Mentoring beginning teachers in Catholic schools in Western Australia: An exploratory study

John Topliss

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CHAPTER 3

RESEARCH DESIGN

Introduction

As the present study aimed to gain more than a mere understanding of the mentoring of Beginning Teachers from the perspective of what might be called “commonsense realism”, an epistemology was considered in conjunction with the formulation of the research questions. The chapter begins with an identification of where the study is located epistemologically. As Moss (2010) indicated, “Research in the field of induction and mentoring with a few exceptions is theoretically impoverished and is dominated by what Law described as ‘commonsense realism’” (p. 51). The chapter then moves to describing the three phases of the study; examining the research methodology; and giving attention to aspects of method. The chapter culminates with consideration being given to matters of trustworthiness and consistency, and reference being made to compliance with ethical standards.

Epistemology

The epistemological position of the study is thus grounded in the belief that in order to generate a truly comprehensive outcome, scientifically generated data ought to be complimented by phenomenologically derived data, as both approaches together, through such strategies as survey data and focus group interviews, play an important role in better understanding reality. Burns (1995) recognised this potential when he wrote, “Quantitative and qualitative methods may appear to be opposites derived from different philosophies, yet both are legitimate tools of research and can supplement each other” (p. 241).

Positivist epistemology can be used effectively to interpret large data sets of varied populations using cross-sectional and/or longitudinal techniques (Creswell & Plano Clark,
2011). Results may then be generalisable to broader populations on the basis of investigations with a randomised sample. The advantage of using a positivist orientation is that complementary instruments capture broadly-based information; however, in-depth data for more fine-grained interpretations are difficult to access. A phenomenological approach, on the other hand, allows the researcher to delve deeper into the ontological significance of a particular encounter. Rather than data being captured, phenomena are investigated.

The Heideggerian approach to phenomenology, as described by Cole (2010), has a distinct ontological focus on “one being in the world, and being in the world with others” (p. 1). This approach became an important consideration in the present study as the intention was to develop an understanding of in-depth personal experience. The focus then, is similar to that identified by McNally and Blake (2012), who found in their description of how an Early Career Teacher formed their professional identity that, “as the evidence unfolded and yielded new understandings…we became aware of our implicit closeness to a Heideggerian phenomenology” (p. 199). In this regard, the study espouses a pragmatic orientation in that it is problem-centred and based in real-world experiences (Creswell & Plano Clark, 2011).

As both a quantitative and qualitative approach was seen to be desirable for the current study, it was decided to use mixed-method methodology while at the same time referring broadly to grounded theory. Both of these approaches are discussed in what follows.

Methodology

Mixed methods.

In the view of Creswell and Plano Clark (2007), the basic premise of mixed methods research is that, “…the use of quantitative and qualitative approaches in combination,
provides a better understanding of research problems than either approach alone” (p. 8). Concomitantly, Greene (2008) stated that mixed methods research “promotes pragmatism as its philosophical champion” (p. 8). Thayer, (1968, as cited in Crotty, 1998) suggested that, “For the pragmatist, therefore, meaning has reference, if sometimes only remotely so, to the ordinary situations and conditions in which actions occur” (p. 73). Saldaña (2012) had a similar view stating, “I myself take a pragmatic stance toward human inquiry and leave myself open to choosing the right tool for the right job…The more well versed you are in the field’s eclectic methods of investigation, the better your ability to understand the diverse patterns and complex meanings of social life” (p. 2). As the present research desired to obtain broad spectrum as well in-depth information as it applied to mentoring, and as a pragmatic approach was seen as best addressing the research questions, a determination was made to utilise a mixed method approach.

For the purpose of this study, collection and interpretation of the data involved a mixed methods convergence design. Following Creswell and Plano Clark (2007), these combined methods (QUAN + QUAL) form a specialized mixed methods convergent model (Figure 3:1). Such a strategy involves separate collection and analysis of results from survey questionnaire (QUAN) and focus group interview data (QUAL). The data findings are then subjected to convergence for the purpose of contrast and comparison. Interpretation involves analysing the information from these findings in order to answer the Research Questions.
Figure 3.1. Mixed methods triangulation design: Convergence model (After Creswell & Plano Clark, 2007, p. 64).

Theoretical framework.

It was also considered that grounded theory, anchored in inductive methodology would make a valuable contribution to the study. As Strauss and Corbin (1998) proffered, “grounded theories, because they are drawn from data, are likely to offer insight, enhance understanding, and provide a meaningful guide to action” (p. 12). Grounded theory has been defined as, “a theory grounded in the data rather than based on some a priori constructed ideas, notions, or system” (Wiersma, 1995). As the study relied on the emergence of conceptual categories, it was considered that the research procedures of grounded theory might be advantageous in organizing and categorizing concepts as they emerged. It has been suggested that even if no theory emerges, grounded theory research “will still retain its descriptive value” (Wiersma, 1995, p. 13).

Based on the discussion thus far, Figure 3.2 presents the theoretical framework for the research. The figure indicates how the study is integrated theoretically; it begins with the preferred epistemological perspective, moves to considering research exigencies and concludes with an interpretation of the data.
**Figure 3.2.** Theoretical framework for the study.

**Methods**

What follows is a linear description of how the study was undertaken. The various components under this methods rubric are identified and described in the remainder of the chapter.

**Extraction of descriptive categories for planning a mentoring framework.**

As identified in the review of the literature, there exists a vast corpus of research on models of mentoring and mentoring programs. The value of grounded theory procedures became immediately apparent in helping to extract, from the literature, relevant concepts pertaining to the creation of a mentoring framework, that could then be tested in the “real world” of the study environment. As Corbin and Strauss (1990) stated, “As in other

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qualitative approaches, the data for a grounded theory perspective can come from various sources. The data collection procedures involve interviews and observations as well as such other sources as government documents, video tapes, newspapers, letters, and books – anything that may shed light on questions under study” (p. 5). Strauss and Corbin (1998) referred to this approach as conceptualising the phenomena, which resulted in the creation of a defined set of attributes or concept descriptors. Strauss and Corbin (1998) argued that, “The purpose behind naming phenomena is to enable researchers to group similar events, happenings, and objects under a common heading or classification” (p. 103). What Corbin and Strauss termed attributes or concepts have in the present research been identified as theme descriptors (from here on referred to as descriptors). This nomenclature was chosen as it more accurately represents the data under consideration.

The first step in the research was to identify descriptors that needed to be considered before a mentoring framework could be planned. After a thorough investigation of the literature, descriptors relating to the creation of a mentoring framework were extracted for the present study (Table 3.1). Where similar descriptors were identified across studies, these were synthesised to into a representative statement. The 18 descriptors that were extracted could then be used to provide the basis for the mentoring framework.
Table 3.1  
*Theme Descriptors Related to Developing a Framework for Effective Mentoring as Identified in the Literature*

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Descriptor</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personal Expectations</td>
<td>Of own teaching and mentoring</td>
</tr>
<tr>
<td>2</td>
<td>Parental Expectations</td>
<td>As experienced by novice teachers</td>
</tr>
<tr>
<td>3</td>
<td>Staff Expectations</td>
<td>Others’ expectations of novice teachers</td>
</tr>
<tr>
<td>4</td>
<td>Principal and Leadership Expectations</td>
<td>Of Beginning Teachers, system &amp; mentors</td>
</tr>
<tr>
<td>5</td>
<td>University Expectations and Training</td>
<td>As experienced by Beginning Teachers</td>
</tr>
<tr>
<td>6</td>
<td>Catholic Education Expectations</td>
<td>System expectations of graduate teachers</td>
</tr>
<tr>
<td>7</td>
<td>State Expectations</td>
<td>Relating to teacher registration</td>
</tr>
<tr>
<td>8</td>
<td>National Expectations</td>
<td>As articulated through national standards</td>
</tr>
<tr>
<td>9</td>
<td>School/Parish Interactions</td>
<td>Regard for Catholic community</td>
</tr>
<tr>
<td>10</td>
<td>Mentor Characteristics and assistance</td>
<td>Selection and training of mentors</td>
</tr>
<tr>
<td>11</td>
<td>City vis-à-vis Country Issues</td>
<td>Geographic and demographic differences</td>
</tr>
<tr>
<td>12</td>
<td>Professional Development Programs</td>
<td>Availability and quality</td>
</tr>
<tr>
<td>13</td>
<td>Mentoring Programs and Experiences</td>
<td>experiences of a mentoring program</td>
</tr>
<tr>
<td>14</td>
<td>Group Aspirations re mentoring</td>
<td>All Beginning Teachers in a school</td>
</tr>
<tr>
<td>15</td>
<td>Personal Aspirations re mentoring</td>
<td>Graduates, novice teachers and leaders</td>
</tr>
<tr>
<td>16</td>
<td>Emotions during Mentoring experience</td>
<td>Beginning teacher emotions re mentoring</td>
</tr>
<tr>
<td>17</td>
<td>Leadership Mentor Training</td>
<td>Availability and quality</td>
</tr>
<tr>
<td>18</td>
<td>Mentoring Opportunities</td>
<td>Opportunities for peer learning</td>
</tr>
</tbody>
</table>

**Conceptual Framework and Research Questions**

Having identified from the literature the descriptors required for the development of a mentoring framework, these now needed to be tested to determine their veracity in the Western Australian Catholic educational context. Such a task was undertaken with three different groups which represented three discrete (by cohort) yet interrelated (by orientation) phases of the study. Prior to doing so, the research questions presented earlier are re-
presented here for ease of reference. Figure 3.3 then shows how these relate to the conceptual framework for the study.

*Primary Overarching Research Question:*

To what extent is early career mentoring operating effectively in Catholic school environments in Western Australia.

*Subsidiary Questions:*

1) Does participation in a mentoring program for Early Career Teachers affect their career aspirations?

2) What perceptions do CUWA Post-Internship (Pre-Service) teachers hold regarding mentoring prior to the commencement of their teaching career?

3) How have graduate teacher perceptions of mentoring changed as a result of having been teaching for three school terms?

4) What perceptions regarding mentoring do new graduates hold at the commencement of their teaching career?

5) What perceptions do principals have of how mentoring is conceived of in a Catholic School?

*Integrative Question:*

On the basis of Questions 1-5, what are considered to be the key principles that underpin the development of a Pre-Service and Beginning Teacher mentoring framework?
Figure 3.3. Conceptual Framework
Phases of the Study, Participant Selection, Instrument Selection.

It was decided to collect data separately for each group phase as this would assist discrete interpretation prior to the data being converged and interpreted as a whole. The phases, as described in the Research Conceptual Framework (Figure 3.3) are:

1) Phase One (Cohort One) consisted of obtaining survey and focus group interview data ECE/Primary/Secondary students from a Catholic University in Western Australia (CUWA) who had recently completed their 10 week Internship;

2) Phase Two (Cohort Two) consisted in total of 32 Catholic primary principals and one secondary principal who completed a survey and were engaged in a focus group interview.

3) Phase Three (Cohort Three) involved 36 beginning city and country teachers chosen as part of the trial of The Early Career Teachers Program in Catholic schools (described in Chapter 2) which had been initiated by the Catholic Education Office of Western Australia (CEOWA). As for principals, this group also completed a survey and were engaged in a focus group interview.

Survey questionnaires and focus group interview were selected as the instruments best suited gain the perspectives and experiences of participants during each of the three phases of this study, and so address the research questions. Survey questionnaires were selected because they sought to seek the perceptions of the mentoring experience through utilising a range of question techniques, which included multiple choice, Likert scales and open short answer written responses. The importance of web-based surveys to collect data was identified by Rosenbaum and Lidz (2007). They recommended that Dillman, Tortora and Bowker’s (1999) more traditional survey methods are a useful guide for designing web-based surveys. The advantages of on-line survey questionnaires are further described by Roztoki and Morgan (2002) as providing “Lower costs; wider distribution; automated data entry and
faster turnaround times" (p. 1). The surveys gathered simple statistical data about the mentoring experiences of Post-Internship (Pre-Service) teachers, Beginning Teachers and principals. In total, there were four survey questionnaires using the web-based Survey Monkey program (Rosenbaum & Lidz, 2007) and one non-web based paper self-reflection questionnaire. As the participant population was reasonably socio-economically homogeneous, and all participants had equal access to computer technology, it was considered that Survey Monkey would be the most efficient way to collect data from Post-Internship (Pre-Service) teachers, Beginning Teachers and principals.

The purpose of the focus group interviews was to gain a range of perceptions of the mentoring experiences of Post-Internship (Pre-Service) teachers, Beginning Teachers and principals. Focus group interviews were chosen because they present an opportunity to collect data on group interaction about the topic of mentoring by taping and then transcribing the responses for later detailed analysis. Focus Group interviews also require greater attention on the part of the moderator to gather greater depth from a participant compared to an individual interview (Morgan, 1997). In a focus group participants can spark off each other and so deliver deeper information that might otherwise be unavailable to the researcher. Data was collected in non-threatening and comfortable forums, with all participants appearing relaxed and keen to participate.

What follows is a description of each phase of the study. Prior to that though, a summary of the research plan is presented to provide an overview of the research phases; participant numbers in each phase; and data gathering locations, collection methods, relevant dates (Table 3.2).
Table 3.2

Research Details

<table>
<thead>
<tr>
<th>Data Collection Group</th>
<th>n</th>
<th>Date</th>
<th>Setting</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1: CUWA – Post-Internship Perceptions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a) CUWA Post-Internship Teachers Survey (QUAN)</td>
<td>13</td>
<td>4/11/12</td>
<td>School of Education, CUWA</td>
<td>Fremantle, 20 km from Perth</td>
</tr>
<tr>
<td>1b) CUWA Graduate Teachers Focus Group (QUAL)</td>
<td>5</td>
<td>26/11/12</td>
<td>St Therese Library CUWA</td>
<td>Fremantle, 20 km from Perth</td>
</tr>
<tr>
<td>1c) CUWA Focus Group follow-up Survey</td>
<td>5</td>
<td>7/9/13</td>
<td>Home/school</td>
<td>Web-based</td>
</tr>
<tr>
<td><strong>Phase 2: Principal Perceptions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2a) CEO Principals Survey (QUAN)</td>
<td>32</td>
<td>19/1/13</td>
<td>Home/school</td>
<td>Web-based</td>
</tr>
<tr>
<td>2b) CEO Principals Focus Group (QUAL)</td>
<td>16</td>
<td>6/8/13</td>
<td>CEO Doubleview IT Hub</td>
<td>Doubleview, 8 km from Perth</td>
</tr>
<tr>
<td>3a) City CEO Combined Beginning Teachers Survey (QUAL)</td>
<td>20</td>
<td>6/3/13</td>
<td>CEO James Nestor Hall</td>
<td>Leederville, 5.5 Km from Perth</td>
</tr>
<tr>
<td><strong>Phase 3: Beginning Teacher Perceptions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3b) City CEO Beginning Teachers Focus Group (QUAN)</td>
<td>20</td>
<td>6/3/13</td>
<td>CEO James Nestor Hall</td>
<td>Leederville, 5.5 km from Perth</td>
</tr>
<tr>
<td>3a) Country CEO Beginning Teachers Survey (QUAL)</td>
<td>12</td>
<td>13/4/13</td>
<td>St Joseph’s School Library</td>
<td>Boulder, 596 km from Perth</td>
</tr>
<tr>
<td>3b) Country CEO Combined Beginning Teachers Focus Group (QUAL)</td>
<td>12</td>
<td>13/4/13</td>
<td>St Joseph’s School Library</td>
<td>Boulder, 596 km from Perth</td>
</tr>
<tr>
<td>4a) Written Self-reflection Questionnaire June – September Combined Primary/Secondary City</td>
<td>20</td>
<td>7/6/13 21/8/13</td>
<td>CEO Doubleview IT Hub</td>
<td>Doubleview, 8 km from Perth</td>
</tr>
<tr>
<td>4b) Written Self-reflection Questionnaire June – September Combined Primary/Secondary Country</td>
<td>12</td>
<td>14/6/13 7/9/13</td>
<td>St Joseph’s School Library</td>
<td>Boulder, 596 km from Perth</td>
</tr>
<tr>
<td>5a) CEO Beginning Teachers-Primary City Survey</td>
<td>11</td>
<td>21/8/13</td>
<td>CEO Doubleview IT Hub</td>
<td>Doubleview, 8 km from Perth</td>
</tr>
<tr>
<td>5b) CEO Beginning Teachers-Secondary City Survey</td>
<td>9</td>
<td>21/8/13</td>
<td>CEO Doubleview IT Hub</td>
<td>Doubleview, 8 km from Perth</td>
</tr>
</tbody>
</table>

78
5c) CEO Beginning Teachers-Primary City Focus Group 11 21/8/13 CEO Doubleview IT Hub Doubleview, 8 km from Perth
5d) CEO Beginning Teachers-Secondary City Focus Group 9 21/8/13 CEO Doubleview IT Hub Doubleview, 8 km from Perth
5a) CEO Beginning Teachers-Primary Country Survey 4 7/9/13 St Joseph’s School Library Boulder, 596 km from Perth
5b) CEO Beginning Teachers-Country Secondary City Survey 9 7/9/13 St Joseph’s School Library Boulder, 596 km from Perth
5c) CEO Beginning Teachers-Primary Country Focus Group 4 7/9/13 St Joseph’s School Library Boulder, 596 km from Perth
5d) CEO Beginning Teachers-Secondary Country Focus Group 9 7/9/13 St Joseph’s School Library Boulder, 596 km from Perth

1 Perth is the capital city of Western Australia

**Phase 1: A Catholic university in Western Australia.**

The first phase of the study involved the Post-Internship (Pre-Service) education student group perceptions from a Catholic University in Western Australia (CUWA). The CUWA was chosen for this study as it was the only Catholic University in Western Australia and as such, many graduates from this University would end up teaching in Catholic schools. Participants were purposefully selected and invited to join the study if they were a 2012 Post-Internship (Pre-Service) teachers. The reason for collecting data from this group was to gain their perceptions of mentoring and discover any aspirations they held regarding mentoring since completing their Internship.

After obtaining permission from the Dean of Education (Appendix A) and Ethical clearance from the CUWA (Appendix B), data collection commenced with a briefing of education students at their final lecture. Some 80 ECE/Primary and Secondary graduate students who were present at the final lecture were briefed regarding the study and invited to participate. During the briefing, Post-Internship (Pre-Service) teachers were provided with an information sheet that explained the study and a consent form. Those willing to participate were instructed to complete a survey questionnaire using Survey Monkey (Rosenbaum & Lidz, 2007).
The survey was to be completed electronically from a link provided to the students on the information sheet provided. Disappointingly, only 13 students completed the survey. These represented ECE (n = 2) and Primary (n = 11) students (Appendix G). The survey was completed anonymously.

After completion of the survey, participants were asked if they wished to be involved in one follow-up focus group interview (Appendix H). Those who agreed were invited to reveal their contact details. Only five participants (ECE = 1; Prim = 4) indicated interest in attending the focus group and were subsequently contacted. Unfortunately, one of the five students could not attend the focus group meeting. This student however agreed to answer the focus group interview questions within a day of the focus group meeting and return the completed questionnaire by email, which the student did. Focus group data for all five participants was then transcribed using voice recognition software (Aleahmad, 2012). Debriefing for the focus group involved member checking, a qualitative strategy used in Interpretive Phenomenological Analysis to ensure trustworthiness and data quality (Teddlie & Tashakkori, 2009, p. 213). Such a step was taken to verify that the researcher’s representation of events, behaviours and phenomena had been correctly portrayed.

The same five participants from the focus group were contacted by email in the following year (September, 2013), and invited to complete a follow-up survey (Appendix L) after having been engaged in three terms of teaching. The purpose of this survey was to determine how their perceptions of mentoring had changed in the intervening year. This survey was again web driven with a link being provided to participants. The survey was the same survey as completed by The Early Career Teacher Program participants in August/September (Appendix L).
Phase 2: Catholic Primary Principals’ Perceptions.

The second phase of the study involved Catholic Primary Principals’ perceptions of mentoring Beginning Teachers in Catholic Schools in Western Australia. Participants were purposefully selected in that the criteria used involved utilising the current principal directory, sourced from the Catholic Education Office (CEO, 2012). All principals from either a city or country Catholic school in Western Australia were deemed eligible. Prior to collecting data, permission to approach principals was sought from and granted by the President of the Catholic Primary Principals Association (CPPA; Appendix C), who received both a copy of the survey instruments and an information sheet. The two instruments used to gather data from principals – a web-based survey (Appendix I) and one focus group interview – presented in Appendix J.

Over a two week period in January and February 2013, all principals were invited to complete the survey questionnaire and leave their details if they were interested in participating in a follow-up focus group interview. Principal data for both the survey group and focus group are provided in Table 3.3. The survey period was January/February 2013 and data was collected through a provided email link to Survey Monkey. Principals were provided with both an information sheet and an informed consent form for signing and returning. The focus group interview for principals was held in August 2013, at the Doubleview campus of Catholic Education Office. It was fortuitous that principals were already scheduled to meet at this venue with the Executive Director of Catholic Education. In arranging the focus group interview after this meeting, participation was maximized. Some principals travelled vast distances and represented both country and city locations throughout Western Australia. Two principals, who volunteered to participate in the focus group interview but who could not attend the meeting, emailed their responses for the focus group questions. Accordingly, their data was included in the research.
Mention needs to be made of the fact that one secondary principal, due to his interest in and involvement with the trial of The Early Career Teachers Program, also wanted to be included in the focus group interview. Although the intent of the research was on the ECE/Primary sector of Catholic education, it was felt that including this principal’s data might provide interesting insights. It would also have been considered disrespectful to have either discouraged the principal’s participation or accepted and then disregarded it. Further, as far composite schools are concerned (Table 3.3), these include secondary representation.

**Table 3.3**

*Principal Participation Data*

<table>
<thead>
<tr>
<th>Principal</th>
<th>Total (N)</th>
<th>Survey (n)</th>
<th>Country (n)</th>
<th>City (n)</th>
<th>Focus Group (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite</td>
<td>161</td>
<td>32</td>
<td>6</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Primary</td>
<td>112</td>
<td>32</td>
<td>5</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Secondary</td>
<td>27</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>161</strong></td>
<td><strong>32</strong></td>
<td><strong>6</strong></td>
<td><strong>10</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

1 Composite = Primary/Secondary

**Phase 3: Beginning Teacher Perceptions.**

The third and final phase of the study involved the perceptions of Beginning Teachers in Catholic Schools in Western Australia. Participants were purposefully selected through involvement in the trial of The Early Career Teachers Program. The selection of participants was co-ordinated by the CEOWA. All participants from the Program agreed to take part in the present study.

Permission to access all participants in the trial of The Early Career Teachers Program had previously been granted by the Executive Director of the Catholic Education Office in Western Australia in December 2012 (Appendix D). In January 2013, a meeting was initiated
by the researcher to meet with the coordinator of the trial of The Early Career Teachers Program at the Catholic Education Office of Western Australia. This meeting was necessary to ensure that data collection could be administered at appropriate junctures during the city and country meetings of trial The Early Career Teachers Program. The dates for each of The Early Career Teachers Program days is presented in Table 3.4.

Table 3.4

CEOWA Trial Beginning Teaching Meeting Dates and Participation 2013

<table>
<thead>
<tr>
<th>Location: City</th>
<th>Location: Country (Boulder)</th>
<th>Primary Beginning Teachers (city+country)</th>
<th>Secondary Beginning Teachers (city+country)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 6</td>
<td>April 13</td>
<td>15</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>June 7</td>
<td>June 14</td>
<td>15</td>
<td>17</td>
<td>32</td>
</tr>
<tr>
<td>August 21</td>
<td>September 7</td>
<td>15</td>
<td>17</td>
<td>32</td>
</tr>
</tbody>
</table>

The trial of The Early Career Teachers Program, consisted of three meeting dates conducted over a six-month period in 2013. This trial consisted of a total of 36 participants forming a combined City and Country beginning teacher cohort. The city locations were under 12 km from the city centre of Perth, Western Australia. In comparison, the country location for this study was hosted in Boulder, 596 km east of Perth, Western Australia. The need for collecting data from two separate locations was in consideration of the long travel distances, relief teaching expenses, and travel costs for a Beginning Teacher to travel to the city from a location in rural Western Australia.

The three instruments used to gather data about the mentoring experiences of the Beginning Teachers were two web-based survey questionnaires (Appendix K & L), six focus group sessions (Appendix M & N) and one non-web based paper Self-Reflection questionnaire (Appendix O). Information sheets were presented at the beginning of The Early
Career Teachers Program meetings and informed consent sought. The consent forms were signed before the beginning of data collection. The web-based surveys were completed in computer laboratories using computers or I-Pads. Participants were given access to the web-based survey by typing in a link that was provided on the Information sheet.

During meeting one, in the city in March 2013, survey and focus group instruments gathered data on the mentoring experiences of the beginning primary and secondary teachers from their term one experiences of teaching. For future meetings, in an attempt to enhance focus group interaction, it was decided to divide the focus groups according to their primary or secondary orientation. During meeting two, in the country in April 2013, the second web-based survey and focus group interview for Beginning Teachers was conducted. Details are provided in Table 3.4.

During meeting three, in the city in June 2013, and meeting 4 in the country in June 2013, a written self-reflection questionnaire (Appendix O) was administered to participants to determine whether perceptions of mentoring had changed by the end of term two. During meeting five, in the city in August 2013, and meeting six in the country in September 2013, the written self-reflection questionnaire (Appendix O) was also re-administered to participants. This questionnaire was designed for Beginning Teachers to reflect on their experiences of mentoring by the end of term three. The non-web based paper self-reflection questionnaire was anonymous with each participant being randomly assigned a city or country code by the researcher at the top of their survey document (Appendix O). This code was only known to the researcher and each participant. Interpretations from this non-web based paper self-reflection questionnaire are elaborated in the Findings chapter.

Debriefing for all six Beginning Teacher focus groups in March/April and August/September involved transcribing verbal protocols and engaging in member checking. Participants were also thanked for their involvement.
Risks and threats

It has been noted in the literature (Brink, 1993) that the greatest risks and threats to research come in the form of validity and reliability (for quantitative research) or credibility and confirmability respectively (for qualitative research), the latter being the preferred terms in the present research. Credibility and confirmability were enhanced through the parallel mixed methods analysis technique. This enabled the survey and focus group design using a quantitative and qualitative matrix to be converged. As Teddlie and Tashakkori (2009) proffered, “Parallel MM [mixed methods] designs permit researchers to triangulate results from the separate QUAN and QUAL components of their research, thereby allowing them to “confirm, cross-validate or corroborate findings within a single study” (Teddlie & Tashakkori, 2009, p. 187). Miles and Humberman (1984) and Burns (1995), termed this process triangulation which verifies, “the consistency of findings generated by different data-collection methods; and checking out the consistency of different data sources within the same method” (p. 273). Adopting triangulation methods in the present study helped safeguard against credibility and confirmability transgressions.

Morgan (1997) described how focus group interviews add to the creation of future creation of items. In place of trialling the survey, the first focus group (CUWA, Post-Internship{Pre-Service} teachers) played the added role of refining the survey on the basis of feedback. This group can be considered a quasi trial group as it was small in number and limited in scope in the sense that the bulk of future analysis was undertaken on graduate and principal data. Member checking was utilised to ensure the accuracy of data. As identified by Kasprzyk (2005), such a safeguard allows participant responses to be clarified by the researcher. Designing a semi-structured script for each focus group interview (H, J, M & N) also enabled the researcher to follow questions in a consistent order.
For the design of a web-based survey, Dillman, Tortora and Bowker (1999) identified four potential sources of error, namely, “Coverage error, sampling error, measurement error and nonresponse error” (p. 2). Coverage error was minimised through the author obtaining an updated list of all participants’ e-mail addresses as recommended by Lodico, Spaulding and Voegtle (2006). Sampling error in the distribution of surveys was lessened through purposive sampling in each phase of the study. Kasprzyk (2005) stated the importance of planning to reduce measurement error from occurring. During the design of surveys and focus groups, factors were recognised that may have affected the confirmability of the data. Such factors, which were considered in structuring the web-based instrument, relate to, “Test takers’ personal characteristics; variations in test setting; variations in the administration and scoring of the test; variation in participant responses due to guessing…” (Lodico, Spaulding & Voegtle, 2006, p. 89). Planning for Non-response error involved each survey being designed on an excel document before being exported to the Survey Monkey program (Appendix G, I, K & L). Arranging survey items this way ensured that appropriate protocols could be established in the Survey Monkey survey program settings prior to the distribution of the surveys. This also ensured participants with incomplete answers would be reminded of this fact prior to progressing to the next question.

Even though the researcher was responsible for gathering data via surveys and focus group interviews, care was taken to ensure that a dual and unequal relationship was avoided. At no time were any of the participants in the employ of the researcher. None of the participants had a direct relationship to the researcher and as such neither were they placed in a professionally or personally compromising situation. All information was collected on a voluntary basis and participants could withdraw from the research at any time.
Data Analysis Procedure

A separate analysis of QUAN (survey) + QUAL (focus group) data for each phase of the study was undertaken. The mixed methods analysis involved the identification of the descriptors from the literature and plotted the current qualitative and quantitative data against these. This was achieved by using a simple tick or cross to represent whether or not the descriptor was evident (Table 4.2; 4.3 in the following chapter). The focus groups’ and surveys’ ticks were then converged and an overall percentage of the achievement of that descriptor was identified (Table 4.4 in the following chapter). The results combined to inform mixed method analysis in order to answer the research questions.

Quantitative data analysis (survey questionnaire).

Descriptive statistical analysis was undertaken on the four web-based surveys and the one non-web-based survey. Data sets were analyzed using the Survey Monkey and Excel analytical tools and results are presented in the following chapter. The data for analysis consisted of survey data from Post-Internship (Pre-Service) teachers, Beginning Teachers and principals. Finally, the findings of the analysis of the converged quantitative and qualitative data were used to determine the common precepts necessary to assist the development of school-based mentoring framework for graduate and Beginning Teachers in Catholic schools. These findings are discussed in the following chapter.

Qualitative data analysis (focus group interviews).

The qualitative data collected for each of the focus groups undertaken in the study was digitally tape-recorded using the researcher’s iPad and iPhone. The researcher, using the Transcriva software program (Aleahmad, 2012) then transcribed the data. This program allowed for data to be typed onto a word document from the focus group recording as
recommended by Aleahmad (2012). The initial process of analysis as described by Smith and Osborn (2008) was adopted as a guide for transcription,

The transcript is read a number of times … It is important to read and reread the transcript closely in order to become as familiar as possible with the account…Some parts of the interview will be richer than others and so warrant more commentary. Some of the comments are attempts at summarizing or paraphrasing, some will be associations or connections that come to mind, and others maybe preliminary interpretations (p. 67).

As per the procedure advocated by Smith and Osborn (2008) and Saldaña (2012), the initial notes were used to interpret “meaning to each individual datum for later purposes of pattern detection, categorization, theory building, and other analytic processes” (Saldaña, 2012, p. 3). The overall aim was to identify descriptor themes that surfaced in the focus group data. Burns (1995) further stated: “Coding is not something one does to get data ready for analysis but something that drives ongoing data collection. It is in short a form of continuing analysis” (p. 290). In light of this understanding, repeated reference was made to the data to ensure that the data had been interpreted accurately. As indicated previously, in order to verify semantic accuracy, member checking was undertaken.

Driscoll, Appiah-Yeboah, Salib and Rupert (2007) stated that when analysing mixed methods data, “One of the more common strategies counts the number of times a qualitative code occurs. Some qualitative data analysis software programs (such as Atlas or NVivo) can generate these reports” (p. 22). For this particular study a mixed method software program called Dedoose (Leiber, 2009) was used to construct a matrix count. Dedoose allowed data to be entered and counted alongside the corresponding descriptor. The descriptors were those originally identified from the literature review. It was found that data from the focus group interviews conveniently matched the eighteen descriptors that had been identified from the literature. Had this not been the case, further descriptors would have been generated and
added to the matrix. The resulting matrix that was constructed is discussed as part of the
Findings for this study.

Limitations

As an exploratory study that utilized purposive sampling, it was not the intent of this
work to cater for aspects such as gender bias or sample size. Neither was it intended for
results to be generalized to different populations. The proposed framework presented in
chapter five may have applicability for systems outside of Catholic education, but such a
proposition would require further investigation.

Ethical considerations

Ethics approval was granted to access the participants for all three phases. This
consisted of gaining permission from: The CUWA (Appendix B); The Catholic Primary
Principals Association of Western Australia (Appendix C); and The Catholic Education
Office of Western Australia (Appendix D). The participants were provided an Information
Sheet (Appendix E) and an informed active consent form (Appendix F) to sign prior to
participating in the research. For on-line surveys, consent was requested on the opening page
of the survey and participants could not progress until consent had been established. These
were all in accordance with the ethical protocols set out by each of the three participating
stakeholders involved in each phase of this study. Participants were advised that they could
withdraw from the project at any time. No identifying information was used and the results
from the study will be made freely available to all participants. To protect the privacy of
participants, a code was ascribed to each of the participants to minimise the risk of
identification data collected will be stored securely in a locked cabinet for five years.
Chapter Summary

This chapter has presented the research design for the study. The epistemology was firstly expounded followed by the methodology, which was identified as mixed method and grounded theory. The various aspects of the method were then presented, which included the process of extracting theme descriptors; theoretical and conceptual frameworks; participant selection; risks and threats to the research; and data analysis procedures. The chapter concluded with a brief discussion of study limitations and ethics protocols.

The next chapter describes how Post-Internship (Pre-Service) teacher, Beginning Teacher, and principal data were interpreted, using an QUAN + QUAL which is then converged to enable mixed method analysis. Findings are then interpreted and used to inform the creation a mentoring framework.