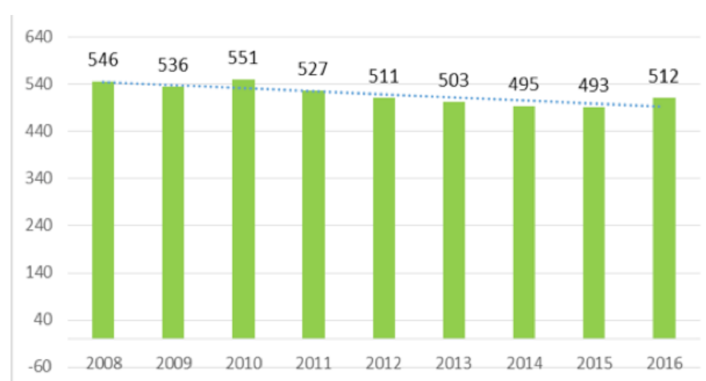

Figure 5.2. Remote SHS NAPLAN Writing Year 9 trends 2008-16.

A further step that Remote SHS has taken was for all staff to complete questionnaires in 2016 for the Professional Learning Community Framework published by ACER[49] (Chapter 2). The results from these questionnaires comparing the English CoP with the whole of the staff, are displayed in Figure 5.3. This shows that the English CoP is clearly ahead of the rest of the staff of Remote SHS in each of the domains of professional learning. This is reassuring evidence of the value of group of teachers working together with clear purpose (domain) to change student outcomes and build a culture of teacher learning. There is evidence that the ECSTs in the English CoP have been given the opportunity to develop their self-

[49] The ACER Professional Learning Community Framework (PLCF) describes the five domains that characterise schools with a strong professional culture, based on a synthesis of research about the characteristics of schools that lead to improved student outcomes. Key elements, indicators and rubrics describe each domain in more detail.

efficacy and professional identity through being part of such a successful CoP.

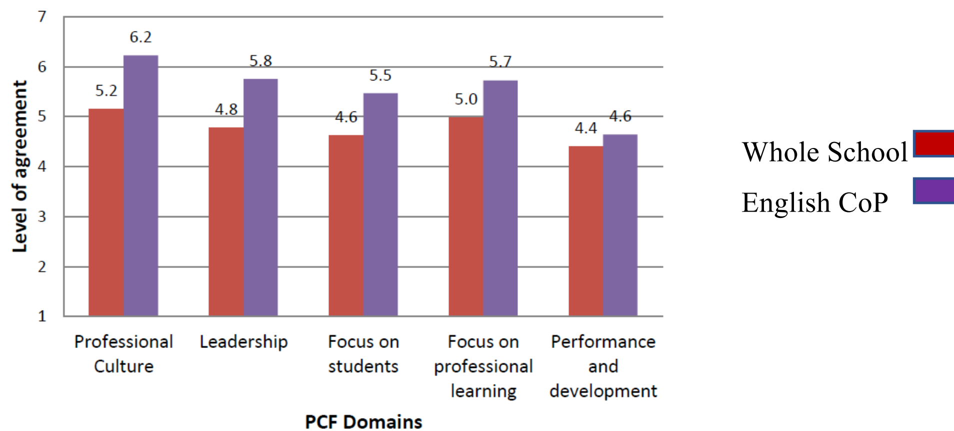

Figure 5.3 Mean total scores for the five domains of the professional community questionnaire (whole School and English CoP members)

Further, the English CoP has also begun to receive recognition both regionally and interstate. L4 reported on how the work of the team has been included as part of a regional writing project. She has also been invited to share her work with other Master teachers in the region and has been asked by the Director of School Improvement for Queensland to submit a synopsis of the project so far and gains made. L4 and two of her team have begun presenting workshops at conferences, including the ACER conference in Melbourne, 2016 and the Gold Coast, Queensland in 2017.

Conclusion

This chapter has examined the features of three exemplar schools where various forms of Communities of Practice were set up. They have emerged as exemplar schools because of the consistent quality of support provided to early career secondary teachers and the collaborative cultures of learning they had established. The ECSTs who were interviewed or who participated in focus groups from these schools, spoke very favourably about how these communities had helped them feel part of the school community, whilst at the same time developing their teaching practice.

These are CoPs that Fullan and Quinn (2016) would speak of as having “coherence” in the sense of having a “shared depth of understanding about the purpose and depth of work” (p. 1). They are schools that focus on building teacher capacity and that are involved in a continual cycle of

improvement through the collaborative cultures they have set up. In particular, these three schools demonstrate, to greater and lesser extents, the following three qualities defined by Fullan and Quinn (2016):

- *being very focused on student learning*: This was particularly evident in both City School and Remote SHS, both of whom focused specifically on improving student outcomes in Mathematics and English respectively (cf. Hattie, 2015, 2016). Fullan and Quinn (2016) recommend setting a small number of ambitious goals directly related to student achievement. This is what these schools did, using collaborative strategies to support the implementation and development of these goals. In each case, they were in low SES areas and were dealing with discouraging results in numeracy and literacy respectively. The ambitious goals that City School set with Mathematics and Remote SHS set with English/Literacy, propelled them forward, building the capacity of their teachers and demonstrating consistent student growth and, in the case of City School, becoming a model school for other teachers to visit.
- *having cultures of learning*: Each community appeared to have a "mindset of growth" (Fullan & Quinn, 2016, p. 40), influencing their decision making and the structures set in place to foster collaborative learning. At City School, for example, this involved the school freeing up L1 and L2 to work intensively with their Mathematics CoP to totally reshape the curriculum and mode of delivery of Mathematics for Year 7- 9 students. This was a massive undertaking, involving countless hours of work in devising differentiated lessons and constructing suitable materials. All this would not have been possible without leaders, social artists, who knew how to "engage the hearts and minds of everyone; and focus their collective intelligence, talent and commitment to shaping a new path" (Fullan & Quinn, 2016, p. 47). At the other two schools, there was significant support from the leaders at each school in terms of structuring meeting time for CoPs to meet and providing ongoing support, both financial and in terms of encouragement. These

schools also provided social artists, such as L3 and L4 to inspire and lead the staff. It is no easy task to totally change an individualistic school culture to a collaborative one, but these schools appeared to do have done so. A successful culture of growth at Remote SHS was also evident in the NAPLAN and ACER results illustrated in Figures 5.3 and 5.4.

- *having a deep commitment to learning:* This was evident in each community, but particularly Rural College, where the coaching element embedded in the Group 8 communities helped to establish "deep learning goals for the teachers involved" and "using collaborative learning to shift practices" (Fullan & Quinn, 2016, p. 80). The regular times that were set for teachers to reflect with their coach and others on their practice, using the data that had been gathered from their classes, ensured maximum opportunities to build teacher capacity (cf. Lofthouse & Hall, 2014). Fullan and Quinn (2016) maintain that what sets a school apart is not the variety of strategies they use, but the common language they build amongst staff. This was most notable at Remote College, where students were being exposed to the same literacy strategies developed by the English CoP, whether they were in Science, Physical Education or Maths.

Following on from these very successful communities that clearly show the value that ECSTs can gain from belonging to Communities of Practice, the next chapter will examine the experience of ECSTs in other Social Learning Spaces including school-based, those outside of school and online networks. The participants in these schools and communities also experienced considerable support in a range of different circumstances. Not all had such a pervasive culture of collaboration throughout the school as the exemplar ones in this chapter, but they nonetheless had specific features of value to their members.

Chapter 6 Varieties of Social Learning Spaces

The road was smooth and well paved, now, and the country about was beautiful, so that the travellers rejoiced in leaving the forest far behind, and with it the many dangers they had met in its gloomy shades. (Baum 2015, p. 45)

Having considered three exemplar school communities in the previous chapter, this chapter now moves to the qualitative data of other early career secondary teachers who participated in various other forms of Social Learning Spaces, including school-based CoPs, face-to-face external networks, online networks and various combinations of these. These will again be analysed using the Cycles of Value of Wenger et al. (2011). Throughout, the key criteria of social connection, self-efficacy and professional identity will be considered in light of how teachers involved in these Social Learning Spaces developed their practice.

The five different types of Social Learning Spaces that are to be discussed are:

- *Triads/small group CoPs*: These are CoPs with small groups of three to six teachers that have been set up in a number of secondary schools. They are deliberately small to allow for particular activities associated with them such as peer observation and coaching.
- *Small school CoPs:* These are schools with a relatively small staff that appear to operate as whole school CoPs or operate in a way that is only possible in a small school. Sometimes this is when a school chooses to place a particular year level on a separate campus. In other situations, it is a country or remote school that might fall into this category or a new school that is only gradually building up its year levels.
- *TeachMeet networks*: This is representative of teacher-generated, decentralised networks that have become an increasingly visible part of the educational landscape in Australia. These unconferences are unfunded and represent an effort by teachers to take control of their

own learning (Loughlan, 2012). TeachMeet began in Scotland in 2006, and has been present in Australia since 2011, predominately in Victoria and NSW, though more recently in Western Australia and in New Zealand since 2013. It, and other similar gatherings, involve teachers from different primary and secondary schools, different sectors, Higher Education, pre-service teachers and from placed teachers in various institutions gathering to share ideas and teaching strategies, normally outside of school hours. The teachers are connected through a variety of social media platforms including Wikispace, Facebook, Twitter and Google Plus communities. Through these sites, teachers indicate their intention to attend various gatherings or volunteer to present their ideas. They can also comment on the gatherings afterwards. The format of gatherings in each State varies, but generally it involves a number of either seven or two-minute presentations (participants choose from these two options), as well as time for social interaction between the teachers. This section will also include details from a TeachMeet that operated in a school situation in Western Australia.

- *Subject Associations:* These are generally State-based networks that are set up to assist teachers in particular subjects. The extent to how much an ECST might use them often depends on the subject they teach and/or the remoteness of their school.
- *Private Facebook groups and PLNs*: These are Facebook groups set up with a closed membership and generally for a particular purpose. In this study, private groups were often originally established when ECSTs were pre-service teachers as a means of sharing resources and ideas whilst on teaching rounds, as well as for purely social purposes. Some then transitioned into support groups for casual relief teachers trying to attain teaching positions. In other situations, they have been established early in a teacher's career with new colleagues from other schools who teach in the same subject area. Personal Learning Networks (PLNs) are set up generally on Twitter

by teachers to connect with other teachers from throughout Australia and overseas to share innovative teaching ideas.

The structure of this chapter is outlined in Figure 6.1

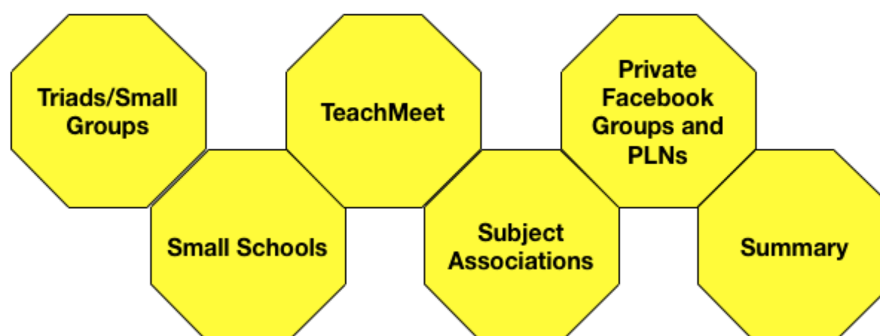

Figure 6.1. Outline of Chapter 6: Varieties of Communities of Practice

Triads/Small Group Communities of Practice

Communities of Practice consisting of small groups of three to six teachers were purposively set up in a number of schools to facilitate collaborative teacher interaction, foster classroom observation and, in some cases, work side by side with a coaching program. Schools varied in how they set up these small group CoPs and how they allowed them to function. In the first example (School 1), a triad was set up in 2016 for three teachers as a pilot to explore how CoPs could be introduced at the school in the following year. Membership was voluntary, as opposed to the other schools where there was a certain element of compulsion involved. Schools 2 to 6 had CoPs in action that had been operating for between one and two years. These schools were spread across three Australian states, Victoria, NSW and Western Australia. Demographic details of the teachers and the schools involved are displayed in Table 6.1.

Table 6.1.

Demographic of triads/small Communities of Practice (*n* = 7)

Participant	School	State	Sector	Age Group	Subject Area
P19	1	Vic	Catholic	<=25	Maths/Science
P20	1	Vic	Catholic	26–30	Economics
P21	2	WA	Independent	26–30	English
P14	3	WA	Independent	26–30	Languages
P13	10	WA	Independent	31–35	Humanities/IT
P52	17	NSW	Catholic	<=25	Humanities/IT

(Note. Age and years at the time of Round 1 interviews.)

The value that these ECSTs gained from being part of a triad/small group CoP in their school will now be examined, using the Cycles of Value Creation of Wenger et al. (2011).

Cycle 1: Immediate Value

Immediate Value comes from "activities and interactions that can produce value in and of themselves" (Wenger et al., 2011, p. 19). The small size of the CoPs that teachers in this section belonged to had specific value for them. Although Wenger et al. (2017b) do not specify any particular size for CoPs, they suggest that smaller CoPs allow for deeper interactions, though they warn of the danger that the group could become stale without new blood or more people in it. When asked if three was a good number for a group, as opposed to a larger one, P19 (School 1) replied, "Yes, because I think you're not a passenger. You know what I mean?" For those CoPs that were linked with observation and coaching, the small size of the group was advantageous, allowing teachers to develop enough trust to allow others to visit their classes, possibly more so than if they were part of a larger CoP. The value of observing each other's classes as an initial step helped P13's (School 10) group to understand their relative strengths and weaknesses and to decide what they wanted to work on as a group (their domain).

Most of the small CoPs in this section were composed of mixed faculty groups and a variety of age groups/years of experience. These features were appreciated by participants. For P13, the diversity of age groups and faculties was a real asset, as she explained: "I see a lot of merit

in what it is . . . we all have different strengths in the classroom but we've taken a really sort of relaxed approach to it.” P19 also felt that if they had been from the same subject area there would have been a tendency for them to focus on the subject content. As it was, the three were able to look more broadly at the teaching strategies they observed in each other’s classes:

> We can actually focus on the teaching and learning when you remove that perspective. I think we can look at cross-curriculum skills, broader kind of issues that we are trying to implement in the Victorian Curriculum.

He also valued having a more experienced teacher in the group as they could provide a context, an understanding of how particular students might be acting from having taught them in previous years, as well as knowing more about school procedures and protocols. P20 (School 1), too, found it beneficial to have this more experienced teacher in the same triad and to observe his classes: “The way he teaches is far more polished. And his time management, his resources, they're superior... Seeing him, his questioning, as well, is really helpful.” This aligns with Burke et al. (2015) who found in their research with NSW ECTs that what they valued most was the expertise of more experienced colleagues. Further, each school has its particular culture and the value of ECSTs learning from more experienced teachers about this is immeasurable.

P52 (School 17) also found great value in the triad to which he belonged:

> So, there's a lot of projection of ideas, and a lot of intake of ideas and it's really a lot of experimentation too. And it really facilitates our learning process, especially for a new teacher such as myself.

His school was going through a very innovative process of introducing problem-based learning to all Year 7 to 10 classes and the flipped

classroom[50] to all Year 11 and 12 classes. The triad that he was involved with helped him stay abreast of these new forms of learning in a way that was potentially more effective than him trying to do this on his own.

Cycle 2: Potential Value

Potential Value occurs when strategies and ideas begin to be implemented within a teacher's classroom, as well as when there is evidence of a growing level of trust within the CoP that allows for difficult problems to be discussed and failures acknowledged (Timperley, 2015; Wenger et al., 2011). As P21 (School 2) began to settle into her CoP and got to know and trust the others in her triad, she felt a growing sense of self-efficacy in that she felt she could go to them with any concerns:

> I feel a lot calmer in my own classroom because I know I have the support of my colleagues and I know that I'm well looked after. I definitely really enjoy teaching—really focusing on my teaching rather having to be worried about behaviour all the time.

She had experienced the benefits of observing other teachers' classes and having others observe her classes, the feedback arising from this giving her a sense of confidence that what she was doing was mostly working. Constructive advice about areas in which she could improve appeared to help her move forward. P21, in her fifth year of teaching, had worked in several other schools but in relation to this school reflected, "I don't think I've ever felt so supported in my entire career."

Potential Value for P52 came from gaining confidence in using a new Learning Management system in his CoP. He was fortunate to be in a school that put a high priority on professional learning for staff in having set up a Centre for Learning, led by highly innovative teacher and social artist, L5. The Centre had a strong research base and L5 had led significant change

[50] The "flipped classroom" is a blended learning model that requires students to view content—such as videos created by the teacher or PowerPoint presentations—so that time in class can then be spent in discussing the content or being tested on it.

within the school in terms of Project-based Learning and the Flipped Classroom. Ingvarson (2015) highlights the importance of having strong leadership within a school community to "foster and support a professional culture" (p. 4). The leader's role is to create a vision for the school and to strategically manage its professional communities. This is exactly what L5 at P52's school was able to do. P52 was able to then take this knowledge back to the classroom and use it to personalise learning for his students. As he reflected, "It's just better use to help facilitate learning for our students and monitor their progress for each of our units." This appeared to be a very practical outcome for him.

From another perspective, P19 found Potential Value occurred through the specific structure of the group procedures that his triad set up for themselves. What this meant, in practice, was that the group met at 8.15 a.m. on the day there was to be a classroom observation. This is similar to the early, short, sharp meetings that were a feature of Remote SHS's English CoP. As P19 explained, the person being observed that day would share their objectives for the lesson. Later in the day or the next day, the three would meet to reflect on the lesson and offer feedback to the one who had given the lesson. The discipline of regularly having to explain to his two colleagues his plans for his lessons and what he wanted to achieve provided Potential Value for P19 and assisted the development of his personal self-efficacy in helping him to be very clear about what he wanted to achieve in each lesson. When asked about how he felt having the other two teachers in the classroom with him, he exclaimed, "Love it! Love it! It just—it really forces you—even without their feedback—it forces you to reflect on your teaching in a way that I wouldn't be normally doing." Again, there is evidence of the importance of reflection (Lofthouse & Hall, 2014). P19 felt that the reason this was such a good process for him was that it made him more focused on his teaching, not necessarily because he was out to impress the other teachers in the room, but because the learning objectives from the morning meeting were foremost in his mind. It became for him a challenge to try to meet these objectives as effectively as he could, more so than on just a normal day of teaching when, as he reflected, "I'd be just rolling

through the paces and trying to survive and that'd be my first priority." This aligns with one of the key recommendations from the Grattan Institute report 2017, that all teachers have "regular opportunities to collaborate with their colleagues and to give and receive feedback on how to improve the classroom climate for learning" (Goss & Sonnemann, 2017, p. 4).

P20 found positive value in having the other two teachers observe him in the classroom in the sense that it provided emotional support for him. Rather than feeling threatened by others seeing the particular struggles he was facing, he welcomed others seeing these and working with him to find solutions. When asked how this experience had been for him, he replied:

> It was fantastic! Mostly, more than anything, it's the support…of having other teachers see what you go through, talk to you about it and understand what it is you go through when you're in the class with those students.

This is in stark contrast to what a number of casual relief and short-term teachers felt about other teachers viewing their classes (as reported in Chapter 4), highlighting the security that ongoing employment and a CoP that an ECST can trust can provide. P20 went on to reflect on the non-judgemental advice he was given about what they saw the students doing—things that he did not realise were happening. In addition, there was advice about his questioning technique and the resources he was using. This was all taken on board as he explained, "All this fantastic advice there that I will use and build on." As Timperley (2008) notes, "Professional conversations and improvement-focused feedback among teachers are essential for developing great leadership, teaching and student learning" (p. 6). In terms of visiting the other two teachers' classes, this was also a learning time for P20, where he began to see that all teachers have certain problems and that he was not alone in struggling with them. P20 had started part way through the previous year as a graduate teacher and, until the triad was set up, had not received any feedback on his teaching. When asked if this is something he would have wanted, he replied:

> Certainly, yes … if you want to get the most out of your graduate teachers, then you need a structure in place to support them, to observe them, to make them accountable, to give them feedback, to really make sure they know where the benchmark is and how to meet it.

Finally, P22 illustrated the Potential Value he was achieving when he reflected on his participation in his CoP:

> It's probably made me think about other people's practice more than my own, and consider the differences and ask myself why I am different to this.

The data suggest that if ECSTs can begin to reflect formally on questions about their own practice in a CoP, they are well on the way to building their self-efficacy and professional identity.

Cycle 3: Applied Value

Wenger et al. (2011) maintain that whilst participants might have knowledge capital as a Potential Value, it is only when they actually adapt and apply the material or strategies to their own classroom that Applied Value can occur (p. 20). Applied Value was evident with P21when she was able to take what she had heard in the CoP back to her classrooms:

> Yes, and then also being able to go into their classrooms, see them using those resources and getting the feedback from the kids as well as from the other teachers, is really helping—it proves that what you're doing is working or maybe we need to re-assess what we're doing.

Because her whole school was working on developing students' writing for specific subjects, it was very helpful for her to hear how this would work from the diverse range of members of her CoP and trial some of the materials herself. As she continued to reflect:

> I am extremely well-versed in the National Curriculum. I am also in a lead position to teach my peers about formative assessment and developing assessment for learning practices. I

> think as an early career teacher I am more aware of these newer practices and can share my knowledge with my school.

There was evidence of the professional identity P21 appeared to be developing through the expertise she has gained in her CoP, allowing her to potentially take on leadership positions and build her identity in the school community. Similar to the participants at City School, P21 has the opportunity to be a *broker*, taking her knowledge from her CoP to the wider school community.

Applied Value for P19, in terms of changes in practice, came from that fact that the triad he was in had a specific focus for each term. He found this helped him to regularly reflect on his teaching: “Yes, my clear focus for the next little bit is to keep improving my teaching, keep improving different skills within the classroom—differentiation—learning the content.” The fact that the triad planned to have a specific learning focus each term appeared to be beneficial for him in terms of keeping up his interest and helping him gradually build up an inter-connected range of skills over the course of a year. This strong domain, a “collective intention” to “steward a domain of knowledge” is a key community aspect of a CoP (Wenger et al., 2011, p. 9).

P20 experienced a development in his teaching skills assisted by the structure of triad meetings. As he explained, “It's a matter of thinking through something that will work, planning it and then testing it in the classroom and then revisiting. Just going through that process.” This is an example of a *learning loop* (Wenger et al., 2017b) and indicative of the self-efficacy P20 appeared to be gradually acquiring. He felt increasingly comfortable with the observation of his colleagues: “I always feel better when people can see what I’m doing and I’m held accountable,” and appreciated being reminded about teaching strategies such as differentiation, which are often talked about at staff meetings and professional learning days but are difficult to really put into practice. In fact, as Timperley (2008) reflects, “it typically takes one to two years for teachers to understand how existing beliefs and practices are different from those being promoted, to build the required pedagogical content knowledge, and to change practice”

(p. 15). P20 also commented on the deeper level of trust, the building of relationships that was developing in the group as they shared honest feedback. He found himself taking risks in the classroom, knowing that he had a group to fall back on if things did not go as planned. He had also begun to poll the students to get further feedback on his teaching and assist him in tailoring his lessons to their needs. These are all evidence of his increasing self-efficacy and agency.

Such a collaborative set up was particularly helpful for P21 as she had taken on her position at very short notice, four weeks into the term. Without such strong support structures, it is doubtful she would have experienced such success:

> It's really boosted my confidence, and particularly when we're looking at things like specific literacy—that's one of my big passions and so I've been supported by a lot of my group and I've been able to help them plan lessons and implement resources and things like that for them.

This would appear to be the best sort of support an ECST could expect to receive in coming to a school at a very difficult time, when classes have already begun and introductory procedures are finished. The CoP, in this instance, appeared to compensate for the lack of induction procedures for P21.

Cycle 4: Realised Value

Realised Value, in terms of experiencing an improvement in performance and a stronger sense of self-efficacy and professional identity, occurred for both P19 and P20 by the time of their second interview. The triad had made the decision to have the teacher being observed to be a silent participant when the two observers came to discuss the lesson. P19 felt this was a beneficial process, preventing him from trying to justify his actions in the lesson and allowing him to listen more intently to the feedback being offered to him. In terms of his teaching, he reflected that being part of the group over the previous nine months had been “a great strengthening factor” and that, “As time's gone on, I guess I'm more confident that I'm doing the

right things and on the right track." The rhythm of being regularly observed and being the observer in two other classes, as well as the respectful but honest feedback sessions he participated in, appeared to have built P19's self-efficacy and professional identity in a way few other processes might have achieved. He found himself continually challenging himself to become more creative in his approach and to more critically assess what was happening in his classes: "So, we always try and give some ideas—look for this. That's been good, that's been really good."

For P20 the new arrangement of being a silent receiver of feedback, although a little awkward at first for him, was an improved way of operating as a triad, allowing for a deeper level of listening: "Without defending yourself—it's very good." He also felt a stronger sense of self-efficacy in being so well supported and being able to regularly challenge himself to improve his practice:

> Well I think the most important benefit is that it has given us a safe space to take risks and it's also—in the sense it has given me a benchmark. So, I know what else is out there. I know what I need to do to do my job well.

Realised Value came for P52's school in the recognition that the school had received for their innovative approach to education. The Centre for Learning that L5 had set up was now attracting teachers from across Australia to participate in workshops that demonstrate how Problem-based Learning and Flipped Classrooms can be implemented in the classroom.

The only participant who did not find the triads at her school very helpful was P14 (School 3). She felt that as a part-time teacher it was difficult to arrange observation times with the other teachers in her group: "You're meant to observe x number of classes in a term when you don't actually have that number of classes or maybe the people you're paired up with are teaching at the same time as you." This highlights the fact that schools are very busy places and unless particular measures are put in place to assist teachers in effectively collaborating—such as allowing time in the timetable for teachers to meet—then difficulties of can arise.

In general, the teachers in these triads or small Communities of Practice were very well supported. They valued the support of their peers, which appeared to empower them to explore new ideas and strategies in their classrooms. The fact that the CoPs were mostly cross-faculty was also an advantage in exposing ECSTs to a variety of opinions and outlooks, more so than what they experienced in more traditional faculty meetings.

Small School CoPs

A number of participants in this study belonged to smaller school Communities of Practice. P15, for example, was part of a large, two campus school, but the campus he was on only housed one year level of 257 students, with 20 to 25 teachers on the staff. The rural school that P31 and P48 belonged to was a little larger but small enough that the staff formed a tight community for them to work within. On the other hand, P47 taught in a new school that was in its second year of operation, with only Year 7-9 students. Although there can be disadvantages with such small schools in terms of the Out-of-Field subjects that ECSTs often have to teach (Weldon, 2016), interviews with these participants revealed aspects of support that they received might not be so readily available in larger schools. Demographic details for teachers in this group are illustrated in Table 6.2.

Table 6.2.

Demographic details for small school participants (*n* = 4)

Participant	School	State	Sector	Age Group	Subject Area
P31	7	Vic	Catholic	>35	Humanities/ English
P48	7	Vic	Catholic	26–30	English/RE
P47	8	WA	State	26–30	Science
P15	11	Vic	Catholic	26–30	History

(Note. Age and years of teaching at the time of Round 1 interviews.)

Cycle 1: Immediate Value

Participants in small schools found that Immediate Value and social connection came from the facility of being able to get know most people and be known in a short space of time. P15 (School 11), for example,

appreciated the fact that everyone on staff knew each other and there were no cliques. As he reflected:

> They are very to open to just have a discussion and you find that you can just—well, I found I could just strike up a conversation anyway with anyone and that would invariably lead to 'how are you going?'

He felt that there was an "open door" policy operative, where he could always "wander into someone's office or classroom" should he have a problem or need someone to talk to. This was a positive and easy way of developing his social connection. Similarly, for P31 (School 7) there was an awareness of how supportive the staff were for each other and how willing they were to share their work and ideas. As a mature-aged ECST, P31 had worked in other industries and done casual relief work in two other schools before attaining this position. She was very aware how much more supportive this school was than any other environment she had been in before. P48 in the same school as P31, experienced an equally welcoming environment. She had been a teaching assistant in Learning Enhancement at the school before she was employed as a teacher there. This was a great advantage for her as she had done her teaching placements at the school and knew many of the students and staff when she began work there as a teacher. At a time when many ECSTs are find it difficult to secure teaching positions, it could be helpful for ITE institutions to promote the type of pathway that P48 took as a possible entry point to schools.

For P47 (School 8), there was Immediate Value in being part of one of the three CoPs at his school that consisted of teachers who taught the same core group of classes. This set up would be harder to manage in a larger school but worked very well in this newer, smaller school, at least for the current year before new year levels were added. These teachers shared an staffroom/office together as well as meeting more formally together in a CoP once a week. This aligns with what was found in Table 4.4 in Chapter 4 in that the most appreciated support for ECSTs was found in their staffroom/ office (70.1% agreement) and with other teachers in their subject area (63.6% agreement). P47 found it very helpful to learn from others in

the group about strategies that were effective, especially since they taught the same class as him:

> But it allows us to go, ok, you teach my students English, I teach them Science and the person on the desk beside me teaches them Maths. So, if I know that a particular teaching strategy works well with a[i] particular student, I can share it straight away with their Maths teacher or their English teacher. So, it's a way to make sure we're all having a consistent approach to those students that we're targeting.

Even in a larger school, the value of gathering into a CoP with teachers who teach the same class of students can be beneficial, allowing students to experience a consistent array of strategies across most of their subjects. It is also advantageous for an ECST to be able to hear how more experienced teachers handle the behaviour or learning problems of particular students, reflective again of the tacit learning that these more experienced teachers possess.

Cycle 2: Potential Value

Potential Value in terms of having access to resources and feeling a greater sense of trust within a community came for P31 in terms of the smaller group of Humanities teachers that she found herself in. She felt that she could go to these teachers, share her ideas with them and get feedback – they, in fact, became her prime source of ideas:

> I find it good then to go to other teachers at school and run that idea by them, and they'll often say I've done that before and I did this as well, and it worked really well in the classroom. So, I guess at this stage, most of my ideas are either from there or just speaking with other teachers.

Similarly, Potential Value for P48 arose out of being part of a small group of teachers who taught the Victorian Certificate of Applied Learning (VCAL) at the same school. It was a cross-curricular group and they shared many resources and strategies. As she reflected, "Obviously, leadership is quite supportive but you feel it more within other members of the teaching

staff. . .Yes, the other VCAL teachers for sure." From a different perspective, P15 (School 6) was more generally aware of the ready accessibility of other staff members for resources. He was teaching in four different subject areas so this accessibility was crucial. As he reflected, "More generally, because it's a smaller staff, I think they are supportive." Finally, P47 found Potential Value in being able to set "common goals across our subjects" through meeting with other teachers in his CoP. This appeared to have clear benefits for the students being taught by these teachers, as well as allowing teachers to feel a measure of security in knowing that the strategies they were using had been well thought through and were the most appropriate to be using with these particular students.

Cycle 3: Applied Value

By the time of his second interview, P15 showed indications that he was beginning to feel a stronger sense of self-efficacy and professional identity. He had become more immersed in the small community of his school (School 6) and was feeling pleased with himself for having completed all the requirements to achieve his full State registration. This is reflective of the fact that he had an ongoing position which allowed him the time and opportunity to complete these extensive requirements, unlike the casual relief teachers in Chapter 4. He was very appreciative of this community which he described as "a unique environment and it is inherently supportive because of the closeness that you develop in other people." It was evident that he felt considerably more comfortable in the classroom as he reflected, "I'm feeling pretty good and pretty relaxed now." When asked if he still had a mentor, he replied that, instead, he now was the mentor for a newer teacher who had come to the school. Whilst becoming a mentor so soon in an ECSTs career is not necessarily the norm in many schools, endorsing an ECST as a mentor indicates the trust that the school put in P15, as did City School with P1. For P15, it was certainly an example of his growing self-efficacy and professional identity and status in the school. Since the previous interview, he had become involved in a coaching partnership. Whilst this was fairly low key and involved only irregular meetings, it had encouraged him to set goals, one of which was to better

structure his lessons with tighter planning. This had flowed into his classroom practice and strengthened his self-efficacy. Extra-curricular involvements, such as helping to run the school play, appeared to be influential in building his identity and his agency in this small community. This suggests that a good strategy for helping ECSTs to feel more connected to their school community is to encourage them to get involved in extra-curricular activities such as sport or drama, as long as this does not become excessive.

From a different perspective, Applied Value came for P47 (School 8) as he implemented the common strategies that had been developed by his CoP. A growing sense of self-efficacy was evident, as he reflected, “It's a really good way to focus on the students and make sure that we've got a consistent focus across all of our classes to help those students.”

Cycle 4: Realised Value

Overall, the advantages of a small school community as a Community of Practice emerged clearly. ECSTs in these schools felt very well supported, potentially more so than those in larger school communities. They also appeared to have earlier opportunities for leadership which appeared to fast-track their self-efficacy and professional identity. This is much harder to achieve in a larger school where an ECST might need to wait at least four or five years before being offered anything of this kind.

TeachMeet and External Networks

A number of teachers (14%) in this study were involved in TeachMeet gatherings. A further 17% were involved in other online networks, such as Teach Connect, Teach/Meet/Play and Aussie Ed. These gatherings were conducted outside of school hours and were independent of schools, except for one TeachMeet group that operated within a school (School 5). They operated a little differently from the school CoPs so far examined, in that an ECST might only attend a TeachMeet or tune into one of the other online communities at irregular intervals. Wenger (2009) speaks of networks as transitory situations, requiring less ongoing commitment than more conventional CoPs. The learning that can occur in such spaces, however, is

no less rigorous, according to Wenger (2009), than other forms of CoPs. In fact, he suggests, these are places of "genuine encounters among learners where they engage their experience of practice" (p. 2). Further, Giles (2017) argues that we need to re-think professional learning for teachers and points to the value and growing popularity of "online collaboration, Twitter, TeachMeets, a shift towards un-conferences" which "suggest that educators want more control over, not just what they learn, but how they learn" (para. 3).

TeachMeet gatherings were underpinned by a strong social network on Facebook and Twitter that helped to connect participants between gatherings. Twitter interactions and chats linked with particular hashtags "provide opportunities for teachers to interact with a variety of educators and other stake-holders in ways that are sometimes rare in schools" (Carpenter & Kruter, 2014, p. 12). In terms of professional learning, the opportunities that TeachMeet offered for ECSTs were many. In the Out-of-School gatherings, participants had the chance to broaden their horizons by meeting members from other schools and across all sectors, listen to innovative ideas presented by passionate teachers and, if they wished to, have an arena for presenting their own ideas to a diverse audience. Being able to listen to inspiring teachers and share their own ideas by being a presenter were also evident in the school TeachMeet gathering. These are opportunities that can potentially enhance teacher self-efficacy, professional identity and social connection in a way that other school-based communities may not necessarily be able to provide. In addition, for some casual relief and short-term contract ECSTs, TeachMeets or similar outside-of-school hours' forms of professional learning may well be the only type of live professional learning they can access. For other ECSTs, external TeachMeets might not necessarily be a replacement for school-based communities but an adjunct to them, helping to inspire and support teachers and create connections between schools. This is what could be termed a Landscape of Practice where a teacher's identity is forged in moving between different environments which can ideally "complement and enhance" each other (Wenger-Trayner et al., 2014, p. 6). These teachers, in

fact, become brokers, bringing new ideas back to their school community and "using multi-membership as a bridge across practices" (Wenger, 2010, p. 185). Being a broker between two CoPs or networks could have the potential to enhance an ECSTs professional identity possibly in a more dramatic way than might be possible just in a school community. This will be seen in some of the examples that follow. The demographic details of TeachMeet participants can be seen in Table 6.3.

Table 6.3.

Demographic details for TeachMeet participants (*n* = 7)

Participant	School	State	Sector	Age Group	Subject area
P12	9	Vic	State	26–30	English/ Humanities
P13	10	WA	Independent	31–35	English
P15	11	Vic	Catholic	26–30	History/ Maths
P28	14	WA	State	31–35	Maths
P29	15	NZ[51]	Catholic	26–30	RE
P47	8	WA	State	26–30	Science
P52	17	NSW	Catholic	<=25	Humanities

(Note. Age and years at the time of Round 1 interviews.)

Cycle 1: Immediate Value

Participants such as P13 (School 10), drew Immediate Value from hearing six to eight teachers presenting ideas and strategies at each TeachMeet gathering she attended. She described herself as a "magpie teacher", always on the lookout for new resources, which TeachMeet helped to provide. As she reflected, "I hear about something and I pick it up and I try it and see whether it works." The value of these ideas is that they have been tested in real classrooms by other teachers (Loughlan, 2012). Further, the audience has the chance to interact with the presenter afterwards over

[51] P29 was not formally part of the Australian ECSTs who participated in this study. However, he accessed the questionnaire through Twitter and was keen to participate. His comments are not necessarily representative of the whole of New Zealand, but give one perspective of how TeachMeet operates in that country.

afternoon tea to clarify and discuss any ideas in a way that might not be possible in a conference setting. This was, in fact, the best part for P13. Social interaction of participants is a key aspect of TeachMeets and is facilitated by such practical matters as providing refreshments and ensuring all participants wear nametags which include their Twitter handle, allowing for new connections to be sustained through ongoing connections in social media. The relaxed and friendly atmosphere helps teachers to make new social connections and build new relationships across the sectors (SVA Consulting, 2014).[52] This was similar for P29, who felt he gained most from the interactions after presentations were finished when they all went to have a drink together. He found it valuable making new friends on Twitter through this social interaction with whom he could continue to engage with in ensuing weeks:

> It's a great idea and then you go and use it and then if it was a really good idea and worked, you'd want to find out more, so you'd say to this person, hey can I talk to you more about what you're doing?

TeachMeets operate a little differently in different states. The format of the TeachMeet gatherings in Western Australia, for example, was a little different for P28 (School 14), in that several different presentations were offered simultaneously in different rooms, with participants choosing which interested them most. He enjoyed selecting the one that best met his needs. In addition, one anonymous questionnaire participant who had been to “five or more” TeachMeet gatherings, also chose “strongly agree” for all aspects of Question 11 in evaluating why they participated, which included developing a stronger social network on Twitter or other social media, being inspired by innovative teachers and learning new skills to use in their classes.

[52] SVA Consulting was commissioned to review the operation of TeachMeet Australia in 2014 and make recommendations for its future development.

In the case of P52 (School 17), being new to his NSW school which ran TeachMeet style gatherings for any teachers who chose to attend, there was great value in hearing from other teachers:

> And you know, as a new teacher, I've learnt quite a lot off the other teacher I've been teaching with. He's just been really fantastic. He's the other TAS[53] teacher for Year 8. And I've just learnt a lot of techniques, a lot of different methods which I can use and definitely take with me.

There would appear to be great practical value for ECSTs to gain new ideas and strategies for the classroom through TeachMeet and, in this last case, specifically related to a TeachMeet in their own school.

Cycle 2: Potential Value

Potential Value, in terms of experiencing a sense of trust with the other participants, was experienced by casual relief teacher P13 at the TeachMeet gatherings she attended. Similar to her experiences with Facebook, she found a degree of anonymity worked for her in this environment:

> You're not acting as a representative of the school; you're acting as a representative of yourself and so there's the ability to be vulnerable and ask for help and feel as though your workplace and your practice is being questioned and you're being rung through the wringer as much, if that makes sense.

The fact that most TeachMeets are held outside of school hours, either after school or at weekends, assisted ECSTs such as P13 to attend independently of their school's approval and in a non-judgemental environment. She also found that she could pick up more professional development hours, given the limited opportunities she had as a casual relief teacher to obtain these at school. This again is a prominent feature of TeachMeet, in providing "ongoing and relevant professional development"

[53] TAS stands for Technologically Applied Studies in NSW.

and reducing isolation in a “specialized /segmented system” (SVA Consulting, 2014).

From a different perspective, Potential Value came for P47 in being able to “refine my teaching and learn how other teachers apply different learning strategies.” Similarly, P52 found that “there was a lot of projection of ideas, and a lot of intake of ideas and it’s really a lot of experimentation too. And it really facilitates our learning process, especially for a new teacher such as myself.”

Overall, there appeared to be great value in hearing how ideas are implemented in different schools. As SVA Consulting (2014) found, participants are able “to build stronger professional networks” and “learn other perspectives and multi-disciplinary approaches.” Many schools can be quite insular in terms of teachers only ever interacting professionally with their school colleagues. The fact that teachers can meet on a regular to semi-regular basis with teachers from a range of other schools at TeachMeets would appear to be a very broadening and enriching experience for them.

Cycle 3: Applied Value

Applied Value was evident when participants were able to take ideas they had gained at a TeachMeet and implement them in their classrooms. This was the case with P28 who went to TeachMeets in WA where several different presentations were held consecutively in different classrooms of a school. Participants moved from one short presentation to the next. As P28 reflected, “And there's lots of ideas. And even just when you're hearing a quote or something, you sometimes think, well that's an interesting thought that you can bring back.” He was able to use these ideas in his classes as well as sharing them with his CoP at school. This was also the case with P47 who found that the ideas he learnt about particular types of graphic organisers at a TeachMeet related well to the focus in his school’s CoP:

> Because there was a couple of us from our community that were present at these meetings, we gave everybody a rundown of what took place and some ideas. So, when we had our focus on graphic organisers two weeks ago, we used a lot of that to

> teach others in our community about them—we then passed that knowledge on about what are the different types of graphic organisers.

Similar to the ECSTs in the previous section, these ECSTs were operating in a Landscape of Practice in belonging to two different communities and are brokers, helping to connect the two communities and allowing one to enrich the other (Wenger-Trayner et al., 2014). As Wenger (1998) suggests, brokerage is not necessarily easy in that the broker needs to be skillful in translating what they have experienced in one CoP into another quite different CoP. However, it is an important role creating "a participative connection" and allowing different practices to be linked (p. 109). These ECSTs show evidence of emerging professional identity in taking on a leadership role in the school CoP. P48 was aware of this and reflected on how it was good to be treated "exactly the same as every other staff member." If fact, he felt ambivalent that the leadership he was showing started to make other teachers forget that he was a graduate and not a fully registered teacher.

Cycle 4: Realised Value

Realised Value in the sense of achieving success beyond the school environment occurred for P28 as he took the risk of presenting his ideas on a number of different occasions at his local TeachMeet. At one gathering, he presented ICT ideas; at another, ideas about how to teach algebra at a special Maths TeachMeet. When asked if this had impacted on his professional identity, P28 replied that it definitely had. He went on to say that, on occasion, he had had opportunities to present very briefly at school on various topics, but not in such a formal way and to such a diverse audience as his TeachMeet presentation offered him. As the SVA evaluators noted, giving teachers the opportunity to showcase their ideas in a safe, non-judgemental environment, allows educators to be "empowered in their roles" and have the impetus to "remain in the profession." They also suggest that there are few opportunities available to ECSTs to engage in "peer-to peer learning and to gather feedback on ideas, research and practice" in the

school environments. There appears to be a great deal of equality in TeachMeet in the sense that a graduate teacher has as much opportunity to present their ideas as a more experienced teacher, each receiving support and encouragement to do so.

P29 (from New Zealand) also enjoyed the opportunity to present his ideas on a number of occasions at a TeachMeet. What he found most valuable was the discussion that arose after his presentation, when other members came up and asked him questions or shared their own experiences related to his presentation. He reflected on this in relation to a presentation he gave on Religious Education and how it could be integrated with other subject areas. When asked if these experiences had assisted the development of his identity as a teacher, he replied:

> Yes, I think they were because New Zealand is quite a secular nation, but people were quite respectful in terms of them seeing the value in it—just in terms of, you know we're a very multi-cultural country and it would be like "Oh, you know, I've got a Muslim student in my class. Sometimes they act strange at certain periods of the year or sometimes they complete certain actions" and, you know, I would be there to try to explain why they might be doing that.

The data suggest that these are very broadening experiences for ECSTs, allowing them to meet with teachers from different schools and sectors and hear a more diverse range of ideas than they might hear in any one particular school.

Further Realised Value arose for P29 in terms of finding a new strategic direction for himself. His involvement in TeachMeet and other leadership initiatives he took up at his school led to him being selected for a coveted position in the Catholic Education Office of his city. His experience in presenting to different audiences went on to assist him when he became responsible for working with teachers in seven different schools.

Overall, TeachMeets would appear to have a distinctive role to play in the landscape of education as it currently stands. Loughlan (2012) sees this role as giving teachers control of their own professional learning without the

significant price tag of more formal conferences and seminars: "Teach Meet is professional learning *for* teachers, *by* teachers in convivial surroundings with colleagues that are making a difference in students' lives" (Loughlan, 2012, para. 8). The fact that ECSTs also have the opportunity to potentially build their professional identity through presenting to the group and to act as brokers to their own school in bringing back ideas that they have gleaned from the gatherings makes TeachMeet an excellent network that should be promoted and encouraged by schools. TeachMeet and similar groups could possibly be seen as one of the best providers of professional experience for ECSTs who can return to their school communities as experts in particular ideas they have gleaned from the gatherings.

Subject Associations

Subject Associations are somewhat similar to TeachMeet in that teachers gather from a range of schools and sectors and support each other academically and emotionally. They are also teacher-driven, as P14 indicated: "It's definitely not top down in any way. Most members are the ones that are doing the presenting in the workshops." Similar to TeachMeet, they often have an online presence as well as face-to-face gatherings. The main difference would be that the focus of Subject Associations is generally on one particular curriculum area rather than the whole spectrum of subjects as with TeachMeet. They have also been in existence for a considerably longer time than TeachMeet. A number of participants in this study were involved in Subject Associations to greater and lesser extents. These included P14 who was involved in several different groups associated with the teaching of a Language in WA; P25 who was associated with the Language Teachers' Association in Victoria; P48 who was involved with an English Teachers' Association; P55 who was involved with an IT/Computing Association and P36 who belonged to a Drama Association. For those moderately or strongly involved, Subject Associations provided a Social Learning Space in terms of having a very clear domain—the promotion of and support for the particular subject—a convivial community and shared practice in the resources that were developed over time for the wider state system. The qualities of teacher self-efficacy, professional

identity and social connection also appeared to have ample opportunity to develop through these avenues, as will be seen in the examples that follow. Similar to TeachMeet, these networks provided a relatively safe and anonymous place for teachers to share their hopes and struggles, as well allowing the teachers to be brokers in a Landscape of Practice, bringing back new ideas to share in their school environments. The demographics of this group of teachers are presented in Table 6.4.

Table 6.4.

Demographic details for Subject Association participants (*n* = 9)

Participant	School	State	Sector	Age Group	Subject Area
P14	3	WA	Independent	26–30	Languages
P48	7	Vic	Catholic	26–30	English/ Humanities
P12	9	Vic	State	26–30	English/ Humanities
P13	10	WA	Independent	31–35	English
P15	11	Vic	Catholic	26–30	History/Maths
P25	14	Vic	State	26–30	Languages
P36	16	Vic	Catholic	<=25	Drama
P52	17	NSW	Catholic	<=25	Humanities
P55	18	QLD	Independent	>35	IT/Computing

(Note. Age and years of teaching at the time of Round 1 interviews.)

Cycle 1: Immediate Value

For a number of teachers in this study, Subject Associations provided a source of both academic and social support, helping many to reduce their sense of isolation, exemplified by P14 (School 3) in WA. Her Subject Associations were undoubtedly her primary source of support. As the only teacher of a particular language in her school, she felt isolated not only from other staff members, but from other Language teachers whom she found were her rivals, competing to get more student numbers in their own subject (Chapter 4). As she initially reflected in her questionnaire: “Most of my support comes from professional associations, who have a strong presence both online and offline.” For P55 (School 18), her main gain was with social connection. As she reflected, “So, that's [Subject Association] been really great. So now I'm just forging more networking.”

Cycle 2: Potential Value

P14 received very practical support from Subject Associations, in particular, in terms of assistance in developing her language skills. As she explained:

> For Language teaching, we need professional development not only in our pedagogical practice but also our language skills. You're got constantly be able to practice the language in order to be proficient at it.

A significant amount of P14's time was spent in both face-to-face (workshops) and online interactions with the range of local and state subject associations she was involved with. These were highly social connections for her, as well as providing her with cutting edge resources. As she reflected, "I'm constantly flicking stuff back and forth between colleagues at other schools, public and private. And I think that's where a real benefit of this is because it's not [confined to my] sector." The associations also allow teachers to moderate tasks from their senior classes, something that is not possible alone, as the sole teacher of a subject in a school, which is frequently the case in rural and remote schools.

Other teachers were not quite as involved as P14, but still gained Potential Value from different Subject Associations in the many resources they acquired through them. P25 (School 14), for example, as a Language teacher of Japanese, appreciated the opportunity to attend conferences run by her Subject Association. As she reflected, "It was good—lots of resources and lots of ideas." For P36 (School 16), the resources that Drama Victoria, the Drama Teachers' Association, offered were very appealing for her. She began attending the workshops and seminars they offered from her pre-service years. As she reflected:

> Their PD calendar is fantastic. It ranges right from specific curriculum stuff to specific VCE stuff to pedagogical stuff - all kinds of things. They have been particularly helpful. And I attended those PDs right from when I was in second year uni. So, I've been doing it for six years now.

P36's experience of connecting with a Subject Association as a pre-service teacher points to the value of ITE institutions promoting this as a desirable option for their students. Similarly, for P48 (School 7) there appeared to be great Potential Value through connecting with the Victorian Association of Teachers of English (VATE), especially as it was her first time teaching a VCE subject, English Language. As she reflected, "That's been a really supportive group. The forum that they've got on that is really, really generous—everyone is very generous with their resources and shares stuff very readily." These ECSTs appeared to be fortunate to belong to such active Subject Associations and clearly benefitted from the significant size of most groups, which allowed for a rich range of shared materials to be shared, potentially more extensively than might be accessed purely within a school situation.

Cycle 3: Applied Value

Applied Value came for participants such as P36 when she began utilising the ideas she had heard about from Drama Victoria in her classroom, in particular her Year 12 Drama class. As she was the only teacher at her school teaching this subject and in her first year out, it would have been very difficult without the support of the Drama Association. As she reflected, "It's been really, really crucial in the development of my practice." Similarly, for P14, when asked what it would have been like if she had not participated in her Subject Associations, she replied: "Oh, it would have been incredibly different." She went on to talk about how she now used a greater range of approaches in the classroom and how "the resources that I create are very different to the ones my colleagues create." This is suggestive of the developing self-efficacy P14 was experiencing in knowing that she was providing her classes with the best she could offer them.

Cycle 4: Realised Value

Realised Value was evident with P14 in the leadership opportunities that were offered to her. At the time of the interview, she had been on the committee of one of the Subject Associations for the previous four years.

She had also been chosen to represent the Association in another state as well as presenting her ideas in a number of other schools in her home city. She was also the editor of her Association's newsletter and was in the process of designing their website. Overall, it was clear that P14's professional identity was intimately connected with her Subject Associations in a way that was not so evident in any other participant in this study. This had become her major source of support in the face of a distinct lack of support in her school community. The other participants had not been involved in their Association substantially enough to have reached the stage of Realised Value.

Overall, the role of Subject Associations to support teachers, particularly those in smaller cohorts, such as Language teachers, and those in rural or remote areas has been highlighted by this data. For some teachers in WA, they helped to bridge the large distances that separated different schools. The opportunities they provide for ECSTs to develop their leadership skills by taking on different roles in the Association and presenting at workshops and conferences is something that is not necessarily offered within a school community, at least for younger teachers.

Private Facebook Groups and Personal Learning Networks

A more contemporary form of support for many ECSTs was through social media. What became evident through this study was that private Facebook groups and Personal Learning Networks (PLNs) have a significant role to play as networks, particularly for teachers in isolated or less supportive schools or for those who rotate between a variety of schools as a casual relief teacher. In particular, those who gained most benefits from a private Facebook CoP fell into three coded categories:

- *Casual relief and short-term teacher support*: These were ECSTs who had failed to obtain an on-going position in a school and were involved with short term replacement positions in a variety of secondary schools. Without access to conventional forms of support within a school, such as a staff office, a mentor and potentially a CoP, private Facebook groups helped to fill this gap.

- *Professional academic support:* These were ECSTs who sought support because they were in some way isolated, either geographically such as in a remote school, or subject-wise, as in being the only teacher with that subject (often a senior subject) in the school. These ECSTs sometimes met up at conferences where they established their group. Others had been through their ITE course together and continued to connect to support each other.
- *Situation support*: These ECSTs were in particularly unsupportive or very isolated schools and turned to Facebook or their Twitter PLN because the things they wanted to share would be detrimental for them to mention at their school.

Each of these groups will be considered in turn in light of the Cycles of Value from Wenger et al. (2011) and the key criteria of social connection, self-efficacy and professional identity. The demographic details of participants are displayed in Table 6.5.

Table 6.5.

Demographic details of Facebook and Twitter PLN participants (*n*=14)

Participant	School	State	Sector	Age Group	Subject Area
P4	2	Vic	Catholic	<=25	Humanities
P5	2	Vic	Catholic	<=25	Humanities/ Drama
P6	2	Vic	Catholic	<=25	Humanities
P7	2	Vic	Catholic	26–30	Psychology
P8	2	Vic	Catholic	<=25	Maths/Science
P12	9	Vic	State	26–30	English/ Humanities
P13	10	WA	Indep.	31–35	English
P15	11	Vic	Catholic	26–30	History/Maths
P16	12	NSW	State	26–30	Science
P17	13	NSW	State	>35	ESL
P18	14	Vic	State	<=25	Maths/Science
P46	15	Vic	Catholic	<=25	RE
P47	8	WA	State	26–30	Science
P55	17	QLD	Indep.	>35	IT

(Note. Age and years of teaching at the time of Round 1 interviews.)

Cycle 1: Immediate Value

For those teachers who were caught in the spiral of "bouncing between temporary jobs" (P8), not knowing where they were likely to be in the coming term, Facebook or a Twitter PLN provided Immediate Value in terms of being a valuable source of peer support, empowerment and social connection. Many of these teachers were not provided with a mentor, nor had the social support of having a desk in a staffroom/office, as was illustrated in Chapter 4. Often their private group was established when they were pre-service teachers as a means of sharing resources and ideas whilst on teaching rounds, as well as for purely social purposes, providing Immediate Value for them. However, the more urgent demands of having to find a teaching position quickly altered the agenda. Some examples of this were:

> So, there is a Facebook page for that, but that devolved quite quickly at the end of university into tell me how to get a job. (P15)

> Well we had a 4th year Education page in our final year. Everyone went on it to share resources or jobs they've heard of or things to keep in touch. So occasionally people post things on there but it's not a continuous form of communication but there are contacts there if I need. (P4)

Those who had to travel to new locations to find employment, especially rural and remote school ECSTs, found that a private Facebook group or a Twitter PLNs provided particular social support. Away from the proximity of family and university friends, social media enabled a point of connection and a link to positions that might not necessarily be immediately known about in their current location. An example of this was P5 who moved to a Victorian country school from Sydney. The group allowed her to hear of jobs back in Sydney in a timely manner:

> I did casual work in Sydney for about a year and a half. So, it was good having a Facebook group like that—it'd be like, this school will take casual teachers. So, you go, Ok, I'll put my resume in there.

There is evidence of collegiality and trust, key community features of a CoP, in the way these teachers looked out for each other. P16 had a similar experience in helping another friend to get a placement through alerting her on Facebook. She recalled, "And I just put a call out on one of these groups and someone answered it and she got the block and she's had some regular casual work at the school since then." For P6, who had also moved away from home to take up a casual relief position, Facebook was a network that provided a means to keep in touch about the latest jobs and "for everyone touching base about what's going on." Others, whose cohort spread more extensively, found there were opportunities to even hear about overseas positions, such as for P12 whose friends knew about "opportunities in South Korea, for instance, or Malaysia or China". This kind of mutuality was also evident with P47:

> We'd put notes up to say what we needed—we're short on relief staff at the moment. Put your name down for the relief school, for our school. And post up different opportunities and that sort of thing. Ask for help with something particular—sometimes I would say, I'm struggling for a resource. Does anybody have anything?

Casual relief teachers in Australia have to be flexible in moving between State, Catholic and Independent school sectors, each with their particular demands and ethos. For P12, Facebook provided a means of accessing this privileged information:

> Or even Independent schools—what's the go with applying to them because they have all these dot points for preferred but then you only put in a cover letter. Like what do you do to meet these dot points so you stand out. And we talk about how to go about it, without actually giving someone the work.

Facebook groups also assisted with accreditation requirements of State Education Departments who use the registration standards. Graduate teachers are required to address a set of standards before they can achieve full registration as a teacher. This is a burdensome process for ongoing early

career teachers, made even more difficult for casual relief and short-term contract teachers without a regular school from which to gather data (see Chapter 4). P49 joined a Facebook group whose members included teachers who were trying to complete the requirements, as well as some who had recently completed accreditation. At the time of this interview, there were 3,179 members from all over Australia in the group. When asked what value she gained from the group, P15 replied, “that's probably been a major support for me, just learning from what other people have done.”

Although Facebook and Twitter PLNs are not the only way casual relief teachers receive support and advice about jobs, it is certainly a significant way, whose potential is still to be fully explored in research literature. For casual relief teachers, there appeared to be a heightened level of collegiality, social connection and inter-dependence amongst their peers on Facebook, in knowing that they were all in a similar, dispiriting situation together.

Cycle 2: Potential Value

There appeared to be Potential Value for those participants who had done their pre-service training together and were able to share resources and strategies through their private Facebook group and/or their Twitter PLN. As P55 reflected, when asked what her best source of support over the past two year had been, “Absolutely social media. Social media… Twitter has just become such a great tool, in terms of, not only finding resources, but support.” For some, the cohort was often formed in the final year of their pre-service training. P8, for example, found that the like-minded cohort of his peers from his Visual Arts course were still there for him in his first year of teaching, providing him with relevant resources and, “Yes, it is good because it's your peers, I suppose, and you know where you're coming from.” Similarly, for P46, keeping regular contact—up to three times a week and more during holiday breaks—through a private Facebook group with a small group of friends from her pre-teaching cohort provided her with one of her strongest forms of support in a school where other forms of support were minimal. As she reflected, “They are definitely my go-to people.”

Others, although still connecting with their pre-service cohort, became involved with subject-based cohorts that were often linked into after annual conferences. P6, for example, found himself suddenly thrown into a Year 12 subject early in Term 1, with few resources left for him and being the only one in this country school teaching the subject. A timely professional development event led to him establishing a private Facebook group with other graduates that he met there, directly related to his subject area and which he described as an "incredible" source of support:

> So, we made our own closed Facebook group just so we can ask each other—free from judgment—saying how do we teach this subject?

P6 was able to access PowerPoint slides directly related to the area of study he was teaching in as well as being able to access sources of advice. As he began using these resources in his Year 12 class, he showed evidence of Potential Value for himself as well as a growing level of social connection with his colleagues in the Facebook group, possibly enhanced by the fact that they were all teaching a Year 12 subject with its attendant high level stakes. His developing self-efficacy was evident when asked if the group had been helpful, he replied, "That's been incredible!" Shared goals and interests would appear to have enhanced the Facebook experience for teachers such as P6.

Cycle 3: Applied Value

Applied Value was evident with P7 who found herself invited to join private subject-specific Facebook groups early in their career. A Psychology teachers' group not only gave her access to valuable resources but also allowed her to collaboratively assess practice exams with more experienced teachers, building her self-efficacy:

> A Psychology teachers group on Facebook and that's from people all over Victoria, some I've never even met before—I only got invited two years ago and I thought, what did I used to do before this? It's amazing.

Not only was P7 provided with ideas and strategies that she could use in her Year 12 classes, she also found the Facebook group to be a source of connectedness with the other teachers of the same subject, enhancing her social connection. Similarly, P18, who was part of a Teach for Australia Facebook group, relished the fact that she could work with more experienced teachers as well as her younger peers, similarly building her social connection as well as her self-efficacy. This was a very strong cohort from her graduating year, but she also linked in with teachers from previous years. As she explained, “The most important and the most useful of that whole six weeks of training was making relationships with other associates and being able to maintain them—have a network to tap into.” The Facebook group gave her access to a much wider range of resources and advice than she might necessarily find within her school community:

> So, I'm still a member of a group on Facebook called "I teach Maths" and they post—people would post questions or ideas that "Who’s got a game that can be student-run can be in the middle of the double period that somehow Maths and kids can get engaged with?" And a bunch of people will quote or "has anyone got some resources for application SACs for Maths Methods for Year 12? Stuff like that and it reaches out to this group—and it's not just your cohort.

She also found that the group was helpful for informing her about upcoming events where participants could meet face-to-face, further strengthening their online connection, collegiality and trust. P55 also found that a private Facebook group facilitated sharing with her colleagues who were reluctant to do so in face-to-face situations:

> And it just frustrates me like crazy, when I first started teaching, no-one shares. Yet if you put them in a private group, they'll share it because they know you well enough, even if it's just on line, that you're not going to go, oh, I got this from this school. So, we actually share actual full-on assessment pieces

> and unit plans and that type of thing. And that's just really good.

Those teachers who found themselves in less supportive school environments found that the anonymity of Facebook was its most appealing feature. P13's situation clearly illustrated this. Although her school had some groups she could connect with, the Facebook group gave her a level of privacy that she preferred, particularly when it came to sharing her struggles:

> On the social media groups, on Twitter, on Facebook, where I feel less judged asking for help. And I also feel like I can ask more anonymously, even though you can never ever be anonymous on a social media website. But if I ask those questions at school, that's a completely different ball game. You can't be seen to be vulnerable at school or be struggling at school because that then brings into question your professional capabilities. So, that's why I actually prefer the social media groups.

The level of trust and social connection that P13 experienced in this private Facebook group appeared to be very significant. At a time when many teachers are on contracts and are concerned about maintaining an image of competency in their school, the role of a non-judgmental and anonymous platform appears to have its place. Similarly, P14 being the only Language teacher in her school felt that she could find a supportive community online, rather than in her Language faculty that had a competitive edge to it. Whilst she primarily connected with Subject Associations face-to-face, these had their corresponding Facebook outlets which seemed to help her to overcome her sense of isolation and allowed her to become part of a "virtual staffroom":

> It's definitely the networking—reduction of isolation. You end up a virtual staffroom, that's what I like to think of it, because normally if you were in a department, flicking stuff back and forth, asking each other ideas, sharing curriculum, all that sort

> of stuff, within your staff room, but when you're alone you don't have that. We've created that.

Cycle 4: Realised Value

Realised Value arose for P55 through her ongoing involvement in her private Facebook groups and Twitter PLN, the members of which she described as educators who “put more time into just the whole idea of thinking and researching, and they are also very passionate.” She found herself networking with a wide audience of innovative educators and effectively marketing herself: “I have received offers of employment from some connections.” This, in turn, gave her the self-efficacy to put herself forward and be accepted to present at major educational conferences and to receive invitations to jointly write articles with academics. She described the best value of social media for her as connecting with educators and industry leaders on social media which also helps her stay current in ICT knowledge and understanding.

Overall, these examples illustrate the more sensitive and supportive role Facebook appears to play in the lives of early career secondary teachers. It potentially helps to reduce their sense of isolation and builds their social connection and self-efficacy, ensuring they have a non-judgmental and relatively anonymous arena for sharing their struggles and concerns. The fact that Facebook is freely accessible and available to all teachers, particularly casual relief teachers who might not have any other professional learning outlets, is significant. It is also a way to connect teachers in rural or remote schools, allowing teachers to overcome the tyranny of distance (Trust, Krutka & Carpenter, 2016). Despite these advantages, it would appear that many schools fail to see Facebook as anything other than a distraction or a source of potential problems, and it is not unusual to find it blocked to teachers during the school day. Further, not all ECSTs are convinced of the value of such connections. Involvement in online CoPs takes time, and as P55 lamented, “All teachers are extremely enthusiastic at first, but it always surprises me that not many teachers continue after the introduction.”

Summary

This chapter has considered the reasons why ECSTs participated in various Social Learning Spaces, including the strongest reasons of being inspired by innovative teachers and learning new skills. ECSTs also participated to gain more confidence in their teaching practice and to make stronger social connections. The chapter then proceeded to consider findings from participants in five different Social Learning Spaces, including triads/small group CoPs, small schools CoPs, TeachMeet networks, Subject Associations and private Facebook Groups/Twitter PLNs. Within each type of Social Learning Space there was evidence that teachers appeared to have developed their self-efficacy and an emerging sense of professional identity through participation in these gatherings. They were also places where social connection seemed to be enhanced by engaging with a range of different teachers whether they be from different faculties, different schools or different sectors. Some ECSTs also appeared to take on the role of being brokers in Landscapes of Practice, bringing back to their school ideas and strategies that they had heard about at outside CoPs, including TeachMeet, Subject Associations and through their private Facebook group or Twitter PLN. This suggests that there could be accelerated growth in social connection, professional identity and self-efficacy through this process. Although not all ECSTs might have the time to engage in outside CoPs, for those who do, they can be a great source of stimulation and bring fresh idea to internal CoPs. In fact, the health of internal CoPs could well depend on the cross-fertilisation that input from these outside sources bring. These ideas will be explored further in the concluding chapters that now follow.

Chapter 7 Discussion

> *You have plenty of courage, I am sure," answered Oz. "All you need is confidence in yourself. There is no living thing that is not afraid when it faces danger. The true courage is in facing danger when you are afraid, and that kind of courage you have in plenty."* (Baum, 2015, p. 91)

The End of the Yellow Brick Road

The literature, personal stories and statistics that have been presented thus far provide evidence to address the key question asked in this study: *Can Communities of Practice add value to the professional learning of early career secondary teachers in Australia?* There is also evidence to address the three sub-questions that were proposed in Chapter 1:

- What value can involvement in a school Community of Practice add to the professional learning experiences of early career secondary school teachers in Australia in terms of their self-efficacy, professional identity and social connection?
- What value can involvement in external Social Learning Spaces such as TeachMeet, Subject Associations and social media sites, such as private Facebook groups and Twitter Personal Learning networks, add to the professional learning experiences of early career secondary school teachers in Australia in terms of their self-efficacy, professional identity and social connection?
- What value can joint involvement in a school Community of Practice and one or more external Social Learning Spaces add to the professional learning experiences of early career secondary school teachers in Australia in terms of their self-efficacy, professional identity and social connection?

How these questions were addressed in this research is explained in the following key findings.

Finding 1: The Value of Communities of Practice as Part of an Overall Culture of Growth in a School.

One of the most significant findings to emerge from this study was that early career secondary teachers who were located in schools where there was a culture of growth (Fullan & Quinn, 2016) were in an arguably superior working position compared to those who were not so supported. A culture of growth is evident in schools where there is high human, social and decisional capital within their staff, who work collaboratively through Communities of Practice to improve student outcomes (Garmston & Wellman, 2016; Fullan & Quinn, 2016; Hargreaves and Fullan 2013). Moreover, within these school communities ECSTs have the opportunity to develop, over time, sustained self-efficacy, a strong professional identity and deeper social connections. As evidenced in many of the schools in Chapters 5 and 6, these ECSTs felt fully supported in their school environments, experiencing regular connection with their mentors and peers and with more experienced teacher whom they trusted, through both the staffroom/offices and the Communities of Practice they were involved in.
As was highlighted in Chapter 2:

> The key difference between those who have good beginnings and those who have painful ones, between those who feel they are getting better and those who are not, is the quality of the school's culture and its level of support. (Hargreaves & Fullan, 2013, p. 69)

This study has identified a range of schools in Australia as described in Chapters 5 and, to some extent, Chapter 6, that have taken specific steps to build a culture of growth in their schools and there is much to learn from them. They are schools with a vision and strong leadership, that appreciate the needs of all of their teachers, but especially their early career secondary teachers and have made a philosophical and financial investment to support them. This has included setting up various types of Communities of Practice to facilitate teacher collaboration, such as triads as illustrated at Rural College or somewhat larger ones such as those at City and Remote SHS. In

such schools, ECSTs had a range of experienced teachers from whom to seek advice and with whom to share their teaching struggles and insights on a regular basis. It was important for them to hear that all teachers struggle with particular issues and to have the opportunity to work with them collaboratively to explore strategies that might work. As was illustrated by P39 from Remote SHS (see Chapter 5), “You don't feel judged or if you're not successful with something. I think it's super supportive.” As Figure 2.2 illustrated in Chapter 2, working in such contexts creates learning partnerships (Wenger, 2011). This process rests on the assumption that CoPs can meet regularly, though not necessarily for extended lengths of time, as was demonstrated at Remote SHS with their early morning meetings. The value of such learning partnerships is supported by a wealth of previous research such as that of Bouchamma and Michaud (2011), Galosy and Gillespie (2013) and Ingvarson (2015) that show that ECSTs thrive in schools where collaborative teacher interaction is deeply invested in the daily life of the school, with Communities of Practice meeting regularly. Most importantly, these ECSTs appeared to be less inclined to consider leaving the profession than their peers in schools that did not have such a culture of growth, such as those in the challenging or irregular situations described in Chapter 4. Their experience can be likened to what Dorothy and her companions found at the end of the Yellow Brick Road—the courage and the confidence to tackle the challenges that inevitably arise in the classroom and broader school environment, knowing that they have the backing of their peers and more experienced teachers in their Community of Practice, their companions on the journey, to assist them along the way, without judgement or censure.

Part of the overall culture of growth in the schools in this study was also the way these schools specifically provided for their beginning teachers. This included ensuring the two main features of an appropriate beginning for graduate teachers, namely a sustained induction and an intentionally allocated mentor, were given priority. As DeAngelis and Presley (2011) and AITSL (2017b) maintain, these are the single most important supports for a beginning teacher. In most of these schools,

induction was not just a one-off event at the beginning of the year, but rather consisted of regular gatherings over several terms or even a year. This is consistent with the recommendations of AITSL (2017b) that induction needs to be targeted professional learning focused on four key areas: "professional practices, professional identity, teacher wellbeing and orientation" (p. 13). These aims cannot be achieved if induction is just a one or two-day event at the start of a year. Rural College was moving towards achieving these goals in having its beginning teachers meeting with L3 and their mentors over most of the year. Measures such as these come with an attendant financial and organisational cost to the school, but were considered as priorities by these schools.

Schools with a culture of growth were also intentional in their allocation of a mentor to each of their beginning teachers who was ideally in the same faculty (DeAngelis, Wall & Che, 2013), geographically proximate and with available time to allocate to their role. As L3 from Rural College reflected, "Yes, I think that [having a mentor] is probably more important for those beginning teachers here. And that's something that we do for all our new staff, which is great." AITSL (2016a) maintains that "practice-focused mentoring by one or more expert colleagues is particularly powerful in supporting the transition from the Graduate to Proficient career stage" (p. 7). This is what happened for P1 (City School, Chapter 5) whose mentor was from within the Maths department of which she was a member. She was regularly team-teaching with her mentor as well as sharing a staffroom/office with her. In these schools where there was a culture of growth mentors were intentionally chosen, such as in giving mature-aged ECSTs comparably mature mentors. This was decidedly different to what mature-aged participant, P56 (Chapter 4), experienced in being given a mentor who was a significantly younger teacher who had been just a year ahead of her in her pre-service training or P50 (Chapter 4) who found her mentor to be "a complete and utter waste of space." Further, many of the casual relief and short-term ECSTs in this study were not allocated a mentor at all, yet as AITSL (2017b) reminds us, such a teacher is the most common way for graduates to begin their teaching career.

As well as providing mentors and induction, some schools in this study incorporated a coaching element into the CoP as part of their overall culture of growth. This involved the school collecting data from teachers' classes and providing time for teachers to reflect on it within a small CoP that included a coach. The coaching elements of P7's CoP at Rural College provided her with regular opportunities for feedback. As P7 reflected in Chapter 5, "We'd get feedback from our students and then see if maybe we had some areas of weakness or things we could improve on." This appeared to be a very effective way of helping an ECST to focus on particular aspects of their practice that needed improvement suggest, in line with the purposeful conversations within a *semantic space* advocated by Lofthouse and Hall (2014). Given the limited amount of time that schools can generally allocate for CoPs, such focussed conversation tools could be very beneficial. Further, many of these ECSTs were able to observe more experienced teachers and be observed by them or their peers in a non-judgemental way. These observational rounds advocated by AITSL's report, *Classroom Observation Strategies: Choose your Journey* (AITSL, 2017a) would appear to be one of the most important aspects of a Community of Practice, given that feedback is one of the main ways to improve teaching practice (Goss & Sonnemann, 2017; Shanks et al., 2012).

The role of the Principal was also identified as one of the major factors that determine the culture of growth in a school. They were the *champions* who provided guidance, funding and legitimacy for the collaborative activities that occurred (Wenger, 1998). Their membership of a CoP was beneficial in adding "impact and prestige" and allowing ECSTs to see that everyone can improve their practice, from the most experienced to the lesser experienced (McDonald, 2014, p. 27). The schools in this study where the Principal was actively invested in its CoPs, such as Remote SHS and Rural College (Chapter 5) showed strong professional capital. As L4 from Remote SHS reflected, "I think that's been one of the key things that led to its [the CoP's] ongoing success." This aligns with the findings of Bouchamma (2012) from their study of high performing schools in Canada, on the importance of the Principal in being involved with the supervision

and coaching of teachers, especially new teachers. It is also supported by the third domain of the ACER Professional Learning Community Framework that emphasises the importance of "leadership that fosters and supports a professional culture" (ACER, 2016, p. 3).

Schools with an overall culture of growth often also employed a leader—other than the Principal—a social artist (Wenger, 2009). These are leaders who craft new learning for teachers and bring passion and energy to their school community. More recently, Wenger-Trayner et al. (2017) on their website note that, "One thing that social artists have in common is that they use their passion and commitment to guide the process and act as exemplary learning citizens." In this study, they were represented by all the leaders mentioned, such as L4 at Remote SHS, who led her English CoP to model a school-wide writing approach that produced significant student NAPLAN gains and L5 and his Centre for Learning at P52's school who brought expertise, passion and commitment to his role, running programs that educated teachers, not just at his school, but those from many of the parts of Australia who came to learn from his school. Without a key person, a social artist, with energy and a passion for learning at the helm, it may have been difficult to develop a culture of growth within a school community. This does not necessarily need to be a financial burden for schools—often, there are very talented teachers within the school, who, with appropriate training, could take on such a role. The benefits for the entire staff and especially the ECSTs would appear to be indisputable.

This study has demonstrated that schools with an overall culture of growth that provided a sustained induction, an appropriately allocated mentor and a range of Communities of Practice allowed space for their ECSTs to develop their professional learning. These participants were almost all unanimous in their praise of the teachers in their school who had supported them, including their mentor, their induction leaders and the members of their CoP. Those participants who were interviewed several times over a 15-month period, particularly, showed evidence of developing self-efficacy, a stronger professional identity and a deeper social connection, which will now be considered. Dorothy's companions found that what they

were looking for from the Wizard of Oz was, in fact, already within themselves from the support and experiences that they had on the road. This was also the case for the ECSTs in this study, where the seeds of self-efficacy, professional identity and social connection had a chance to be nurtured and encouraged by their ongoing experiences in the classroom and the support of their CoPs.

Developing Self-Efficacy

As was outlined in Chapter 2, Bandura (1977) proposed that self-efficacy could be developed in four particular ways: through performance accomplishments, vicarious experience/feedback, verbal persuasion and emotional arousal (p. 195). Evidence of these ways was seen in a range of participants in this study:

- *Performance accomplishment*, which is based on personal mastery, was particularly evident in the three participants from the Mathematics CoP at City College. They developed specific skills in being able to differentiate the curriculum, allowing them to address the needs of low SES students. This was facilitated by the CoP providing them with locally developed materials, modelling different strategies for them and offering ongoing advice and support, including team-teaching with them too. Similarly, English teacher, P5, developed new skills in helping students to engage with reading through the CoP she formed with two librarians at Rural College. This points to the value of incorporating auxiliary staff, such as librarians, learning enhancement staff and IT specialists into CoPs, along with classroom teachers, in order to add breadth and depth to discussions. Without the support of a CoP to offer expert advice and a congenial place to share their successes and failures, these ECSTs might not have experienced such a strong sense of self-efficacy. As P1 reflected in her third interview, “And it's interesting to see where you have come from. Just the knowledge you've gained without even realising it.”

- *Vicarious experience,* which involved seeing more experienced teachers model strategies and approaches, occurred particularly for those ECSTs who worked in team-teaching situations and those who were regularly involved in various forms of observation rounds. This was seen at City College, where P1, P2 and P3 worked in a team-teaching model in their Mathematics classes. At least two out of the three had the opportunity to work with a skilled teacher, allowing them to see strategies demonstrated and providing them with feedback when they took the lead in a lesson. Similarly, P25, as a Language teacher found great value being in a team-teaching situation with two other teachers, one of whom was a native speaker. She reflected in her second interview that, "I definitely learnt much more in the team than if I was by myself." The chance to see an experienced teacher's lessons on a regular basis also occurred for P19 and P20 who made classroom observation the key focus of their triad. As P20 reflected (reported in Chapter 6), "The way he teaches is far more polished. And his time management, his resources, they're superior... Seeing him—his questioning, as well, is really helpful."
- A form of *Verbal persuasion*—which involves feedback from a more experienced colleague—occurred for those ECSTs involved in CoPs that included coaching as part of the CoP. For example, at Rural College P7 received data from her classes that was shared with her small CoP, a member of which was a trained coach. As she reflected, "I think it's in the process of doing that... I'm really starting to think, oh yes, did talk about this. Maybe I could present this information differently." Similarly, P19 and P20 also developed their self-efficacy by having their own lessons observed by the other two members of their triad on a regular basis and receiving feedback. This would appear to be a very powerful way to build self-efficacy. There is a growing movement to developing coaching programs in schools which can only have benefits for ECSTs in being able to

receive timely and supportive feedback and guidance on a regular basis.

- The final element of Bandura's (1977) schema is *emotional arousal* which relates to the resilience that a number of ECSTs in this study demonstrated in the face of difficult circumstances. Bandura (1977) suggests that if teachers can develop emotional resources to deal with threats, such as classroom behaviour issues or difficult staff or Principal relationships, then their self-efficacy can be enhanced. This was the case for P50 and P51 who were in a difficult school with many problems that gave them little support. However, at the end of the day, P51 could say, "I'm learning a great deal, I'm just working a lot really." Her mature-aged background may have assisted to enhance her self-efficacy through dealing with the problems. Similarly, P16, as a casual relief teacher, experienced many challenges but ultimately was able to say, when asked if they had built up her resilience, "Yes, definitely. I think having to swim. I can handle almost anything now." This aspect of self-efficacy is independent of being in a CoP, as was the case with P50 and P51 who had no such support. However, it could be surmised that a CoP could provide emotional support in such difficult circumstances, especially for young ECSTs who might not have the resources to otherwise deal with it. This was the case with the ECSTs referred to in Chapter 4 who, as young teachers, faced unfair and demoralising situations which they had to deal with on their own. In a number of these cases, these ECSTs had no choice but to leave their schools to find alternative positions or leave the profession altogether.

Self-efficacy is a very desirable quality to foster in early career secondary teachers and it is recommended that every opportunity is given to these teachers to develop it. This includes giving them opportunities to observe more experienced teachers, to share their success and failures in the safe environment of a CoP and to take on challenges, knowing that they have the necessary support to do so.

Developing Professional Identity

As was reflected in Tables 4.7–4.9 in Chapter 4, professional identity scored below self-efficacy and social connection across each of categories of sector, age-group and years of teaching. This may be because more specific opportunities are needed to develop this quality. As the findings of Beijaard et al. (2004) and Frost (2006) demonstrated in Chapter 2, one of the key ways ECSTs can develop professional identity is through their agency, in the sense of being able to chart a path for their own professional learning. Some ECSTs were clearly able to do that. For example, fellow teachers P19 and P20 were able as graduate teachers, to set up a triad with a more experienced teacher at their school which had not yet moved towards having any sort of CoPs. The agency that they demonstrated in organising this initiative reaped many benefits for them, as was seen in Chapter 6. Not only did they benefit from the feedback they received in the observation that took place in the triad, but their efforts helped to model new possibilities for the school as a whole. In the following year, these ECSTs were invited to speak to the whole school staff and reflect on the value of their experience. This was a very empowering experience for them and a boost for their self-efficacy and professional identity. Obviously, schools cannot offer every ECST such creative scope. However, allowing ECSTs to embrace new initiatives, such as taking on a school drama production (P15) or new academic study related to a particular school need (P9) would appear to be ideal ways for them to develop their professional identity. Further, Wenger (1998) maintains that the key to helping teachers develop and deepen this sense of identity is to give them opportunities to reflect on their lives and then share their experiences and feelings with their colleagues. The chance to reflect is deeply embedded in the structure of a CoP and also in the opportunities that ECSTs have to observe other more experienced teachers and be observed by them. In the busy environments of most secondary schools, these times of reflection needed to be given priority by intentionally inserting them into the program of all teachers ideally, but especially those of ECSTs. As was noted in Chapter 4, Scottish beginning teachers have a 20% reduction in teaching time in their first year to allow

for their professional learning (GTC, 2017). This is something Australian secondary schools should seriously consider, if they are not doing so already.

Developing Social Connection

The Social Connection that comes from being part of a Community of Practice emerged clearly in this study. As was illustrated in Chapter 5, the beginning ECSTs at City School felt immediately welcomed in their Mathematics CoP. As P2 reflected, "With the Maths, it's been nothing but positive," whilst P1 concluded "So we work closely together." This reflects the findings of Timperley (2014) about the importance of relationships to sustain long term learning and the two elements advocated by Bower, van Kraayenoord and Carroll (2015) around which social connection should revolve, "a relational component that supposes a connection or bond to others and an autonomy component that refers to how individuals feel when they are valued within a relationship" (p. 102). Similarly, P39 at Remote SHS in Chapter 5 felt that her English CoP was a great group to belong to: "It was really good to be part of it, like a community of teachers, I suppose." Giles (2017) also emphasises the importance of social connection when she states, "Learning, both student and adult, is increasingly open, socially connected and, in most cases, many have not seen it for the true revolution that it represents" (para. 14). Finally, Community is seen as the second of the three integral components that constitutes a Community of Practice as was explained in Chapter 2. As Wenger (1998) stressed, "Whatever it takes to make mutual engagement possible is an essential component of any practice" (p. 74). For some schools, this involved having refreshments available during a CoP gathering. For others, such as Remote SHS, it involved creating spaces in the timetable so that meeting together was not an extra burden for teachers but part of the normal activities of a day. All these measures helped to create social connection because the ECSTs involved could relax and feel they were among friends. As P15 found when he began in a small school CoP (Chapter 6), "I could just strike up a

conversation anyway with anyone and that would invariably lead to 'How are you going?'"

The second major finding is related to the value of participating in external networks, such as TeachMeet and online networks such as private Facebook groups and Twitter Personal Learning Networks.

Finding 2: The Value of External Social Learning Spaces and through Social Media for Supporting Casual, Rural and Remote ECSTs

This study uncovered the value of external Social Learning Spaces, including social networks for two particular groups of ECSTs. The first group consisted of casual relief teachers. As was illustrated in Chapter 4, these ECSTs were generally precluded from any kind of induction and were unlikely to be given a mentor. They were also often not given any priority in terms of attending professional learning events, as P13 so eloquently indicated (in Chapter 4): "And so to be released to go to Professional Development was seen to be in the too hard basket, essentially, because nothing was classified as necessary to my practice." Another was a significant group of teachers in this study who worked in rural or remote schools throughout Australia. These teachers often found that they were the only teacher for a senior subject or were teaching a language with a small cohort in the State. The value of Social Learning Spaces for each group will be considered in turn.

Casual Relief Teachers

This study found that casual relief teachers often lacked what other teachers might take for granted, such as a desk, a shared staffroom/office and a regular group to mix with in a central staffroom. It was not uncommon for them to be teaching Out-of-Field subjects and they had limited opportunities for professional learning. As P17 summed it up in Chapter 4, "Working casually there was no support what so ever for casual teachers." These ECSTs used private Facebook groups or Twitter PLNs in very pragmatic ways. Facebook and Twitter are not generally considered by schools as conventional source of support or professional learning for

teachers, and, in fact, are often blocked in schools. However, private Facebook groups and Twitter PLNs emerged in this study as an indispensable aid for ECSTs, particularly for those who were casual relief teachers. In many ways, they provided a *virtual staffroom* for these teachers, as P31 suggested in Chapter 6, providing many of the advantages a conventional staffroom/office would bring such as friendship, advice and both academic and emotional support. This collegiality was evident in the questionnaire when Anonymous 11 noted, “Online communities are great for asking questions in which you can get a variety of feedback. It also allows me to feel that others have similar experiences.”

For many casual relief teachers, the private Facebook group was used to access job information and details about the particular requirements of the various sectors they traversed. As P12 reflected (reported in Chapter 4), “Or even Independent schools—what's the go with applying to them?” Different sectors can be radically different environments and having to move between them is demanding work, so having informative peers to refer to in a private Facebook group would appear to be very helpful for these ECSTs. Further, usually not having mentors or staffroom/office colleagues to turn to, it was their peers on Facebook or Twitter that these ECSTs turned to for assistance when they found themselves having to teach subjects or grade levels that they had not taught before or when they confronted behaviour issues that they did not know how to deal with. The shared wisdom of these groups and the timely and compassionate way in which responses were given to colleagues in need was a surprising outcome from this data. These ECSTs were indeed committed to each other. The size of the group did not appear to hamper the depth of sharing and support that was evident in smaller groups. Some smaller groups had formed at the end of their pre-service courses and so participants knew each other. Others had been set up by particular individuals, such as *Survive Casual Teaching* which hosted over 10,000 members. The larger groups had the benefit of having more ideas forthcoming to any questions that were asked. However, the smaller groups were more intimate. It would appear that private Facebook groups and

Twitter PLNs are helping to bridge a gap that currently exists in schools in terms of how they support casual relief teachers.

TeachMeet and Subject Associations were also essentially a free form of professional learning for casual relief ECSTs. As gatherings generally occur outside of school hours (after school or on the weekend), casual relief and short-term contract teachers did not have to worry about missing out on teaching offers. These teachers can often feel very vulnerable in a school environment as was seen in Chapter 4. If they express any concerns about classroom issues, they know they might not be asked back again to the school. However, P13, for example, felt very free in the TeachMeet environment in that she was able to share and ask questions more easily than she could in a school community: “You’re not acting as a representative of the school; you’re acting as a representative of yourself.” In addition, it can be a lonely experience being a casual relief or short-term contract teacher, often not spending enough time in any one school to build up connections. For these ECSTs, TeachMeet was a friendly and open environment and, as was noted in Chapter 6, providing “ongoing and relevant professional development” to reduce isolation in a “specialized/segmented system” (SVA Consulting, 2014). The fact that these teachers can follow up on the connections they have made at a TeachMeet gathering through associated social media networks such as Twitter is a further asset in terms of social connection.

Rural and Remote Teachers

Those ECSTs who taught in rural or remote schools found support through private Facebook groups particularly if they were teaching specialized senior subjects and certain languages. These ECSTs found in private Facebook groups a means of forming a professional academic support group. This was the case, for example, with P6 who found colleagues at a specialised subject conference in a regional town and was able to form a private Facebook group with them to share strategies and assessment ideas for teaching his Year 12 Economics class. It is hard to imagine how he would have elsewise coped as a graduate teacher, given that

he was the only teacher in the school teaching the subject. A number of other participants were in similar situations, trying to cope with teaching a range of subjects for the first time with limited support from their school community. It was significant in all these cases that the Facebook groups were private. These ECSTs did not want to put their ideas and concerns out on the open web. The privacy of the Facebook group allowed a more open sharing than perhaps would have happened in any other way, as P55 indicated, “When I first started teaching, no-one shared. Yet if you put them in a private group, they’ll share.” Further, for those ECSTs living in remote areas this study revealed that the cost and the number of days off school required to attend professional learning events was prohibitive. Finding the right private Facebook group for them meant that they could access the ideas and teaching strategies that they needed, from the comfort of their own homes. As P24 summated, “And so, if you felt that there was something you didn't know what to do with, you could go to them, the people in your Facebook group”.

Finding 3: The Value of Joint Involvement

One of the most unexpected and, in some ways, most significant findings to emerge from this study was the extent to which involvement in more than one Social Learning Space across a Landscape of Practice added enhanced value to an ECST’s professional learning. These were the ECSTs who were able to truly be the *brokers* that Wenger (2009) and Wenger-Trayner et al. (2017b) refer to, “carry[ing] learning from one place to another” (Wenger, 2009, p. 7; Wenger-Trayner, et al., 2017b). These ECSTs were regularly involved in an external Social Learning Space such as TeachMeet, a Subject Association, a private Facebook group or a Twitter PLN such as AussieEd, as well as a functioning CoP at their own school. These external involvements were all very broadening and enabling experiences for these ECSTS, leaving them feeling energised and inspired in ways that might not necessarily have been possible at their own school. They were able to connect with a range of very passionate teachers from other schools from across the sectors and beyond, listen to innovative ideas being shared and, when they felt ready, to present their own ideas to the

group. As P29 reflected, “You'd pick up something but probably what was more, what I found was more helpful was talking to them afterwards.”

There were two types of ECSTs who were able to fast-track their professional learning. Each type was based in a school Community of Practice, but extended their learning in particular ways. The first group were those who took the opportunity to engage in Social Learning Spaces outside of the immediate school environment, such as TeachMeet, Subject Associations and, to some extent, private Facebook groups or Twitter Personal Learning Networks, as well as belonging to a Community of Practice at their own school. These ECSTs were able to take the learning and harbour the enthusiasm they had gained from these external groups and share it at their school. An example of this was seen in Chapter 6 with P47 and his friends who were able to take the new ideas they had heard about graphic organisers at a TeachMeet and share them with their CoP at school. As graduate teachers, they found themselves in the limelight, facilitating learning for the other, more experienced teachers in their school CoP. P47 spoke about having a “valued input” and that “it can be forgotten that you are a graduate and not a fully registered teacher.” These are powerful experiences for an ECST, helping to build their professional identity and status within a school community in a way that might not necessarily occur were they only in the one community. There was also P14 whose involvement in a Language Teachers Subject Association led to her taking on leadership roles within the Association and presenting her ideas to a range of other schools in her home city. This is something that would have been unlikely to have occurred if P14 had confined herself to the somewhat limiting environment of her own school. Similarly, in this same section, there is an example of P29 who found that the ideas he picked up at TeachMeet or on Twitter he could share with other teachers at his school: “Come and watch me use X in my English lesson tomorrow and then you can try it.” P29 made such an impact in his school that he was invited to take on a co-ordinating role in the diocese that his school was in. This is an amazing achievement for a young teacher, in large part due to the strong

self-efficacy and professional identity he developed through his involvement in TeachMeet and its associated social media.

The second group were those extended their learning by sharing it with another faculty within the same school that was not operating as a CoP. They too were able to take on leadership roles and build their self-efficacy and professional identity by having to think through the best ways to adapt what they had learnt and apply it in a new context, without as many support structures around them. They were then able to show their peers and experienced teachers new strategies to improve teaching for all students of different abilities. This allowed them to become part of a learning loop where the knowledge a person has gained allows them to become experts in another situation (Wenger-Trayner et al., 2017b). As Wenger-Trayner et al. (2014) suggest in their blog:

> Networking, convening new social learning spaces, brokering across boundaries, acting as learning citizens and social artists, these are the kinds of interventions that have the potential to increase social learning capability at a systemic level.

The role of TeachMeet, Subject Associations and various social media groups are increasingly significant players in the educational Landscape of Practice. As Giles (2017) suggests, teachers today are wanting to choose not just the content of their professional learning but how it is delivered. She goes on to explain that “Adult Learning that is active, experiential and teacher-led leads to greater, sustainable outcomes” (para. 10). The fact that a growing number of ECSTs take time to attend face-to-face gatherings after school or at weekends or to regularly engage in online chats on weekends suggests that these Social Learning Spaces meet their needs for connection with other educators. This is a preferred option to so called ‘experts’ being flown in for whole school professional learning with little follow-up (cf. Fullan & Quinn, 2016). The ECSTs in this study were also able to select which TeachMeet event or sessions (where there were separate session co-running at particular events) they wished to attend or which online chat session on Twitter they might tune into. It would appear that it is no longer feasible to assume a one-size-fits-all approach to professional learning is

likely to appeal to a new generation of ECSTs. This is also the type of democratized, free and mobile learning referred to by Mitchell (2017).

In addition to enhancing professional identity for ECSTs, TeachMeet and other online communities also gave ECSTs the chance to enhance their social connection. As quoted in Chapter 6, Anonymous 2 in his/her questionnaire felt she was developing a stronger social network on Twitter. By its very nature, TeachMeet is a social gathering, allowing time at the start, in the middle, and at the end for teachers to interact with each other. Further, the annual conferences held by Teach/Tech/Play are highly social, with teachers freely sharing their ideas with each other. Anonymous 11 reflected “Online communities are great for asking questions in which you can get a variety of feedback. It also allows me to feel that others have similar experiences.” These ECSTs have potentially more social connection than average, given that they have a large range of contacts, spread throughout the world, on the associated social media outlets of Twitter to turn to whenever they need assistance.

If ECSTs gain an enhanced sense of professional identity, self-efficacy and social connection in participating in outside CoPs, then it also became apparent that the schools themselves benefitted from their participation. Wenger-Trayner, et al. (2014) describe the success value of communities in terms that include connecting beyond the institution and interacting with other communities. Such connections help to keep CoPs energised. The ECSTs discussed in Chapter 4 were strong in their understanding of the attributes they can bring to a school, such as “fresh ideas that align more with the 21st century” (P1) and a “fresh perspective in line with current research in practice and technology” (Anon.13). However, there are not always avenues in schools for ECSTs to share their innovative ideas. The value of TeachMeet and Subject Associations are that they not only give ECSTs a forum for sharing their ideas, but they also give them authenticity and openings for sharing back in their school.

Overall, TeachMeet and Subject Associations where teachers can gather from many different schools and design their own professional learning are not only an invaluable asset to ECSTs in terms of their

professional identity and social connection, but a means of enhancing these qualities if they can share their learning with their colleagues at school. In addition, there were advantages for the school in terms of having a stronger cohort of ECSTs. Wenger-Trayner et al. (2017) on their website list a number of success factors that a CoP might look for and this includes "connection to a broader field" and "interactions with other communities." These ECSTs were able to provide these connections and links, helping to enrich their school CoP through their external involvements.

A number of key recommendations emerged from the findings in this chapter that are discussed in the concluding chapter, along with directions for future research.

Chapter 8 Conclusion

> *The four travellers passed through the rest of the forest in safety, and when they came out from its gloom saw before them a steep hill, covered from top to bottom with great pieces of rock. "That will be a hard climb," said the Scarecrow, "but we must get over the hill, nevertheless."* (Baum, 2015, p. 114)

This study set out to determine whether Communities of Practice could offer value to the professional learning of early career secondary teachers in Australia. It was motivated by an awareness of the attrition rates of early career teachers highlighted by the findings of *The Initial Teacher Education: Data Report 2017* (AITSL, 2017c) that 15% of teachers in their first five years of teaching were likely to leave within one to five years, with a further 22% unsure about the future of their teaching career (p. 89). The researcher's background in working with pre-service teachers at an Initial Teacher Education (ITE) institution exposed her to the realities of this situation, where hopes and dreams were often shattered by limited ongoing employment opportunities, praxis shock (Ballantyne, 2007; Veenman, 1984; Watters, and Diezmann, 2013) and insufficient support in the schools in which they did eventually find work. The lack of available long term contracts and ongoing positions for ITE graduates is also reflected in the findings of this same AITSL report that only 46% (*n* = 2,511) of undergraduates and 40% (*n* = 1,476) postgraduates were able to find full time ongoing work in schools in 2015 (AITSL, 2017c). Many of the remaining 50% or more of graduates who do not get a position become the casual relief teachers, the unsupported but necessary workers on the peripheries of schools, that Charteris et al. (2015) refer to and who feature highly in the data from this study.

The findings add new insights into a growing body of literature and have relevance to educational practice, in terms of enhancing an understanding of how schools can best support early career secondary teachers, including those on casual relief or short-term contracts. There are also implications for how ITE institutions can better prepare graduating

students in regards to the options available to them for support. This is particularly important in a time when less than half of the number of graduating students will find an ongoing position, at least in their first few years out of college (AITSL, 2017c). It is also a call for ECSTs to recognise the value they might gain from belonging to more than one CoP, whether that be a school CoP and an online one or some other combination. Specific recommendations are listed below:

- Given the value of a culture of growth exemplified in Communities of Practice for the professional learning of ECSTs that has been illustrated in this study, schools should aim to continue to build the professional capital of their school community. This can be facilitated by the appointment of a Master teacher—as was described in Chapter 5 at Remote School—or their equivalent who can be the social artist Wenger (2009) describes. Their task is to inspire and guide the staff and to encourage them to work collaboratively through Communities of Practice to achieve the best outcomes for students. They have a particular role in providing opportunities for ECSTs to build up their self-efficacy, professional identity and social connection. The involvement of the Principal and other senior executive members in CoPs is highly recommended, as was reflected in the cases of Rural College and Remote SHS in Chapter 5.
- It has become clear in this study that schools should note the importance of supporting beginning teachers. Having a meaningful induction over an extended period of time and an appropriately chosen mentor, is vital for a beginning teacher to feel adequately supported. This study strongly adheres to the AITSL (2017b) recommendation that "making induction available to all beginning teachers, not just those on permanent contracts or in metropolitan areas" should be a priority for all schools (p. 14). However, as was seen in Table 4.5 in Chapter 4, 50% of ECSTs felt that they were not well supported by an induction. Such participants could include those such as P6 who described his induction as a "very watered down version" because he arrived a month after the start of Term 1 or P51 who, as a mature-aged teacher, received neither an induction nor a

mentor when she began at her school. Clearly, there are implications for schools to be more consistent in making induction more targeted and more comprehensive for all new ECSTs, whether they come at the start of the year or part way through and even if they are mature-aged or a casual relief teacher. As Lovett and Cameron (2011) found in their research with New Zealand schools, even though policies such as induction were mandated nationally, the experience of ECSTs was variable, with a number of the teachers they interviewed feeling unsatisfied with the minimalist approach of their school. Also, schools need to ensure that mature-aged beginning teachers have a mentor commensurate with their age and that their needs are not underestimated. The analysis of support related to age group revealed in Table 4.4 in Chapter 4, that there was a statistically significant difference in *support* scores between the *Older than 35* age group (mean rank = 28.98) and each of the other age groups. In addition, AITSL (2017b) found in their survey of new graduates "that early career teachers who had received induction were most likely to indicate their school's induction focused on orientation (96%)" (p. 88). This suggests that many schools are doing the minimum of a one to two day's induction, rather than an extended program. In light of this, it is recommended that Australian schools follow the lead of European countries such as Malta (see Chapter 2) in setting up national formalised programs for induction that are not one-off events, but extend at least over most of the first year of an ECST's professional life, regardless of their age or employment status.

- A recommendation from this study is that schools should consider the best ways they can support the many casual relief and short–term contract teachers they currently employ. As AITSL (2017b) reports, this is now the way that most ECSTs begin their teaching career. Yet these ECSTs emerged as the most unsupported and disadvantaged sub-group in this study. Suggested measures include providing them with a desk in a staffroom/office (as far as possible), inviting them to attend in-school professional learning and ensuring that there is someone they can turn to for support or any questions they might have throughout the day. It might

not be practical to provide a mentor for a very short term casual relief teacher, but if they are staying for a term or more, then the recommendation is that they are given a mentor. This is in line with a key priority from AITSL (2017b) that "supporting experienced teachers to deliver practice-focused mentoring will increase the likelihood that early career teachers will have the most positive experience of induction" (p. 13).

- It is further recommended from this study that teachers in remote and rural schools be encouraged by their schools to utilise the free and available facility of private Facebook groups or similar social media outlets to connect with other educators in their same discipline. This is particularly important for ECSTs teaching specialized subjects, senior subjects and Languages. This study thus suggests that remote schools look at the possibility of ECSTs, especially those teaching senior subjects, being given slightly reduced workloads to allow time for them to access the online academic support they might need.
- It is also recommended that ITE educators consider the best ways they can prepare graduates for an uncertain future in the workforce. This could include bringing in speakers who can promote the value of private Facebook groups and Subject Associations or showing students how to set up a PLN on Twitter. It could also mean talking to them about TeachMeet and other forms of unconference that might provide options for ongoing professional learning. TeachMeet strongly encourages pre-service teachers to attend their gatherings and often it is only a matter of their ITE lecturer promoting the gathering and possibly attending with them to encourage their involvement. Once a pre-service teacher has experienced this form of professional learning there could be possibilities for following up on the experience and including it as part of a portfolio of options for future learning.
- Finally, it is recommended that early career secondary teachers be encouraged to explore the growing number of opportunities available to them for professional learning beyond the school. This might be

facilitated by a broader advertising program from groups such as TeachMeet, so that more teachers are aware of their offerings.

Directions for Future Research

The outcomes of this study make an original contribution to the knowledge and understanding of the value and range of experiences that comes from early career secondary teachers being involved in more than one Community of Practice or a Social Learning Space to support their professional learning. This aligns with the third and most recent phase of Wenger-Trayner et al.'s (2017) concept of Communities of Practice as a Landscape of Practice. How teachers can operate in such a social landscape, is a key question for future research. As this study highlighted, increasingly, teachers are finding themselves drawn to online sites and chat sessions, such as Aussie Ed, which fosters a membership of thousands with many tuning in and engaging in dialogue every Sunday night over most of the year. These online spaces are relatively new players in the professional learning scene for teachers and the value that can be drawn from them is yet to be fully understood. At present, it seems there is only a small percentage of teachers who are regularly involved in any Personal Learning Network such as Twitter or private Facebook groups. As these are free and readily available technologies that do not take teachers from their classes, this research suggests that more use could be made of them. School leaders and policy makers need to understand these profession-led initiatives and how they might promote and support them, without seeking to control them. Further research with a larger sample might assist with this.

Finally, the quantitative and qualitative data collected in this study indicated that participants in Independent and Catholic schools had more positive support experiences than those in State schools. The exception to this was Remote SHS. As the number of participants in this study was relatively small, it is recommended that further research be conducted with a larger sample.

Concluding Remarks

This study, as stated at the outset, aimed to honour the voices of early career secondary teachers. In doing so, it has revealed stories of pain, stories of struggle, stories of success, stories of relief, stories of satisfaction and pride. The data provide a snap shot of this group of early career secondary teachers who face an uncertain future with the increasing casualisation of the teaching profession and the shortage of ongoing, full time positions that older teachers once took for granted. It has delved into the stories of schools that hold out a shining light to these teachers–welcoming them with comprehensive induction programs, providing them with appropriate mentors and, most of all, allowing them to participate in various Communities of Practice operating within the school. The hope of this study is that these kinds of support becomes universal, the norm rather than the exception, so that early career secondary teachers can gradually build their self-efficacy, professional identity and social connection—their career, in fact—rather than add to the statistics of teacher attrition.

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Appendix 1 Questionnaire

Q1 Are you a primary or secondary teacher?
- o Primary
- o Secondary

If Primary is selected. Skip to: What particular benefits do you believe you bring to a school community?
Q2 What is your postcode/zip code?
Q3 What sector do you belong to?
- o State
- o Independent
- o Catholic

Q4 What age group do you belong to?
- o Less than 25
- o 26–30
- o 31–35
- o Older than 35

Q5 How many full time (equivalent) years have you been teaching?
- o less than 1 year
- o 1–2 years
- o 3–5 years
- o more than 5 years

Condition: more than 5 years is selected. Skip to: End of Survey
Q6 What main subject area/s do you teach in?
Q7 How well supported do you feel as an early career teacher in you school? (Sliding scale of a face)
- o 1
- o 2
- o 3
- o 4
- o 5

Q8 Where do you look for support? Click as many as are applicable
- o my mentor at school
- o my staffroom/office teachers
- o other teachers in my subject area
- o a collaborative group of teachers at my school
- o a collaborative group of teachers outside my school or online (e.g. subject associations
- o no support is available

Q9 Other form of support? (open-ended question)
Q10 How effective have they these forms of support been in helping you develop as a teacher? (sliding scale from 0 to 100)
- o induction program at school when I first started
- o my mentor at school
- o my staffroom/office teachers
- o a collaborative group of teachers at my school
- o a collaborative group of teachers online or outside my school
- o other teachers in my subject area

Q11 Do you belong to one or more of these communities (based at your school, outside of school or online? More than 1 box can be ticked)

- School Community of Practice/collaborative group of teachers
- TeachMeet
- Teach Tech Play
- Teach Connect
- Aussie Ed
- None of the above

Q12 How many gatherings of your community/ies have you attended/viewed/participated in? (Likert scale 0, 1–2, 3–4, 5 or more for each item)

- TeachMeet Teach
- Tech Play
- School-based community
- Teach Connect
- Aussie Ed

Q13 Choose the gathering you most participate in: Why do you participate in these gatherings? (of TeachMeet, Teach Tech Play, Aussie Ed and/or your school Community of Practice) (Likert Scale: Strongly Disagree (1) to Strongly Agree (5))

- I participate to learn new skills to use in my classes
- I participate to have a chance to present my ideas to the group
- I participate to develop a stronger social network on Twitter or other social media
- I participate to meet up with old friends
- I participate to be inspired by innovative teachers

Q.14 Other reason? (open-ended question)

Q15 How have these gathering impacted on you as a teacher? (Likert scale: Strongly Agree (5) - Strongly Disagree (1))

- The gatherings are fun and inspiring
- They are mostly relevant to me
- I have acquired new skills and knowledge
- I am gaining confidence in my ability to engage in my teaching practice
- I see opportunities of learning that I didn't see before
- I feel I am more successful as a teacher, generally, through my participation
- My new understanding from being involved has led to change in my school as a whole
- I feel have gained more from these gatherings than any other forms of professional development

Q16 Other reason? (open-ended question)

Q17 To what extent do each of the following statements reflect the influence that these gatherings have had on your professional identity? (Likert scale: Not at all influential (1)- Extremely influential (5))

- I feel more inspired by the work I do as a teacher
- I have been able to encourage others from my school to get involved
- I have inspired other colleagues at my school through my participation
- I have been led to reflect more deeply on what it means to be a teacher
- I have changed my perspective on what it means to be a teacher

Q18 Other reason? (open-ended question)

Q19 To what extent do each of the following statements reflect the influence that these gatherings have had on your social connection with

other teachers? (Likert Scale: Not at all influential (1) - Extremely influential (5)

- I have made connections that could influence my development as a teacher
- I feel less isolated in my teaching practice
- There are people I have met who I trust I could turn to for help
- I have asked for help through connections I have made

Q20 Other influential or very influential reason? (open-ended question)

Q21 Are there any further comments you would like to make? (open-ended question)

Q22 What particular benefits do you believe you bring to your school as an early career teacher?

Q23 Are you willing for me to contact you for a short follow-up interview?

- Yes
- No

Condition: Yes, is selected. Skip to: Q.24. No is selected. Skip to End of survey

Q24 Thank you for agreeing to be interviewed. Please give me your name, school and email address (open-ended response)

Appendix 2 Focus Group and Interview Questions

Preliminary questions

- What has your experience been like so far?
- What was it like the first week or two at school?
- Where do you look for support at your school?

Immediate Value: Can you tell me about your experiences in your Community of Practice?

Prompts

- Have the gatherings been fun, inspiring, convivial?
- What is the best part of the gathering for you?
- How relevant to you are the activities/interactions?
- Did you make any new contacts?
- How many gatherings have you attended?
- Have you ever been a presenter?

Potential Value: How has participating in this CoP changed you?

Prompts

- Have you acquired new skills or knowledge?
- Do you feel more inspired by the work you do?
- Have you gained confidence in your ability to engage in practice?
- Do you feel less isolated?
- Do you trust members of your CoP enough to turn to them for help?
- Do you see opportunities for learning that you did not see before?
- If you have been a presenter, how has that changed you?

Applied Value: What difference has participating made to your teaching practice?

Prompts

- Have you used the ideas you heard about in your own classes?
- Do you feel your classes have benefitted?
- Can you give me some examples of this?
- Did you share your ideas with others at your school who did not attend?
- Have you connected with others through social media?
- Do you intend to continue participating?

Realised value: What difference has it made to your ability to achieve what matters to you and your school?

Prompts

- Has your school benefitted overall?
- Does your school know that you attend this CoP (for outside of school CoPs)?
- Has your participation contributed in any way to how you are viewed within your school community?

Reframing value: Has it changed you or your school's understanding and definition of what matters?

Prompts

- Do you have a better understanding of your identity as a teacher through attending this CoP?
- Do you feel your school is better off because you attend this CoP?

If social media is CoP:

- Are they public or private groups that you belong to?
- Does it make a difference if they are public or private?

Appendix 3 Participant Information Sheet

University of Southern Queensland

Participant Information for USQ Research Project Questionnaire

Project Details

Title of Project: An exploration of the value of communities of practice for the professional learning of early career secondary teachers in Australia.

Human Research Ethics Approval Number: **H15REA262**

Research Team Contact Details

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Description

This project is being undertaken as part of a Doctor of Philosophy.

The purpose of this project is to explore the value of communities of practice for early career secondary teachers in Australia. For the purpose of this research, 'early career' refers to the first five years of a teacher's career. Current research suggests that between 8%-50% of ECSTs consider permanently leaving the teaching profession, with higher figures for male teachers and for teachers in remote areas. The implications of this for the teacher personally, their school and society are considerable.

The researcher requests your assistance because you are an early career teacher in the first five years of your teaching and because you are involved in a collaborative community of practice at your school or with an outside group such as Teach Meet, Teach Tech Play or Teach Connect.

Participation

Your participation will involve completion of a survey that will take approximately 10 minutes of your time.

Questions will include

- Why do you participate in collaborative gatherings of teachers (within your school, outside of school or through electronic media)?
- How does this involvement support your development as a teacher?

Your participation in this project is entirely voluntary. If you do not wish to take part you are not obliged to.

Appendix 4

Consent Form for Focus Groups and Semi-Structured Interviews

University of Southern Queensland

Consent Form for USQ Research Project Interview

Project Details

Title of Project: An exploration of the value of communities of practice for the professional learning of early career secondary teachers in Australia

Human Research Ethics Approval Number: **H15REA262**

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Statement of Consent

By signing below, you are indicating that you:

- Have read and understood the information document regarding this project.
- Have had any questions answered to your satisfaction.
- Understand that if you have any additional questions you can contact the research team.
- Understand that the interview will be audio recorded.
- Understand that I will be provided with a copy of the transcript of the interview for my perusal and endorsement prior to inclusion of this data in the project
- Understand that you are free to withdraw at any time, without comment or penalty.
- Understand that you can contact the University of Southern Queensland Ethics Coordinator on (07) 4631 2690 or email ethics@usq.edu.au if you do have any concern or complaint about the ethical conduct of this project.
- Are over 18 years of age.
- Agree to participate in the project.

Participant Name	
Participant Signature	
Date	

Appendix 5 Ethics Documentation

OFFICE OF RESEARCH
Human Research Ethics Committee
PHONE +61 7 4631 2690| FAX +61 7 4631 5555
EMAIL ethics@usq.edu.au

12 January 2016

Mrs Bernadette Mercieca
68 Bond Street
Ivanhoe
Melbourne VIC 3079

Dear Bernadette

The USQ Human Research Ethics Committee has recently reviewed your responses to the conditions placed upon the ethical approval for the project outlined below. Your proposal is now deemed to meet the requirements of the *National Statement on Ethical Conduct in Human Research (2007)* and full ethical approval has been granted.

Approval No.	**H15REA262**
Project Title	An exploration of the value of communities for the professional learning of early career secondary school teachers in Australia
Approval date	12 January 2016
Expiry date	12 January 2019
HREC Decision	**Approved**

The standard conditions of this approval are:

(a) conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC
(b) advise (email: ethics@usq.edu.au) immediately of any complaints or other issues in relation to the project which may warrant review of the ethical approval of the project
(c) make submission for approval of amendments to the approved project before implementing such changes
(d) provide a 'progress report' for every year of approval
(e) provide a 'final report' when the project is complete
(f) advise in writing if the project has been discontinued, using a 'final report'

For (c) to (f) forms are available on the USQ ethics website:

Appendix 6 Descriptive Statistics from Chapter 4

Appendix Table 6a

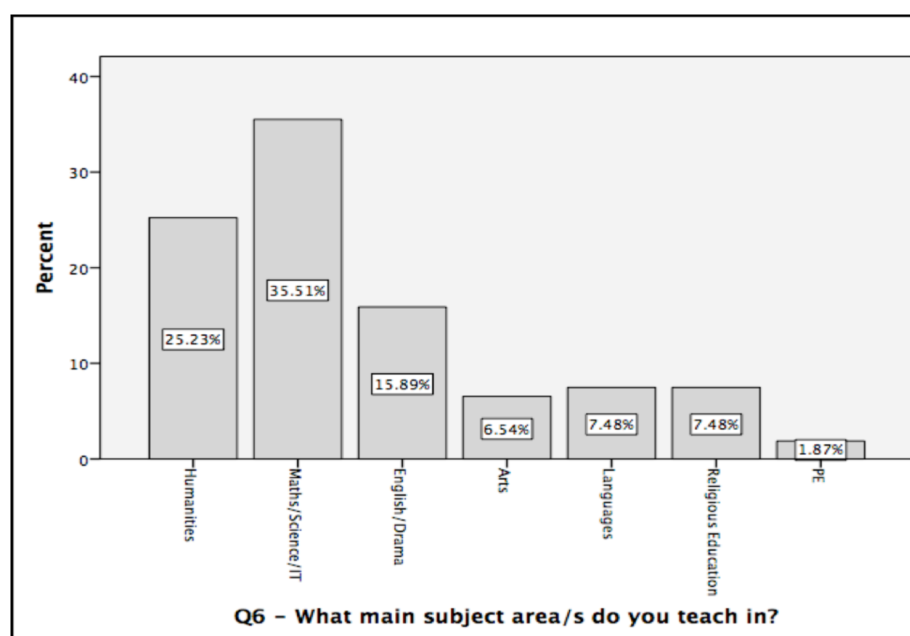
Cross tabulation of levels of teaching experience by sector (n =107)

	Level of teaching experience			
Sector	<1 year	1–2 years	3–5 years	*n*
State	15	13	15	43
Independent	11	9	8	28
Catholic	15	12	9	36
Total (*n*)	41	34	32	107
Total (%)	38	32	30	100

Appendix Table 6b

Descriptive statistics of age groups (n =107)

Age (years)	*n*	%	cu
25 or less	36	33.6	33.6
26–30	42	39.3	72.9
31–35	10	9.3	82.2
>35	19	17.8	100



Appendix Figure 6A. Main subject areas of participants (*n* = 107)

Appendix 7 Rotated Component Matrices

Appendix Table 7a

Initial Rotation Components

Total Variance Explained									
	Initial Eigenvalues	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings						
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.686	33.418	33.418	7.686	33.418	33.418	5.729	24.908	24.908
2	2.997	13.028	46.446	2.997	13.028	46.446	3.216	13.983	38.891
3	2.371	10.307	56.753	2.371	10.307	56.753	2.791	12.135	51.026
4	1.624	7.060	63.813	1.624	7.060	63.813	2.343	10.185	61.211
5	1.257	5.467	69.279	1.257	5.467	69.279	1.593	6.925	68.135
6	1.029	4.475	73.755	1.029	4.475	73.755	1.292	5.619	73.755
7	.825	3.585	77.340						
8	.699	3.038	80.378						
9	.616	2.680	83.058						
10	.558	2.427	85.485						
11	.480	2.086	87.571						
12	.433	1.882	89.452						
13	.389	1.693	91.146						
14	.369	1.604	92.750						
15	.329	1.430	94.180						
16	.272	1.184	95.363						
17	.240	1.045	96.408						
18	.234	1.019	97.427						
19	.177	.770	98.197						
20	.142	.619	98.815						
21	.119	.515	99.331						
22	.095	.412	99.742						
23	.059	.258	100.000						
Extraction Method: Principal Component Analysis.									

Appendix Table 7b

Final Rotation Components

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.248	42.634	42.634	5.641	33.182	33.182
2	2.579	15.172	57.806	3.317	19.514	52.696
3	1.912	11.246	69.052	2.781	16.356	69.052
4	.880	5.176	74.229			
5	.702	4.128	78.356			
6	.644	3.790	82.146			
7	.515	3.030	85.176			
8	.465	2.737	87.913			
9	.400	2.350	90.263			
10	.344	2.026	92.289			
11	.331	1.947	94.236			
12	.262	1.544	95.779			
13	.243	1.427	97.207			
14	.166	.977	98.184			
15	.132	.776	98.960			
16	.105	.619	99.579			
17	.072	.421	100.000			

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation (suppression of small co-efficients)

Appendix Table 7c

Rotation Component Matrix

Rotated Component Matrix[a]			
	Component		
	1	2	3
Q15_3 - I have acquired new skills and knowledge	.901	.144	
Q15_4 - I am gaining confidence in my ability to engage in my teaching practice	.893	.202	
Q15_2 - They are mostly relevant to me	.885	.155	
Q15_5 - I see opportunities for learning that I didn't see before	.880	.139	.111
Q15_6 - I feel I am more successful as a teacher, generally, through my participati...	.816	.177	.152
Q15_1 - The gatherings are fun and inspiring	.799	.235	
Q15_8 - I feel I have gained more from these gatherings than any other forms of pro...	.650	.168	.271
Q15_7 - My new understanding from being involved has led to change in my school as...	.554	.244	.398
Q19_3 - There are people I have met who I trust I could turn to for help	.267	.879	
Q19_4 - I have asked for help through connections I have made	.256	.847	
Q19_1 - I have made connections that could influence my development as a teacher	.304	.803	.186
Q19_2 - I feel less isolated in my teaching practice	.188	.769	.112
Q17_2 - I have been able to encourage others from my school to get involved		.210	.786
Q17_1 - I feel more inspired by the work I do as a teacher	.157		.752
Q17_4 - I have been led to reflect more deeply on what it means to be a teacher	.106		.741
Q17_5 - I have changed my perspective on what it means to be a teacher	.338	.173	.634
Q17_3 - I have inspired other colleagues at my school through my participation	-.149	.486	.562

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

i