

**School of Education**

**Primary Educators' Knowledge of Grammatical Concepts as Mandated  
in the Australian Curriculum (English): Comparison of Pre and In-  
Service Teachers**

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## Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Signature: 

Date: 24 November 2016

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Postgraduate study seems to bring with it life events unexpected and unhelpful. As such, it was only with continual and generous encouragement, humour and support from family, friends and colleagues that I was able to navigate my way through to completion. Thank you.

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## **Abstract**

This study, undertaken in Western Australia during a period in which the National Curriculum was developed and implemented in schools, investigates pre-service and in-service teacher knowledge of grammar. In particular, it seeks to identify how well teachers understand the grammar terminology derived from the National Curriculum: English (NCE) and the concepts tested annually in the National Assessment Program - Literacy and Numeracy (NAPLAN).

As a first step in this study, the literature describing historical and contextual factors influencing grammar pedagogy is explored, including an account of the enduring difficulty of finding an agreed upon definition of grammar. To further elaborate this, comparisons are made with other Anglophone countries, especially those in which governments have sought to improve standards in education through curriculum innovation and the introduction of testing regimes.

A mixed methods approach involving both quantitative and qualitative data collection and analysis was used in this study in three-phases. First, teacher perceptions of grammar and the NCE were quantified using a Likert scale. Second, teacher knowledge of grammar terminology contained in the NCE and concepts derived from NAPLAN were assessed using a questionnaire completed by 69 pre-service and 47 in-service teachers. Third, 6 pre-service and 6 in-service teachers were interviewed to discuss emergent issues and which allowed descriptions from teachers to better inform pre-service educational institutions on how to prepare beginner teachers with respect to grammar knowledge and pedagogy.

The findings suggest that both pre-service and in-service teachers lack knowledge of the grammar terminology used in the NCE and understanding of those concepts tested by NAPLAN. While pre-service and in-service teachers value grammar and share similar ideas on a functional and integrated pedagogical approach, they also share concerns over the increasing complexity of grammar terminology and concepts they are required to teach. The findings support previous research, and also provide direction on how to improve pre-service teacher education.

## Table of Contents

Declaration .....	ii
Acknowledgements .....	iii
Abstract .....	iv
Table of Contents .....	v
List of Tables.....	ix
List of Figures .....	xi
List of Appendices .....	xii
List of Acronyms and Abbreviations .....	xiii
<b>Chapter 1 .....</b>	<b>1</b>
1.1. Background to the Study .....	1
1.2. The Research Problem .....	3
1.3. Research Aims.....	7
<b>Chapter 2: Literature Review .....</b>	<b>8</b>
2.1. Background .....	8
2.2. Definitions of Grammar.....	9
2.3. Theories of Grammar and Pedagogy .....	13
2.4. How Grammar is Currently Taught .....	16
2.5. Grammar and the Australian Curriculum.....	18
2.6. Pedagogical Grammars and Pre-Service Education.....	24
2.7. Research Questions.....	30

<b>Chapter 3: Method</b> .....	<b>31</b>
3.1. Research Methodology.....	31
3.2. Participants and Ethical Issues .....	32
3.3. Materials.....	36
3.4. Procedure.....	39
3.4.1. Stage 1 Development of Grammar and NAPLAN Test Questions for the Questionnaire .....	39
3.4.2. Administration of the Questionnaire for Pre-service and In-service Teachers .....	44
3.4.3. Development of the Interview Protocol and Interviewing of Participants .....	46
3.5 Analysis.....	47
3.5.1. Stage One Analysis .....	47
3.5.2. Stage Two Analysis .....	48
3.6. Validity, Reliability and Trustworthiness .....	54
<b>Chapter 4: Findings</b> .....	<b>59</b>
4.1. Section One .....	59
4.1.1. The Value of Teaching Grammar .....	60
4.1.2. Beliefs and Understandings about Grammar and Confidence to Teach the National Curriculum.....	61
4.1.3. Summary .....	68
4.2. Section Two.....	69
4.2.1. Grammar Terminology Test Descriptive Statistics.....	69

4.2.2. NAPLAN Test Descriptive Statistics.....	74
4.2.3. Comparing Pre-service and In-service Teacher Grammar Terminology Test Scores .....	79
4.2.4. Comparing Pre-service and In-service Teacher NAPLAN Test Scores ..	80
4.2.5. Relationships Between Age and Years since University Graduation, Grammar Terminology Scores and NAPLAN Test Results .....	83
4.2.6. Comparing Languages other than English for Pre-service and In-service Teachers with Grammar Terminology and NAPLAN Test Scores .....	83
4.2.7. Comparing Gender for Pre-service and In-service Teachers with Grammar Terminology and NAPLAN Test Scores .....	85
4.2.8. Summary .....	86
4.3. Section Three.....	86
4.3.1. A National Standard and Teaching Grammar are Important .....	87
4.3.2. It is Beneficial for both First and Second Language Development to use a Common Grammar Terminology.....	88
4.3.3. Grammar Teaching should be an Explicit, Eclectic and Meaningful Pedagogical Approach .....	89
4.3.4. Perceived Failures of the National Curriculum: English to Adequately Support Grammar Teaching and Learning.....	92
4.3.5. Perceived External Interference with “Preferred” Grammar Pedagogy ..	94
4.3.6. Section Three Summary .....	96
4.4. Section Four .....	96
4.4.1. Pre-service Teacher Grammar Knowledge is Too Low.....	96

4.4.2. Pre-service and In-Service Teacher Perceptions of Pre-service Education and Grammar.....	99
4.4.3. Section Four Summary.....	103
<b>Chapter 5: Discussion and Conclusion.....</b>	<b>104</b>
5.1. Teachers Value Grammar and NCE Limitations .....	104
5.2. Pre-service and In-service Teacher Grammar Knowledge.....	109
5.3. Implications for Pre-service Education in Western Australia .....	112
5.4. Conclusion.....	114
<b>References .....</b>	<b>116</b>
<b>Appendices .....</b>	<b>138</b>

## List of Tables

Table 3.1.	Approximate Number of Enrolled 3 <sup>rd</sup> and 4 <sup>th</sup> Year Students in Bachelor Studies Related to Primary Years Education in 2013	33
Table 3.2.	The Demographic Information of the Interview Participants	35
Table 3.3.	Origins of Grammar Terminology Questions	37
Table 3.4.	Example of Line-by-Line Coding	49
Table 3.5.	Conceptualisations of Grammar – Open Coding Grouped into Categories	51
Table 3.6.	Example of Open Codes Grouped Providing a Statement (Axial Code) Leading to Theme	53
Table 4.1.	Description of Pre-service (N = 68) and In-service (N = 47) Teachers' Perceptions of the Value of Teaching Grammar	61
Table 4.2.	Description of Pre-service (N = 68) and In-service (N = 47) Teachers' Perceptions of their Competence to Teach Grammar in Accordance with the Australian NCE	63
Table 4.3.	<i>t</i> -test Showing Differences between Pre-service Teachers (N = 68) and In-service Teachers (N = 47) in their Perceptions on the Value of Teaching Grammar and on their Competence to Teach Grammar in Accordance with the National Curriculum	65

Table 4.4.	Correlations between Perceptions of the Value of Teaching Grammar and Teacher Competence to Teach Grammar (N = 115)	67
Table 4.5.	Description of Pre-service Teachers' (N = 68) and In-service Teachers' (N = 47) Scores on the Grammar Terminology Test	70
Table 4.6.	Percentage of Correct Responses for the Groups of Pre-service (N = 68) and In-service (N = 47) Teachers on Individual Grammar Terminology Test Questions	72
Table 4.7.	Description of Pre-service (N = 68) and In-service (N = 47) Teacher Scores on the NAPLAN Questions (Student Skills)	74
Table 4.8.	Percentage of Correct Responses for Pre-service and In-service Teachers on Individual NAPLAN Questions for Year 3 (N = 115)	76
Table 4.9.	Frequency of Correct Responses for Pre-service and In-service Teachers on Individual NAPLAN Questions for Year 5 (N = 115)	77
Table 4.10.	Frequency of Correct Responses for Pre-service and In-service Teachers on Individual NAPLAN Questions for Year 7 (N = 115)	78
Table 4.11.	Descriptive Summary of Mean Percentage Scores ( <i>t</i> -test group statistics) Separated According to Year 3, Year 5 and Year 7 NAPLAN Questions	81

## List of Figures

Figure 4.1.	Number of pre-service (N = 68) and in-service (N = 47) teachers achieving raw scores on Grammar Terminology test.	70
Figure 4.2.	Percentage of correct responses for pre-service (N = 68) and in-service (N = 47) teachers on individual grammar terminology questions.	73
Figure 4.3.	Number of pre-service (N = 68) and in-service (N = 47) teachers achieving raw scores on the selected NAPLAN test items.	75
Figure 4.4.	Pre-service and in-service mean percentage correct scores ( <i>t</i> -test group statistics) grouped according to Year 3, Year 5 and Year 7 questions.	82

## **List of Appendices**

Appendix 1	Information Sheet and Consent Form	138
Appendix 2	Example of Questionnaire	142
Appendix 3	Selection of Descriptions	163
Appendix 4	Interview Schedule	168

## **List of Acronyms and Abbreviations**

ACARA	Australian Curriculum, Assessment and Reporting Authority
ECE	Early Childhood Education
KAL	Knowledge About Language
LTC	Language Teacher Competence
NAPLAN	National Assessment Program Literacy and Numeracy
NCE	National Curriculum: English
PD	Professional Development
ScOT	Schools Online Thesaurus

## Chapter 1

This chapter provides an introduction to the current study. It describes the historical context for the development of the National Curriculum and the associated challenges of including grammar in these policy documents (1.1). These challenges include providing an agreed upon definition of grammar, differences in the conceptual and theoretical rationale for including grammar, variance in teacher knowledge, and the diversity of beliefs and approaches to teaching grammar, all of which are of pedagogical significance. This information may be used to inform pre-service teacher education. The chapter concludes with an outline of the research problem (1.2) and the research aims (1.3).

### 1.1. Background to the Study

The Melbourne Declaration on Educational Goals for Young Australians (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008) set out the direction for Australian schooling for the subsequent ten years and resulted in a process designed to develop an Australia-wide curriculum from Kindergarten to Year 12. The purpose of this first Australian National Curriculum was to set out the “core knowledge, understanding, skills and general capabilities important for all Australian students” (The Department for Education, 2011, p. 5). Integral to this centralised government-led policy was the aim of raising literacy standards (Masters & Forster, 1997; Watson, 2013). Consequentially, the development and introduction of the NCE included “Content Descriptions” and the “re-introduction” of explicit teaching of grammar in Australian schools. By 2014, all Western Australian schools were expected to teach the Australian Curriculum in English from Foundation to Year 10 and subsequent state school curriculum documents adhere to this framework.

This initiative reversed an approach that existed to the 1966 Dartmouth Conference and which, many believe, has resulted in Anglophone countries, including Australia, excluding explicit and formal grammar teaching from classroom practice (Myhill & Watson, 2014). Although some teachers may have continued to teach grammar in their classrooms in Australia, this was likely the exception rather than the rule.

Therefore, when the Labor Government (2007 – 2013) sought to re-introduce the explicit teaching of “grammar” this was highly politicised and fuelled what had been described as “grammar wars” (Kamler, 1995; Locke, 2005). Underpinning this debate were the perennial questions of how “grammar” is defined and if and how it should be taught.

This debate was evident throughout the consultation period, which occurred prior to the implementation of the NCE, with different perspectives on and submissions offered about the value of grammar for language learners and potential education benefits, if any, for students (Myhill & Watson, 2014). The issues raised were much more complex than a simple dichotomy of whether “To grammar or not to grammar?” (Weaver, McNally, & Moerman, 2001, p. 17), and perhaps for this reason, reaching complete agreement on the theoretical perspective and pedagogical rationale was not achieved (Fontich & Camps, 2014; Myhill & Watson, 2014).

While the issue remains vexed and there has never been a unified account or clear rationale for teaching grammar (Fontich & Camps, 2014; Hudson & Walmsley, 2005; Myhill & Watson, 2014), with the introduction of the NCE, what is not in contention is that teachers were required to present the “standard grammatical terminology” (Australian Curriculum, Assessment and Reporting Authority *formerly National Curriculum Board* (ACARA), 2010, p. 5) as outlined in the NCE “Content Descriptions” in Australian Primary Schools by 2014. This reality required schools and pre-service institutions to address two issues; namely, implementation and capacity.

Firstly, if the NCE is to achieve its objectives and provide students with core knowledge and understandings it must be accepted that teachers are “...ultimately the arbiters of how curricular policy is enacted in the classrooms” (Clark, 2010; Watson, 2013, p. 4). Therefore, in order for schools and pre-service institutions to address any potential gaps, there must also be recognition that teachers’ beliefs, perceptions and “conceptual uncertainty” (Cajkler & Hislam, 2002, p. 172), particularly in “contested areas” of the curriculum such as grammar (Watson, 2015, p. 333), can affect pedagogical practice (Poulson, Avramidis, Fox, Medwell & Wray, 2001) and, in turn, the implementation of policy.

The second issue concerns the capability of primary school pre-service and in-service teachers to teach the grammar components of NCE. Because of an absence of formal language in Australian schools over several decades (Myhill & Watson, 2014), it is unclear whether teachers have the requisite knowledge of grammatical terminology and concepts (i.e., the capacity) to teach grammar. A similar study conducted in Western Australia noted the literacy standards of teaching graduates in secondary schools was of perennial debate and conducted research indicating many undergraduates in Bachelor of Education courses lack personal literacy competence (Moon, 2014). Furthermore, in-service training on linguistic subject knowledge has been recommended by some researchers (e.g., Hudson & Walmsley, 2005; Kolln & Hancock, 2005; Myhill & Watson, 2014; Wales, 2009) to address the fact that teachers may potentially have little or no experience in learning it themselves (Gordon, 2005; Kolln & Hancock, 2005; Myhill & Watson, 2014).

The synthesis of these two issues raises further questions not only about teacher knowledge, but also of school and classroom environments: Do teachers have the knowledge of terminology used in the NCE to plan effectively? Are they able to demonstrate competency of the grammar concepts, such as those in NAPLAN tests, they are required to teach? Depending on the answers to these questions, the remaining concern becomes whether pre-service institutions are preparing university students appropriately for the rigours of teaching the grammar contained in the NCE to primary aged students.

## **1.2. The Research Problem**

The overall goal of this research is determine what is necessary in terms of pre-service teacher education regarding “grammar knowledge” and “grammar teaching”. To achieve this, the current study addresses three dimensions of the research problem:

The first dimension of the research problem concerns identifying teacher perceptions of the value of teaching grammar to students; how teachers have formed their beliefs and their conceptions of grammar; and, identifying preferred, effective pedagogical practices for teaching grammar. In order to do this, the first problem requiring investigation is to discover what grammar content is evident in the NCE. Central to

this issue is determining, if possible, an agreed definition of “grammar” and “grammar teaching” between academics, teachers and the wider community. However, the challenge of agreeing to a definition of grammar is evident in professional literature (Myhill & Watson, 2014) and complicated by what Halliday (1978) termed “social semiotics”; namely that language cannot be separated from society. Research has also suggested that conflicting social forces, oppression and marginalisation including race, ethnicity and privilege are the genesis of the grammar debate (Dunn & Lindblom, 2003; Zebroski, 1994).

It is because of this that some assert “grammar” has become one of many fronts for a wider ideological battle between supporters of an “economic imperative perspective” and those subscribing to a “critical resistant perspective” (Wang, Spalding, Odell & Klecka, 2011, p.115). The “economic imperative perspective” purports that teachers must be held responsible for equipping a nation’s future workforce with specialised knowledge and be held accountable for continually “raising standards” (Cameron, 1994; Pullman, 2005; Watson; 2013). The consequence of this in Anglophone countries, including Australia, is that educational systems have had to respond to “literacy drives” (Masters & Forster, 1997; Watson, 2013). In turn, these have been fuelled by government rhetoric and sections of the media demanding a “back to basics” approach to language teaching (e.g., Donnelly, 2008; Elliott, 2014). Increasingly, in the Australian context, the tension between “public and political discourses” represents grammar as a tool for maintaining these “standards” (Cameron, 1994; Pullman, 2005; Watson, 2015, p. 332). Consequently, the debates about grammar have resulted, some assert, in the definition of “grammar” being potentially oversimplified, pressuring teachers “to teach handbook rules in traditional fashion to address the ‘quick fix’ requirements of pundits and politicians and increasingly more urgent standardized exams” (Dunn & Lindblom, 2003, p. 43).

The development of the NCE includes the reinstatement of grammar and the “resurgence of the explicit study of language in English curricula” (Jones & Chen, 2012, p. 148) that ended many decades in which “grammar” was often absent from the pedagogy used in state schools (Hudson & Walmsley, 2005; Jones & Chen, 2012). However, the reality of preparing a consistent, national metalanguage drawn from competing grammar taxonomies has proved challenging. In part, because of a national landscape where the political context surrounding education is often over-

simplified and debate limited to a call for “back to basics”. Academic disagreement also continues and the terms “grammar” and “grammar teaching” remain difficult to define (Myhill & Watson, 2014).

Therefore, one of the current research aims is to provide pre-service educational institutions with a clearer understanding of Western Australian teacher conceptions of grammar and to what extent they perceive there is value in teaching grammar to students. It attempts to explore how pre-service and in-service teachers have formed their beliefs about grammar, while providing contextual understanding of external factors that may influence what Western Australian teachers believe are effective pedagogical practices and whether or to what extent these practices are actualised for students in Western Australian classrooms.

The second dimension of the research problem relates to teacher knowledge about grammar terminology and concepts used in the NCE. With the absence of formal grammar in Australian schools over several decades, many current and future teachers may be “unaware or misinformed about the elements of language that they are expected to explicitly teach” (Moats, 2009, p. 387). The varying types of metalinguistic language and differing pedagogical approaches that have emerged further complicate this issue. Therefore, while dispute remains over which approach to grammar teaching should be used, there has been a sustained call by many researchers to review pre-service education and to improve linguistic subject knowledge (Hudson & Walmsley, 2005; Kolln & Hancock, 2005; Watson, 2015, p. 343). What factors may influence this are also explored in the current research through an examination of key demographics that influence teachers’ understanding of grammar terminology and concepts. This is done by ascertaining pre-service and in-service teachers’ beliefs and perceptions about these issues.

Finally, in most Anglophone countries there is a “lack of a coherent theoretical underpinning for the place of grammar in the curriculum” (Watson, 2015, p. 334). However, in Australia, ACARA asserted that grammar should be taught K-12 as part of a “toolkit” for learners and that the goal of teaching grammar “should go beyond students labeling various grammatical categories” (ACARA, 2008, p. 6). Instead, the goal of teaching grammar in English is to equip students with knowledge about language as “a resource for effective reading, listening, viewing, writing, speaking

and designing” (ACARA, 2008, p. 6). More recently, the Western Australian Curriculum, which is to be fully implemented by 2018, has as its rationale the notion that literacy is concerned with constructing meaning in different social and cultural contexts, articulating the “intrinsic and interdependent relationship between social context, meaning and language” (School Curriculum and Standards Authority, 2014). However, this may underestimate the impact of already held teacher beliefs and the important role they play in “contested domains” of curricula (Borg & Burns, 2008; Nespor, 1987; Watson, 2015, p. 343). At the same time, pre-service institutions have a responsibility to prepare beginner teachers for teaching a national and state curriculum that contains explicit grammar terminology and concepts. Therefore, this research seeks to examine teachers’ perceptions not only about the theoretical constructs surrounding grammar teaching, but how they approach it in a school system where they are required to prepare students for national testing in a standards-focused environment.

Together these issues need further investigation, not only for the pedagogical implications they entail at a general level, but also because the findings can be used specifically to inform and improve pre-service teacher education. Therefore, this study seeks to discover: what knowledge pre-service and in-service teachers have of grammar terminology; their ability to apply primary school grammar concepts; and, the beliefs teachers hold about grammar pedagogy. By collecting data in order to identify similarities or differences between pre-service and in-service teacher knowledge and beliefs, tertiary institutions will be well placed to ascertain whether there is a need to adjust their programs to improve the quality of teachers entering into classrooms. A summary of these aims is presented below.

### **1.3. Research Aims**

This study aims to identify similarities and differences between pre-service and in-service teacher perceptions, their knowledge and understanding of grammar terminology and grammar concepts, which is used to provide feedback to inform the development of teacher education programs.

Specifically, this study aims to discover:

1. To what extent pre-service and in-service teachers value the teaching of grammar; how they have formed their beliefs and conceptions of grammar; and what they believe are effective pedagogical practices for teaching grammar.
2. To what extent pre-service and in-service teachers differ in the knowledge of grammar terminology as defined by the NCE.
3. To what extent pre-service and in-service teachers differ in their ability to apply primary school grammar concepts derived from NAPLAN language conventions tests, and then to examine the impact of demographic features (age and years since university graduation; comparing participants with proficiency in languages other than English, and gender) on these results.
4. To what extent pre-service and in-service teachers perceive pre-service institutions are adequately preparing teachers for grammar teaching, and if there are recommendations that can be made to inform the development of these teacher education programs.

## **Chapter 2: Literature Review**

As outlined in the previous chapter, the aim of this study is to identify similarities and differences between pre-service and in-service teacher perceptions of the value of teaching grammar and their preferred pedagogical practices; their knowledge of grammar terminology and NAPLAN concepts; and, to provide pre-service and in-service teachers with the opportunity to discuss how pre-service education institutions can better prepare beginner teachers for the rigours of teaching grammar in Western Australian primary schools. Therefore, the following Literature Review explores a range of issues related to these aims, including description of the complexity of determining a definition for grammar and grammar teaching (2.1), a detailed discussion about the definitions of grammar (2.2), and an outline of theories pertaining to grammar and pedagogy (2.3). It also explores research on how grammar is taught in different countries as well as in Australia (2.4). Next, contextual information is provided that explores the focus and inclusion of grammar in the National Curriculum (2.5). Finally, pedagogical grammar and how it relates to pre-service education is explained including how established beliefs can influence the effectiveness of pre-service education related to grammar pedagogy (2.6). The chapter concludes by providing the context for the research questions (2.7).

### **2.1. Background**

The terms “grammar” and “grammar teaching” are complex and difficult to define (Myhill & Watson, 2014, pp. 49 - 50) and to “talk of grammar in the singular is to deny the diversity of approaches evident in the field” (Australian Association for the Teaching of English Council (AATE), 2009, p. 9). Kolln (1996) illustrates the “vast number of potential referents” with respect to the term “grammar”, namely whether individuals are referring to sentence combining, or traditional, Latin-based grammar, and prescriptive “school grammar”, including punctuation and spelling (p. 26). All of which reflects the large body of professional and ideological literature concerning the definitions of grammar (historically and semantically), teachers’ emotional responses to these issues and the arguments about whether to teach grammar or not, and if so, how, and if this then leads to an improvement in student writing (Barzarolo, 2010; Beers, 2001; Braddock, Lloyd-Jones, & Schoer (1963); Hillocks,

1984; Hudson & Walmsley, 2005; Jones & Chen, 2012; Jones, Myhill & Bailey, 2013; Kolln, 2006; Macken-Horarik, Love & Unsworth, 2011; Micciche 2004; Moats, 2009; Myhill, 2005; Myhill, Jones, Lines & Watson, 2012; Schiff, 2004; Schleppegrell, 2007; Shulman, 1987; Smoot, 2001; Wales, 2009; Watson, 2012; Weaver, McNally & Moerman, 2001; Wyse, 2001).

In Anglophone countries, how grammar is defined or conceptualised is a particularly contentious issue. Myhill and Watson (2014) echo Vavra (1996) noting that only a small number of studies in the USA (Petruzella, 1996) and the UK (Cajkler & Hislam, 2002) have explored “how teachers define or conceptualize grammar” (Myhill & Watson, 2014, p. 49). Additionally, Pomphrey and Moger (1999) and Watson (2012), report a “tension or inconsistency between prescriptive / descriptive and prescriptive / rhetorical conceptualizations of grammar teaching” (Myhill & Watson, 2014, p. 49). Further, there are not only tensions, as indicated above, but also “difference(s) between prescriptive, descriptive, and pedagogical grammars” (Rothman, 2010, p. 53). Underpinning all of this is the fluidity of grammar and the reality that it can change depending on what is deemed “most socially acceptable at a given time” (Allen, 2008, p.310). All of these dimensions provide challenges for policy-makers, curriculum writers, teachers and students.

## **2.2. Definitions of Grammar**

For many, the most familiar conceptualisation of grammar is a prescriptive model in which usage is either correct or incorrect. However, this is a grammar in which teachers can be deemed to be correcting “linguistic disadvantage” (Myhill & Watson, 2014, p. 45) and tends to belong to those outside education and serves only to “highlight the cultural hegemony of this stance and its lack of understanding of language variation and the descriptive grammar advocated by modern linguistics” (Myhill & Watson, 2014, p. 45). Kolln (1996) refers to prescriptive grammar as “the unmodified grammar” about which people complain and this occurs because “grammar isn’t taught anymore” (p. 26). Thus, they are referring to “linguistic etiquette as well as traditional grammar rules” and to more obvious deviations of standard usage, such as may occur with spelling (Kolln, 1996, p. 26). In fact, some suggest that the term grammar is so frequently misunderstood in this way, that it

should be barred from discussions altogether because the breadth of conceptions and misconceptions can be a distraction from the “more significant discussion about writing, access, and improving the world” (Dunn & Lindblom, 2003, p. 43).

Despite these concerns, Schiff (2004) suggests that a less prescriptive definition of grammar can become a positive, task-specific aid to language arts instruction, encouraging such things as cultural and consumer awareness by application of grammar knowledge, and by exploring grammar usage in technological contexts, which in turn may enhance literacy appreciation. Grammar, defined in this manner, explores ideas such as “language in use”, in spoken and written texts, as well as the capacity to “throw light on the structure of almost any kind of text” (Hudson & Walmsley, 2005, p. 611). Arguably, given the way changes in technology have influenced communication, it is potentially a useful framework for students to be able to discuss “contemporary multimodal and cross-cultural texts” (Exley & Mills, 2012, p. 1). Also, in developing the concept of a “tool” or a useful “framework”, Myhill, Lines and Watson (2011) defined the idea of contextualised grammar as comprising of three principles which together have the goal to “open up a repertoire of possibilities, not to teach about ‘correct’ ways of writing” (p. 2) and to do so by using examples and patterns. Broadening the definition of grammar usage in this way can also provide opportunities to enhance thinking skills as “Grammar is, if nothing else, an organizing system for understanding the use of language to express varied information and concepts” (Schiff, 2004, p. 5).

Furthermore, in an attempt to avoid the traditional prescriptive notion of grammar, different terminology such as “knowledge about language” (KAL) has been introduced as it “implies a more liberal, learner-centered perspective” and carries with it more positive associations (Myhill, 2005, p. 78). In the USA, for instance, the terminology of “rhetorical grammar” is similarly seen as a tool that provides students with the resources of language, so that they are empowered to make conscious choices (Dawkins, 1995; Hancock, 2009; Myhill & Watson, 2014; Petit, 2003). In Australia, Systemic Functional Linguistics (SFL) is also well defined and supports an alternative option to the prescriptive notion of grammar (Christie & Derewianka, 2008; Christie & Unsworth, 2006; Halliday, 1993, 1994, 2003; Hasan, 2002). SFL is “essentially a meaning-oriented theorization of grammar...and is concerned with

how language works or functions” (Myhill & Watson, 2014, p 45.) This approach also sees grammar as a resource and KAL that is embedded in meaning. Thus:

Systemic Functional Linguistics and rhetorical approaches to grammar share a common focus on developing understanding about how language works, rather than simply regarding grammar as a body of knowledge that describes, or prescribes, the system of language. Theoretically, the knowledge that these approaches foster is metalinguistic knowledge. (Myhill & Watson, 2014, p. 46)

Therefore, while different terminology is used, they all share commonalities in approach (which is explored in greater detail later in this Literature Review).

Linguistics and Applied Linguistics both utilise theoretical grammars (Allen & Widdowson, 1975; Burner, 2005). These can include traditional, taxonomic, phrase structure, transformational, and case grammar. Linguistics is concerned with the description of language of which grammar is one part. There is also a difference when grammar is used within the field of Applied Linguistics. Here it is identified and used for practical application, but still for research purposes (Burner, 2005). Grammar concerned with presenting grammar to learners is known as pedagogical grammar. Myhill and Watson (2014) suggest the historical division between linguistics and educational grammar can be bridged by a more descriptive approach, influenced by socio-linguistics. As stated previously, the most well known in Australia is Halliday’s SFL, which focuses on meaning-making and the interrelationship of form and meaning.

The use of terminology such as metalinguistic knowledge and development is relevant to this study in that it can include stages or phases from implicit to explicit knowledge (Gombert, 1992; Myhill & Watson, 2014; see also Culioli, 1990; Karmiloff-Smith, Grant, Sims, Jones & Cuckle, 1996; and, van Lier, 1998). That is, how grammar is defined can shift focus from the provision of a language experience for students who, as first language speakers, understand grammar implicitly and so do not need formal grammar (Elbow, 1981), to more explicit grammatical knowledge providing students with a repertoire of knowledge and skills that empowers conscious choice over language use (Carter, 1990; Myhill & Watson, 2014). Thus, the definition and conceptualisations of grammar remain complex.

Further, there is evidence that grammar teaching does not necessarily lead to improvement in literacy skills, particularly when “traditional grammar [is] taught in traditional ways” it does not improve students’ writing (Derewianka, 2012, p. 139; see also Braddock, Lloyd-Jones & Schoer, 1963; Hillocks, 1986). However, in contrast, supporters of functional grammar assert concepts and terminology have shown the capacity to improve student literacy (Derewianka, 2012; Folkeryd, 2006; Schleppegrell, Achugar & Oteiza, 2004; Williams, 2005). Thus, debate continues on whether moving away from isolated grammar instruction to contextualised grammar teaching may be more useful (Hudson, 2001; Rimmer, 2008; Watson, 2015) and/or whether rhetorical approaches should be implemented for “shaping meaning” (Watson, 2015, p. 333; Kolln, 2006; Myhill et al., 2012). This debate is also likely to shape the way teachers perceive grammar and, as a consequence, how it is used in classrooms. For example, Dunn and Lindblom (2003) suggest “there are many effective writing teachers who understand that grammar is a tool for making meaning and not an end in itself” (p. 43).

To address these challenges, and in spite of the difficulty of finding an agreed upon definition of “grammar”, the NCE has attempted to provide a description of metalanguage for teachers through the Language Strand. Critics might argue that a standardised approach could lead to prescriptive methods to enforce a “discriminatory power system” (Dunn & Lindblom, 2003, p. 44). However, a shared and consistent definition, including a standardised metalanguage, may enable a rich learning dialogue between teachers and students. It is based, in part, on the premise that there is “robust evidence of a positive relationship between grammar and writing” when grammar is treated as a “meaning-making resource” (Jones, Myhill & Bailey, 2013, p. 1258). To do this, teachers use their explicit grammar (KAL) or as Thornbury (1997) identified, teacher language awareness, which is the “knowledge that teachers have of underlying systems of the language that enables them to teach effectively” (p. X) to support their students’ learning (Andrews, 1999; Andrews & McNeill 2005; Bartels, 2002; Borg, 1999b; Cots & Arnó, 2005; Thomas, 1987; Thornbury, 1997).

However, given the absence of explicit grammar teaching over so many years, the very practical question remains as to whether beginner and experienced teachers in Western Australia have the requisite KAL to effectively teach the grammar that is

mandated by the NCE and, concomitant to this, whether pre-service institutions need to do more to better prepare beginner teachers. On this basis, the current study aims not to assess a specific and theorised grammar metalanguage and pedagogy, but rather to determine the level of teacher knowledge (both in-service and pre-service) of grammar terminology derived from the NCE and the application of concepts from the Language Conventions found in NAPLAN testing.

Therefore, for the purposes of this study, the definition of grammar that has been adopted is that found in the NCE glossary (Version 8.2):

Grammar: A description of a language as a system. In describing a language, attention is paid to both structure (form) and meaning (function) at the level of a word, a sentence and a text.

This is the definition that primary teachers are mandated to use when programming and assessing student learning. (Also see the method section (p. 32), which explains in detail the procedure for how and why particular descriptions from the NCE were included in this research).

### **2.3. Theories of Grammar and Pedagogy**

Pedagogical grammar is the focus of this study and is explored in greater detail below, particularly in relation to the National Curriculum. In Australia, as in most English speaking countries, not only has grammar teaching been hindered because of the lack of a clear understanding of the term grammar, it has also been a vexed issue in both academia and schools. Further, there has never been a unified account. In fact, the lack of clarity surrounding grammar was evident as early as the Newbolt Report in 1921 which juggled “several different kinds of grammar at the same time – the grammar of English, traditional Latinate grammar, the grammar of form and the grammar of function, historical grammar, and ‘pure’ grammar” (Hudson & Walmsley, 2005, p. 615). According to Hudson and Walmsley (2005), from the 1930s to the 1970s, “an informed understanding of language and an appropriate metalanguage to discuss it in were systematically eradicated from the state school system” (p. 606).

According to some, the reason for the historical eradication of “grammar” teaching was in part due to the development of English Literature as a subject in its own right

because “in order to establish itself as a worthy discipline at university level, English Literature felt that it needed to free itself from the shackles of “philology” (Hudson & Walmsley, 2005, p. 602). However, in the USA, Kolln (1996) blames the demise of grammar and the demise of the “lively, open discussion of grammar and linguistics” (Kolln, 1996, p. 27) upon the inclusion of the phrase “harmful effect” written in the NCTE Report by Richard Braddock, Richard Lloyd-Jones, and Lowell Schoer (1963):

The teaching of formal grammar has a negligible or, because it usually displaces some instruction and practice in composition, even a harmful effect on the improvement of writing. (p. 37–38)

By the 1980s, inspired by Graves (1983), academics focused on process writing and whole language techniques that were subsequently widely implemented in Australian primary schools. Teachers’ roles during this period, especially in the writing stream of the subject “English”, shifted to that of a facilitator (Rothery, 1996). As a result, students’ experience of writing became narrower and based on their own experiences. Yet it was also found that this approach to writing was too limiting for “learning across the curriculum” in secondary school (Martin, 2009, p. 11).

Consequently, in the 1990s, relationships between school disciplines and workplace literacies generated a genre led approach to teaching writing. With a focus on reading (Martin, 2009, p. 11), initiatives such as Rose’s *Learning to Read / Reading to Learn* followed (Rose, 2004, 2005, 2006, 2007), and this contributed further to the development of the genre writing approach (Martin, 2009). During this period, while whole text structures remained a focus for teachers, explicit grammar teaching was neither a teaching nor learning priority for many educators.

Once grammar teaching was no longer a focus, it became subjugated, forgotten or lost as teachers worked to provide children with learning experiences across an expanding curriculum. As a result, it is not surprising that gaps and inconsistencies in teacher knowledge of grammar terminology and concepts appeared. For example, studies have shown how teachers associate grammar with phonics, spelling and punctuation (Cajkler & Hislam, 2002; Myhill & Watson, 2013; Petruzella, 1996; Pomphrey & Moger, 1999; Watson, 2012).

Nevertheless, the rationale for the NCE indicates that concepts in the Language Strand were “drawn largely from historical and linguistic accounts of the English

language” (ACARA, 2011, p. 4) which, considering the complexity surrounding reaching agreement on grammar and grammar teaching, can be described as nothing short of ambitious. For example, as mentioned previously, grammar related to language teaching, which uses prescriptive and pedagogical grammars, is different from that used in the field of Linguistics. Whereas pedagogical grammar is that adopted for the purposes of teaching, in Linguistics the focus is on the scientific study of language using standard scientific methodology:

It endeavours to descriptively account for, in an explanatorily adequate manner, the properties of all possible languages, which includes microdescriptions of properties in particular languages. (Rothman, 2010, p. 53)

Exley and Mills (2012) conclude that the NCE “draws upon the complementary tenets of traditional Latin-based grammar and systemic functional linguistics” and that “such an approach is necessary” (p. 1). However, given the clear theoretical differences, whether a blended approach to grammar in the NCE is helpful or not remains unclear. Whether this integrated grammar is well understood by pre-service and in-service teachers underpins the aims of this study. It also examines whether “further conceptual clarification of the meanings of and relationships between” differences in grammar terminology might be required from the research community to better support teachers and policy-makers (Watson, 2015, p. 12).

Meanwhile, debate continues as to whether grammar teaching does or does not support students in learning to communicate by “developing facility with language” (Watson, 2015 p. 333; Kolln, 2006; Micciche 2004; Myhill et al., 2012; Wyse, 2001). It has been asserted that this has, in part, been due to a lack of “critical theorisation of how grammar might support the development of writing” (Myhill, 2005, p. 77), which has exacerbated arguments surrounding the potential benefits (or otherwise) of different pedagogical practices and also whether (and in what ways) it does or does not affect student literacy learning. With the introduction of NCE in Australia and elsewhere, a narrow prescriptive definition of “grammar has become inextricably intertwined with notions of correctness and standards” (Myhill et al., 2011, p. 1). In many ways, these are also reflected in teacher beliefs, which have fluctuated over time (e.g., resulting in its demise during the 1960s). Therefore, grammar teaching has been and remains contentious with provocations around the question of grammar being raised by the English Association as early as 1923, the

Newbolt Report in 1921 and the description of the demise of grammar described in the 1960s (Hudson & Walmsley, 2005, p. 600).

#### **2.4. How Grammar is Currently Taught**

In non-English speaking countries “In both Europe and Asia, the teaching of grammar as part of first language teaching is largely regarded as the norm” (Myhill & Watson, 2014, p. 43). In these contexts, it is often taught traditionally using top-down teacher directed grammar instruction, often done in isolation. It focuses on prescribed rules and, therefore, language, particularly written language, is either correct or incorrect. Such an approach aligns neatly with a standards-based approach to education.

As previously stated, countries such as the USA, England and Australia have in recent times moved towards a standards-based approach to education and so it is not surprising that traditional grammar has been re-introduced. This is because traditional grammar, according to public perception and to some teachers and educational policy-makers, is a discrete subject that can be tested and these standards can then be applied to both teaching and to assessing language, particularly writing. This is in spite of research, such as Hillocks (1986), which “highlighted the idea that teaching grammar and grammatical structures does not enhance writing proficiency” (Fearn & Farnan, 2007, p. 64). On this basis, critics of teaching traditional grammar in isolation, such as Myhill and Watson (2014), argue that the pedagogical rationale for teaching grammar in the USA and England lacks clarity. As they caution: “At policy level, the reasons for maintaining or re-introducing grammar appear to be neither evidence based, nor clearly articulated” (p. 44). More precisely, Watson (2010) articulates the concerns that policy-makers may have ignored “the evidence of a huge body of research” and failed to recognise “the complexity of the language that children bring to school” and in doing so perpetuated the view of grammar as rules and terminology embedded in “drill” (p. 36).

Canada is an example of a country that uses an alternative methodology. Specifically, they use an inductive approach in which students explore language through participation, observation and reflection. In this situation, using a shared metalanguage has substituted for traditional grammar teaching in isolation (Myhill &

Watson, 2014; Poulin, 1980). Using this approach, Canadian students are encouraged to actively explore language use, and to deduce grammar from language use in context.

In the USA, although there is no nationally mandated curriculum, standards are driven through Common Core Standards in most states (CCSSI, 2016). There are three Language Anchor Standards, two of which “relate to accuracy and avoidance of error” (Myhill & Watson, 2014) and the third is meaning orientated. Thus, the USA, while suggesting the importance of contextualising grammar, appears to use a predominantly prescribed approach. Because of the first two anchors, grammar can be taught in isolation, with the application of this knowledge used by students mostly in their written language.

England has also adopted a standards-based approach to education that lends itself to a prescriptive approach to grammar, but with aims of a contextualised approach. This occurred for a number of reasons, including in response to a series of reports (See ‘The Bullock Report; 1984, 1988, 1989; also for a summary see Carter, 1994) that recommended, “similar to the definition given in the Cox Report of 1989” (Hudson & Walmsley, 2005, p. 610) that English teaching:

Should include explicit teaching about grammar, but they also agreed that the teaching should be different from the traditional grammar-teaching that had died out by 1960...The most important feature of this definition is the absence of the word error; the grammar was to be descriptive, not prescriptive. (Hudson & Walmsley, 2005, p. 610-11)

Subsequently, the National Literacy Strategy was introduced in 1998 and part of this included the provision of teaching resource materials for grammar (e.g., “Grammar for Reading” and “Grammar for Writing”). These materials have been designed in such a way that they “explicitly addressed grammar and in a manner that was clearly attempting to be contextualized” (Myhill & Watson, 2014, p 43). However, as teachers are permitted to choose how the content is delivered, there is a tendency to draw upon specific grammatical concepts and to teach in a decontextualised manner.

More recently, the new National Curriculum for England outlines what is essentially a year-by-year scope and sequence syllabus for teaching grammar, which is integrated with teaching. Unfortunately, it is also accompanied by student “high-stakes assessment” (Myhill & Watson, 2014, p. 43). The incongruity between these

elements results in grammar lessons taking place during English or writing lessons, once again in a decontextualised way. Specifically, because of the pressure for students to achieve good results in these high-stakes assessments, teaching has been corralled into isolated, prescriptive grammar (Myhill, 2004, 2006; Myhill & Watson, 2014; Wyse, 2006), now known as “SPaG” lessons (Spelling, Punctuation and Grammar). Therefore, the pedagogical rationale in England has been criticised because of its lack of emphasis on the relationship between grammar and meaning, and because of the lack of evidence for why such an approach should be re-introduced into the National Curriculum. It is further complicated by “teachers’ lack of explicit grammatical knowledge” (Wales, 2009, p. 524). Not surprisingly it has been recommended that training in the area of grammar be prioritised, especially in the case of pre-service training.

In Australia, it has been asserted, “research and teaching on English grammar have gone from strength to strength” (Hudson & Walmsley, 2005, p. 607) and the re-introduction of grammar teaching into the Australian National Curriculum has led to considerable discussion in the political arena, the media and in education. This is described in detail next.

## **2.5. Grammar and the Australian Curriculum**

The lack of a “cogent rationale” on how grammar can improve writing and literacy has resulted in an “ideological-driven” debate that “tend(s) to reveal more about the proponent’s stance than about the issue itself” (Myhill, 2005, p. 79). In Australia, as in other Anglophone countries, the “standards issue was politically motivated” with education being viewed as a “valued economic commodity”, one that resulted in globalisation and “mediatisation” of policy (Chen & Derewianka, 2009, p. 231).

Neoliberal political ideology gathered momentum in the 1980s and provided the impetus for both Coalition and Labor governments in Australia to successively shift the focus of educational policy towards the national standardisation of education. This culminated in reports such as the Department of Education, Science and Training (2005) “Benchmarking Australian Primary School Curricula Project”, Australian Council for Educational Research (ACER) (Masters, 2006), “Australian Certificate of Education: Exploring a Way Forward” and the ACER (Matters &

Masters, 2007) “Year 12 Curriculum Content and Achievement Standards Report.” They recommended developing Australia-wide syllabus documents, a national subject panel responsible for identifying essential curriculum content in a given subject, so that all students should be expected to learn specific content within particular subjects and the development of national achievement standards. Consequentially, the Deputy Prime Minister and Minister for Education, as well as all state Ministers of Education signed the “Melbourne Declaration on Educational Goals for Young Australians” (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008), which set the direction for Australian schooling for the next ten years, including the implementation of the National Curriculum (which, relevant to the current study, specifically included NCE).

By 2009, ACARA released key foundational documents including “The Shape of the Australian Curriculum: English” (May 2009a) and the “Framing Paper Consultation Report: English” (May 2009b). The Framing Paper noted, “very strong support... (and)... applauded the focus on teaching grammar in use and context” (p. 6). It also explained that, “...respondents endorsed the embedding of ‘basics’ in authentic language, literary and literacy tasks rather than reducing English to a ‘back to basics’ approach” (p. 6). However, in Section 4.5 of the Framing Paper “Feedback requiring further examination: The teaching of grammar in English” the challenge of deciding which kind of grammar should be mandated in the curriculum was raised:

One extensive submission argued that a functional approach is an appropriate model of language for the curriculum; another submission argued that a blend of traditional and functional grammar would be suitable and another argued in favour of traditional grammar on the grounds that this would lessen the demand for professional development because of the likelihood that more teachers would be familiar with this type of grammar. (ACARA, 2009b, p. 7)

Therefore, the first challenge for creators of the NCE was reconciling the general agreement from educators that grammar in use should be taught, but doing so without moving towards a “back to basic” approach. Unfortunately, the debate was not the sole domain of education and the discussion on how grammar should be taught was often shaped by politicians in the media. For example, the release of the Australian Curriculum for National Consultation on 1 March 2010 saw both Prime Minister Rudd and Deputy Prime Minister / Education Minister Julia Gillard, refer to the importance of a “back to basics” approach to education, while speaking at a press conference for the launch at Amaroo School:

When it comes to teaching the basics, let me be very frank: what we need to make sure is our kids know how to sound out letters, that they know grammar, that they know punctuation... these elements must be part of the basic knowledge in the school education of all Australian kids, and that's why we are proud to launch this national curriculum document today. (Interview with Deputy Prime Minister Julia Gillard, 1 March 2010, <http://australianpolitics.com/2010/03/01/rudd-gillard-national-curriculum.html>)

During an interview “Gillard on the Education Revolution” on “The 7:30 Report” (Australian Broadcasting Corporation, 2010) with Kerry O’Brien, the reporter highlighted this use of political rhetoric:

Kerry O’Brien: You as minister you know that it’s much more than basics, but is that what you think will resonate most with parents, will have the most political appeal: back-to-basics?

Julia Gillard: Kerry, this is basics and beyond. I think the Prime Minister is using the description basics because this is returning to some traditional styles, some traditional curriculum content that has been lost in the last few years in education. (<http://www.abc.net.au/7.30/content/2010/s2833597.htm>)

The framing of the national curriculum as “back-to-basics” and a “traditional” style of curriculum content generated a lot of media attention and influenced discussion on writing standards of Australian students and particularly the teaching of “traditional” grammar. Watson (2010) describes the roots of this “obsession with grammar” (p. 31) and the need for children to have an “explicit knowledge of a grammatical system” (p. 31), as occurring due to a misunderstanding of the richness of early Latin and even ancient Greek literature. Watson (2010) therefore, bemoans the “depressingly illustrated” (p. 31) columns such as *The Australian Newspaper*, which openly supported this “traditional” view:

For years, groups such as the Australian Association for the Teaching of English have turned their backs on teaching formal grammar and literature.

While *The Australian* has led the campaign for a back-to-basics approach to English, as a result of falling standards and a dumbed-down curriculum, the AATE and the Australian Curriculum Studies Association have argued that talk of a crisis is a media beat-up... it appears that those in charge of developing the nation’s curriculum have sided with the critics. Teaching grammar, punctuation and spelling is back on the agenda. (Donnelly, 2008)

In a political climate in which knowledge production is favoured and where enquiry that is “isolated from contamination by contextual considerations and reduced as far as possible to its most simple elements” is supported, it is not surprising that

grammar hit the headlines (Chen & Derewianka, 2011, p. 235). However, politicians and the media overlooked the call from policy-makers that prescriptive teaching of grammar does not lead to better writing (Baron, 2003) and that the word grammar has more than one referent (Kolln, 1996). Nevertheless, while this political and media driven public debate continued, ACARA tackled the second challenge of deciding how grammar should be defined within an Australian Standard English Framework and specifically what grammar would be included in the NCE. In Section 4 of the “Shape of the Australian Curriculum: English” (Key Terms) grammar was defined as follows:

Grammar refers both to the language we use and the description of language as a system. In describing language, attention is paid to both structure (syntax) and meaning (semantics) at the level of the word, the sentence and the text. (ACARA, May 2009a, p.5)

In “The Shape of the Australian Curriculum: English” (2009a), the structure of the English Curriculum was outlined and in Section 5 of this document the distinctive goals of each strand were explained. In Section 5.2 the teaching of grammar is provided in the “Language: Knowing about the English Language Strand” (ACARA, 2009a, p. 6). The explanation provided includes the statement that, “The overall goal is conversion of ‘knowledge about’ language into a capacity for effective listening, speaking, viewing, reading, writing and creating” (ACARA, 2009a, p. 7). In Section 5.2.7, the need for students to “develop a clear, consistent and shared language for talking about language” highlights the importance of the metalanguage related to grammar pedagogy (ACARA, 2009a, p. 7). Such a language provides students with the vocabulary necessary to discuss and to continuously improve their language use across all years of schooling. Finally, in Section 5.2.8 (ACARA, 2009a) the emphasis is on teaching the “fundamentals” with the note made that these should be explicit but also embedded and integrated in “language, literary, and literacy tasks” (p. 7).

Later in the document examples of integration of grammar within the Literature and Literacy strands are provided. These include points made in Section 5.3.1 whereby “different perspectives are associated with different uses of language” and “a text’s formal, creative and aesthetic qualities” are included as part of the Literature strand’s goal of student “...engagement with and study of, literary texts...” (ACARA, 2009a, p. 8). Also in this section, knowledge about language can be integrated with goals

such as “Encountering literary texts and creating their own will engage students partly because of what they might learn about human experiences and what they might learn about how language has been used, and can be used by them” (ACARA, 2009a, p. 8). This idea is elaborated further in the Literacy Strand in Sections 5.4.5; 5.4.6 and 5.4.7 where the needs of students in this regard are discussed in relation to the linking of language, text and grammatical skills as follows: “Students’ accurate, fluent and confident engagement with texts is based on developing skills of decoding, spelling, punctuation, and grammatical and textual fluency” (ACARA, 2009a, p. 9). However, the document goes beyond superficial ideology asking pertinent pedagogical questions of teachers about the role of grammar: “The value of learning grammar, for example, lies not simply in the ability to name a grammatical formation, text type or genre; rather, the educational questions to start with are ‘What is the purpose of this communication?’ and ‘In that light, what grammatical formations and text types can best achieve it?’” (ACARA, 2009a, p. 9).

Therefore, both “The Shape of the Australian Curriculum: English” and the “Framing Paper Consultation Report: English” do far more than state a “back to basics” approach, and instead also reflect Australia’s “strong functional theory of language” (Chen & Derewianka, 2009, p. 241). Relevant to the current research, these documents also raise the questions about whether teachers have the requisite knowledge to teach grammar effectively and, also, how a balance between the tension of a NCE servicing both beginner and more experienced teachers with an appropriate level and clarity of technical language can be achieved:

The English curriculum needs to be sufficiently descriptive to guide beginning teachers but should avoid a level of prescription that would prevent experienced teachers from using their professional skills. The documents need to be written clearly, without excessive jargon, and should communicate succinctly the key aspects of student learning. (ACARA, 2009a, p. 15)

Despite this, the NCE is written in such a way that there is little explanation about the rationale for teaching specific grammatical concepts. For example, how will teaching noun groups in Year 2 or clauses in Year 3 help students to improve literacy? As Weaver, McNally and Moerman (2001) suggest:

Much of what we teach in the name of grammar amounts to labeling parts of speech and their functions or identifying kinds of sentences, yet students need very little of this to learn the conventions of written edited English. (p. 17)

This lack of clarity also extends beyond the content of grammar contained in the NCE to how it should be taught in order to best provide for student learning.

There has been extensive academic debate between those in favour and those against explicit teaching of grammar (Cameron 1995; Carter 1990; Fontich & Camps, 2014; James 2002; Locke 2010). However, the extremes of research as well as analysis of grammar teaching from a positivist perspective do not take into consideration the teaching and learning situations experienced by learners (Fontich & Camps 2014; Hudson 2001; Locke 2009, 2010; Wyse 2001). Derewianka (2012) provides a detailed account that outlines how the Language Strand of the NCE conceives “knowledge about language” that is embedded in a “Hallidayan functional model of language” (p. 129). However, Derewianka (2012) also acknowledges that the Language Strand reveals terms that refer to traditional grammar terminology, as well as grammatical descriptions that include a functional approach. She also suggests that this is an area that requires more research with respect to the types and numbers of terms, when to introduce metalinguistic terms, or even whether a metalanguage is needed. Similarly, Exley and Mills (2012) suggest that the NCE has grammar terminology drawn from both traditional and functional grammar and that this is necessary. However, in contrast, Mulder (2011) asserts that the blending of different types of grammar has been done in a “rather ad hoc way” (p. 840). In addition, she suggests that the glossary is full of inaccuracies and inconsistencies likely to cause confusion, and in need of informed insight by modern grammatical analyses as well as made relevant to the needs of students and teachers (Mulder, 2011, p. 842).

However, irrespective of the existing rationale and whether the overall framework has inadequacies (Mulder, 2011), pre-service and in-service teachers are now required to have a working knowledge of grammar terminology as described in the NCE and the ability to apply language convention concepts in their teaching. Further, with an increased emphasis on “raising standards”, there has also been a parallel increased focus on teachers’ subject knowledge in first and second language teaching not only in Australia, but “across many parts of the world and across subjects, as governments seek to create ‘benchmarks’ of teacher competence” (Andrews & McNeil, 2005, p. 160).

As has occurred in the UK, the final complicating factor affecting pedagogy in Australia is the high stake tests that assess the set standards (e.g., in Australia NAPLAN testing). In spite of the NCE (and recent state variations) providing guidance as to what the students need to know at each year level, what is unclear is the “knowledge about language” pre-service teachers currently understand and need to know, in order to effectively teach grammar and to make pedagogical choices that best facilitate student learning (e.g., knowing basic grammar concepts). Also, while “political agendas can invite cynicism...political interests alone should not be taken as proof that concerns about teacher literacy are mere fabrications...” (Moon, 2014, p. 111). For instance, one Australian study showed that pre-service teacher knowledge was limited to basic concepts (Harper & Rennie, 2009) and, in a secondary context, teachers were found to be “below the ability level of the students they will be hired to teach” (Moon, 2014, p. 127).

Therefore, pre-service education must ensure that new teachers have the requisite knowledge of grammar terminology used in the NCE and the understanding of effective pedagogical practices. However, whether this is currently being achieved in Western Australian universities is uncertain (Moon, 2014). Similarly, it is not apparent if in-service teachers are able to implement the current curriculum (i.e., the NCE) or the Western Australian alternative. This can be answered by examining pre-service and in-service teacher knowledge and their ability to apply grammar concepts. This information can then be used to improve tertiary programs. It is one aim of the current research to do this.

## **2.6. Pedagogical Grammars and Pre-Service Education**

As a consequence of the re-introduction and focus on “grammar teaching”, questions have once again arisen over whether teachers have the requisite knowledge to teach grammar and what universities need to include in their courses for pre-service educators with regard to literacy in general and grammar teaching in particular.

According to Kolln and Hancock:

The largest hurdle for substantial change is and will continue to be an appalling lack of training for teachers and prospective teachers. In many places, teacher training includes a single survey course in linguistics, which is not nearly sufficient to cover syntax in any kind of comprehensive way. (2005, p. 29)

This is particularly important in the current environment where preparing pre-service teachers also requires that they be able to teach their future students for the current national testing regimes. For primary pre-service teachers, this situation is additionally problematic, as whilst they are expected to be expert practitioners, they are also subject generalists. This is especially difficult in relation to English, which is such a complex and broad subject made of up often quite disparate elements. Some even suggest that language and literature may need to be recognised as two separate learning areas taught by two different types of expert (Hudson & Walmsley, 2005).

Teacher training institutions are concerned to design programs that better prepare teachers for a “culturally, politically, technologically, and linguistically changing world” and to meet “more stringent professional requirements” (Love, 2009, p. 541). This knowledge has become known as “pedagogical content knowledge” (Darling-Hammond 2006, Love, 2009). May and Smyth (2007) established that “high school teachers are unable to address, overtly and deliberately, the specific language and literacy demands of their varied teaching and learning contexts” (Love, 2009, p. 544). In fact, Christie, Devlin, Freebody, Luke, Martin, Threadgold and Walton (Vol.1, 1991) made similar suggestions much earlier and had called for “a compulsory component (as part) of their preservice education, (and that) all teachers should receive a substantial preparation in knowledge about language and literacy and the pedagogical principles for their teaching” (Christie et al., Vol. 1, 1991, p. 98).

In the UK, Cajkler and Hislam (2002) found that “in terms of basic knowledge and awareness, sensational and alarmist claims are not justified” (p. 175). Whereas Jensen and Harrington (2008) found “there is some evidence of need for professional development in language awareness of practicing language teachers” (p. 8). Jeurissen (2010) concluded that New Zealand followed a similar path to Australia and that “Teachers and students need a shared metalanguage that enables them to construct and deconstruct texts...knowledge about grammar is a fundamental part of this metalanguage, yet it is possible that many teachers lack this knowledge” (p. 78).

Grammatical content knowledge has been investigated in pre-service education (Alderson, Clapham, & Steel, 1997; Alderson & Horak, 2011; Bloor, 1986) with the research findings suggesting that grammatical knowledge, particularly terminology,

is limited (Myhill, Jones & Watson, 2013). Studies, which have explored attitudes to grammatical terminology, found that “it is more suitable for use with higher rather than lower ability students” (Myhill & Watson, 2014, p. 50). In another study, Wilson and Myhill (2012) found that teachers retain the belief that grammar is “rule-bound and constraining” (p. 10). However, one of the implications drawn from a study by Harper and Rennie (2009) of first year pre-service teachers, is that “we need to take a strong approach to teaching these concepts throughout the preservice program” (p. 8) and that “teacher education programs can be effective in changing student views” (Shaw, Dvorak & Bates, 2007, p. 223).

In the USA, teachers’ knowledge has been found to be important for effective reading instruction (McCardle & Chhabra, 2004; National Reading Panel, 2000). Moats (1994) found that regarding spelling rules and conventions “Ignorance was the norm” (p 93). Other researchers, such as Berger (2001) question whether pre-service teachers have the required “verbal equipment” (p. 47) to facilitate dialogue. This is exemplified by Bos, Mather, Dickson, Podhajski and Chard (2001) who found that 53% of pre-service and 60% of in-service teachers were unable to “correctly answer half of the questions regarding ‘knowledge of language structure’” (Joshi, Binks, Hougen, Dahlgren, Ocker-Dean & Smith, 2009, p. 393). This study pertained to improving reading, but arguably “we need to turn our attention to improving teacher education and teacher development at the early grade levels by providing intensive instruction on the linguistic features of the English language” (Joshi et al., 2009, p. 400). This may also be required if grammar is to be taught well to students in Western Australian schools. Thus, there is increasing attention paid to teachers’ metalinguistic knowledge:

We believe an effective pedagogy for writing should include attention to linguistic possibilities and that teachers who are confident with grammar themselves, who understand the principles of contextualized grammar teaching, and who are creative and resourceful “adapters” of published materials are best placed to realise the potential of a focus on grammar. (Myhill, Lines & Watson, 2011, p. 10)

In England, Wales (2009) also supports a view that linguists should be consulted “and their expertise should guide policy and decisions concerned with grammar content” (p. 538). Schleppegrell (2007) suggests this should take the form of functional grammar in order to enhance pre-service and in-service teacher knowledge because it goes “beyond structural categories such as noun and verb to show the

meanings that follow from different language choices. It offers a set of coherent constructs related to the systems of grammar that writers draw on to make meaning” (Schleppegrell, 2007, p. 123).

This discussion is pertinent to Australian teachers given the nature of the grammar terminology outlined in the NCE and the way that NAPLAN now has a designated grammar component. Thomas (1987) described the importance of language teacher competence (LTC) and Cots and Arnó (2005) elaborate this further suggesting it “consist[s] of two components: Language competence...as well as pedagogic competence” (p. 59). These sentiments are similarly described by Kolln and Hancock:

The expectation is that this evolving approach will treat grammar as a meaning-making system and pay careful attention to rhetorical choices made in the creation of effective text (both in reading and writing), and that in doing so, it will draw on all relevant linguistic grammars, including generative, functional, and cognitive grammars, and that it will include advocacy for thoughtfully selected technical terminology. (2005, p. 28)

Therefore, while to codify teacher knowledge is difficult, particularly the “wisdom of practice” (Shulman, 1987, p. 11), today’s prescribed curriculum has placed subject matter as a central tenet of teacher pedagogical content knowledge (Andrews & McNeill, 2005; Brophy, 1991; Gess-Newsome & Lederman, 1999; Shulman, 1986, 1987; Turner-Bisset, 2001). In this context, subject content knowledge refers to the academic domain, and pedagogical content knowledge refers to how to teach within that academic domain (Myhill & Watson, 2014).

However, it has also been noted that in addition to teachers’ knowledge, their beliefs and awareness also “impact upon their pedagogical practice” (Andrews & McNeill, 2005, p. 160). For pre-service teachers this must be recognised, as otherwise “teacher education programs and university preparation have minimal overall impact” (Shaw, Dvorak & Bates, 2007, p. 225). For example, one of the key beliefs that needs to be assessed is whether pre-service teachers, who may believe that they write well, despite not having an express understanding of grammatical structures, will question the need for teaching grammar. Interestingly, “Teachers with higher levels of awareness of language structure tended to underestimate what they knew, whereas teachers with lower levels on objective measures tended to overestimate what they

knew” (Moats, 2009, p. 388), which could lead to teacher misconceptions being passed onto students.

Although Bigelow and Ranney (2005) note that there has been an “impressive amount of research on language teachers’ metalinguistic knowledge and beliefs about grammar instruction and their match to classroom practice” (p. 180) (e.g. Andrews, 1999; Borg, 1998, 1999a, 1999b) and there is considerable research on teacher language awareness (i.e., KAL), in the main it has mostly been undertaken with “teachers with relatively limited experience and training” (Andrews & McNeill, 2005, p. 160). As Andrews and McNeill (2005) note, there has been “little or no research to examine the language awareness of flesh-and-blood ‘Good Language Teachers’” (p.161) and this is particularly the case for in-service primary teachers in Australia. Therefore, teacher expertise in “management of *ideas* within classroom discourse” is central to this discussion (Shulman, 1987, p. 1) and provides the justification for a comparison between pre-service and in-service teachers.

Further, while what explicit knowledge of grammar students need to know is still being debated (Locke, 2010), there is “widespread agreement that teachers’ grammatical knowledge needs to be richer and more substantive than the grammar they may need to teach students” (Myhill & Watson, 2014, p. 51). Whether it is described as an ability to be “conscious analysts of linguistic processes” (Brumfit, 1997, p. 163) or having “conscious awareness” (Armstrong, 2004, p. 223) of text structures, “a teacher with a rich knowledge of grammatical constructions and a more general awareness of the forms and varieties of the language will be in a better position to help young writers” (Andrews, 2005, p. 75). Myhill and Watson agree, asserting that:

Teachers who understand grammatical forms may be better placed to support developing writers (Andrews, 2005), to identify linguistic development in their students (Gordon, 2005), and to “make the analysis explicit” (Hudson, 2004, p. 113) when examining texts with their students. (2013, p. 51)

Therefore, teachers need a “combination of subject-matter understanding and pedagogical skill” (Shulman, 1987, p. 2) and by comparing the similarities or differences between in-service and pre-service teachers, gaps in this understanding and skills might be bridged. For example, it can be used to build on Grisham’s (2000) work, which “discovered that a constructivist orientation of a pre-service

program had a measurable impact on the pre-service teachers” (Shaw et al., 2007, p. 226). Pre-service institutions might also be able to target the “most serious concerns expressed by beginning teachers in this Australian study related to the relevance of literacy teaching knowledge during their preservice education” (Louden & Rohl, 2006, p. 76). For example, “Fewer beginner teachers were confident about their capacity to teach specific aspects of literacy such as viewing, spelling, grammar and phonics” (Louden & Rohl, 2006, p 66).

Additionally, pre-service teachers may need to observe the impact of their instruction on student learning and be given the opportunity to “analyse their beliefs, consider and apply new information and articulate how their thinking has changed as a result of formal knowledge and teaching experiences” (Shaw et al., 2007, p. 238).

Therefore, pre-service education will, at a minimum, need to introduce future teachers to grammar terminology used in the NCE, how to apply this metalanguage, and also explain why and how the knowledge can be applied to improve students’ literacy skills.

## 2.7. Research Questions

Definitions of grammar and approaches to grammar teaching are both contested and contentious. This research is not designed to provide clarity on a definition of grammar, or suggest the best method for teaching grammar. Rather, the purpose of this research is to learn more about Western Australian teachers' perceptions and beliefs about grammar, and to ascertain a starting point of what pre-service and in-service teachers actually know of the grammar terminology and NAPLAN concepts in the NCE, which their role as primary teachers requires them to know and understand. It also intends to provide information to pre-service institutions about the experiences pre-service and in-service teachers have had with grammar and grammar teaching. This may provide the impetus for pre-service institutions to modify their own programs so that beginner teachers may be better equipped to teach grammar concepts found within the NCE. Therefore this research seeks to answer the following questions:

1. Are there similarities or differences between pre-service and in-service perceptions, beliefs and conceptions about the value and methods of teaching grammar in Western Australian schools?
2. Do pre-service and in-service teachers differ in the knowledge of grammar terminology as defined by the NCE?
3. Do pre-service and in-service teachers differ in their ability to apply primary school grammar concepts derived from NAPLAN language conventions tests?
4. To what extent do demographic features, such as age, influence results on the grammar terminology or application of grammar concepts?
5. How can pre-service institutions better prepare beginner teachers for teaching grammar effectively in Western Australian schools?

## **Chapter 3: Method**

This chapter provides a description of the method used in the current study. It begins with a description of the methodology used (3.1). Next the research participants and ethical issues (3.2), materials (3.3) and procedures (3.4) for each stage of the research are described in detail. The procedures for the analysis of the quantitative and qualitative data are then presented (3.5). The chapter concludes with an outline of how the validity, reliability and trustworthiness of the research were obtained (3.6).

### **3.1. Research Methodology**

A mixed methods approach was used in this study. As defined by Creswell and Plano Clark (2007), this is an explanatory sequential research design where collection and analysis of data are guided by philosophical assumptions and methods that mix both quantitative and qualitative approaches sequentially. Such an approach was deemed appropriate as it enabled comprehensive and nuanced analysis of quantitative test data (Wheeldon, 2010) supplemented by thick and rich qualitative data.

The quantitative part of the study was undertaken in the first stage of the study and involved data collection by way of a questionnaire containing demographic questions; Likert scales to assess pre-service and in-service teacher perceptions and beliefs about grammar and the NCE; and a multiple-choice test on both grammar terminology derived from the NCE and primary level grammar concepts derived from NAPLAN test materials (also see Materials 3.3 below).

The second stage involved the qualitative data collection and included in-depth semi-structured interviews, as defined by Robson's (2002) categorisation of interviews, undertaken with a sample of pre-service and in-service teachers. The open-ended questions allowed the interviewer to focus on potential areas of interest, omit irrelevant questions during the interviews, while also providing respondents with the time and scope to talk about their opinions.

### **3.2. Participants and Ethical Issues**

The participants in the first stage of the study included 69 pre-service teachers and 47 in-service teachers. The participants in the second stage of the study involved 12 participants (6 pre-service and 6 in-service teachers) who agreed to be interviewed. All the research participants were recruited via non-random convenience sampling due to resourcing constraints. The main rationale for including pre-service and in-service teachers was to provide the opportunity to compare and contrast their skills, understandings and views with respect to grammar in the NCE and NAPLAN. Depending on the quantitative and qualitative results, similarities or differences may provide tertiary institutions with data to inform pre-teacher training.

Pre-service teachers for the first stage were recruited from a large university in Western Australia (approximately 50 000 students across both national and international campuses). Third and fourth year students enrolled in either a Bachelor of Education Early Childhood or Primary, and Bachelor of Arts (Education) were deemed to be an appropriate cohort from which to select the sample for two reasons. Firstly, their qualification upon completion would enable them to teach primary aged children. Secondly, students in their third and fourth years should have completed the required units concerning the Australian NCE. These core units provide students with an introduction to the Australian Curriculum and the Early Years Learning Framework. These units also aim to develop students' confidence in their own academic and professional literacy, as well as comprehensive knowledge and application of the skills, conventions, processes and strategies for teaching English in primary schools.

During the first stage of data collection, there were a large number of third and fourth year students enrolled in Bachelor studies (n=254) as shown in Table 3.1. However, during the research period some students were enrolled in both 3<sup>rd</sup> and 4<sup>th</sup> year units. Also, approximately 15 of the students enrolled in 3<sup>rd</sup> year Early Childhood Education (ECE) units, were also enrolled in at least one 4<sup>th</sup> year Primary unit (2 of these units are common to Primary and ECE).

**Table 3.1.** *Approximate Number of Enrolled 3<sup>rd</sup> and 4<sup>th</sup> Year Students in Bachelor Studies Related to Primary Years Education in 2013*

<b>Course</b>	<b>Total Enrolled 3<sup>rd</sup> OR 4<sup>th</sup> year Primary units</b>	<b>Enrolled in 3<sup>rd</sup> year Primary units</b>	<b>Enrolled in 4<sup>th</sup> year Primary units</b>	<b>Enrolled in Internship 425</b>	<b>Enrolled in 3<sup>rd</sup> year ECE units</b>
BA, BEd	3	0	0	3	2
Bed (ECE)	70	0	30	40	88
BEd (Prim)	181	113	35	52	4
TOTALS	254	113	65	95	94

Of the 69 volunteer pre-service participants who fully completed the questionnaire and who read the required Curtin Ethics information letter and then signed the accompanying consent form (see Appendix 1), 15.9% were male and 84.1% were female. This reflects the proportional make up and gender imbalance in primary schools, in which eight out of ten teachers are female (ACER, 2015). The mean age of participants was 22.46 years ( $SD = 7.75$ ) with a range of 18 to 63 years of age. Of these participants, 20.3% reported majoring in Early Childhood Education and 79.7% reported their major was in primary education. The majority of participants completed their primary (91.9%) and secondary education (91.9%) in Australia. Of these participants, 90.8% reported English was the primary language spoken at home. With respect to teaching preferences, 81.2% of the participants reported that they have a preference to teach in the early years up to Year 3 and 76.8% reported they have a preference to teacher upper primary students (Years 4-7) once qualified. Furthermore, 5.8% indicated that they would teach secondary school students (Years 8-12) once qualified.

In-service teachers for the first stage of the study were recruited using convenience sampling from two independent primary schools in the northern suburbs of Perth, Western Australia. The 47 in-service teachers read the required Curtin Ethics information letter, provided signed consent and then fully completed the questionnaire.

Of these, 17% were male and 83% were female. The mean age of participants was 39.48 ( $SD = 10.30$ ) years with a range from 22 to 69 years of age. Of the in-service teachers, 10.6% of participating in-service teachers reported majoring only in Early Childhood Education and 70.2% reported their major was only in primary education. The remaining 19.2% reported majoring in either secondary or a combination of both ECE and Primary. The majority of participants completed their primary (56.8%) and secondary education (61.4%) in Australia. Of these participants, 93.5% reported English was the primary language spoken at home. With respect to teacher preference, 80.9% of the participants reported they have taught or have a preference to teach in the early years up to Year 3 and 87.2% reported they have taught or have a preference to teach upper primary students (Years 4-7). Furthermore, 17.0% of participants reported they have taught or have a preference to teach secondary school students (Years 8-12).

The second stage of the study involved 12 participants. These participants had completed the first stage of the research and had not ticked “I do not wish to be contacted for the purposes of a short interview” on the consent form. Six of the participants were pre-service teachers and six were in-service teachers at the time of the first stage of the research. All of the participants were teaching in Western Australian Primary Schools except for one, who was now teaching in tertiary education by the time the second stage of the data collection commenced (i.e., 18 months after the first stage). Please note that pre-service teachers participating in the interviews had begun teaching and now had up to two years teaching experience. This enabled questioning that explored differences between their university experience and actual teaching experience in primary schools as qualified teachers. Demographic information on each of the participants is listed in Table 3.2 below:

**Table 3.2.** *The Demographic Information of the Interview Participants*

<b>Participant</b>		<b>Demographics</b>		
<b><u>Code</u></b>	<b><u>Gender</u></b>	<b><u>Age in Years</u></b>	<b><u>Years of Teaching Experience</u></b>	<b><u>Teacher Major</u></b>
PS1	Female	30	2	Bachelor of Education
PS2	Female	45	2	Bachelor of Education
PS3	Female	26	2	Bachelor of Education (Early Childhood)
PS4	Female	23	2	Bachelor of Education (Primary)
PS5	Female	24	1	Bachelor of Education
PS6	Female	24	1	Bachelor of Education
IS1	Female	68	48	Teacher's Diploma with Distinction
IS2	Female	46	24	Bachelor of Arts (PGCE)
IS3	Female	40	18	Bachelor of Education (Primary)
IS4	Female	44	17	English (Primary and Secondary)
IS5	Female	43	13	Bachelor of Education (Primary)
IS6	Female	39	18	Bachelor of Education (Early Childhood)

The Ethics Committee of Curtin University approved the research study under Form C, as it does not pose an emotional or physical threat to any of the participants. All participants were in control of their level of participation in the study at all times. As stated, participants were provided with an information sheet and consent form, which clearly described the purpose of the study and stated that participants could withdraw from the study at any time. For pre-service teachers, it was made particularly clear they could do this without subjecting themselves to any disadvantage, penalty or adverse consequence. There were no issues concerning deception as all preparation adhered to Curtin University Ethical requirements. All results and survey answers remain confidential. All participants were de-identified in data analysis to ensure confidentiality. Further, access to data was restricted with only the researcher and

supervisor having access to the data during and after the study. The data were retained in password-protected files and were transferred, on completion of the thesis, from the researcher's computer to a portable hard-drive, which would be kept confidential in a locked area at the School of Education, Curtin University, for a minimum of five years.

### **3.3. Materials**

The materials for this research consisted of a questionnaire, a schedule for the interviews and resources needed for data analysis as described below.

The questionnaire was made up of three sections: demographic information, a Likert scale, and a multiple-choice test (Appendix 2). The first section of the questionnaire was designed to determine demographic information from the participants such as gender, date and country of birth, qualifications, teaching focus, primary / secondary schooling, English proficiency, special needs, and languages spoken other than English. All these sections provided to pre-service and in-service teachers were identical to enable comparison of the results of the two groups. However, in recognition of their differences in years of experience, the demographic sections provided to the pre-service teachers asked which years they hoped to teach once qualified, while the in-service teachers were asked to indicate the year groups they taught, both currently and historically.

The second section included a series of six Likert scale items (1 = Strongly Disagree to 5 = Strongly Agree), which were used to examine the participants' perceptions and beliefs about the value of teaching grammar and perceptions of their competency to teach grammar in accordance with the NCE.

The third section consisted of multiple-choice questions testing participants' knowledge of grammar terms, as derived from the Year 3, 5 and 7 Language Convention questions extracted from the 2012 NAPLAN test papers. The questionnaire was thus based on the following propositions: 1) Language conventions (grammar terminology) now exist in the Australian NCE; 2) In order to teach language conventions (grammar), teachers must understand the terminology at a curriculum level including those used in NAPLAN testing, as well as be able to

apply these language conventions and concepts in order to teach to primary aged school children.

Specifically, the grammar terminology section contained 20 multiple-choice questions relating to terms used in the NCE. The purpose of this section was to determine whether pre-service and in-service teachers were able to correctly identify definitions of grammar terminology (as derived from Content Descriptions and the Glossary in the NCE). Question One and Question two were definitions taken directly from the Glossary; the remaining eighteen questions were based on concepts described in Content Descriptions with the correct answer derived from the Glossary. See Table 3.3. below for the origins of each Grammar Terminology question.

**Table 3.3.** *Origins of Grammar Terminology Questions*

Question	Origin of Correct and False Stem Answers (NCE: Version 7.1)
1	The definition in the Glossary.
2	The definition in the Glossary.
3	Foundation Description.
4	Year 3 Content Description.
5	Year 1 Description and the definition of a simple sentence in the Glossary.
6	Year 2 Description. Definition from the Glossary. False answers derived from complex and simple definitions in the Glossary.
7	Year 2 Description. False answers derived from noun group and the “opposite” to the definition included in the Glossary.
8	Correct answer from the Glossary. False answers from various words in the Glossary.
9	Correct answer from both the Glossary and Year 3 Description.
10	Correct answer is specifically from Modal Verb in the Glossary. False answers derived from definitions of other verb types in the Glossary.
11	Derived from Year 3 Description and correct response taken from the Glossary.

- 12 Year 4 Description. Correct answer derived from noun definition in the Glossary. False answers derived from proper and common noun definitions.
  - 13 Year 4 Description and the correct answer derived from the Glossary. False answers are definitions of prefix, possessive and semi-colon.
  - 14 Year 4 Description. The answer is from the Glossary. The false definitions are taken from clause and apposition.
  - 15 Year 5 Description. The answer comes from the Glossary under the heading Clause.
  - 16 Year 4 Description. The correct answer is from the Glossary and the false responses from conjunction and comprehension.
  - 17 Conjunction is not taken from a Description. However, a familiar term used in primary classrooms. The correct answer is derived from the Glossary.
  - 18 Year 6 Description. Correct answer from the Glossary.
  - 19 Year 7 Description. Correct answer from the Glossary.
  - 20 Year 7 Description. Correct answer from the Glossary. False answer derived from mode.
- 

The rationale for focusing on the Glossary is that it is included in the documentation as a way to assist teachers in acquiring a common language and common understanding of terms used in the NCE. The rationale for drawing the multiple-choice questions from the Content Descriptions is that these provide teachers with specific knowledge, skills and attributes that children should learn throughout their primary school years. It should be noted that subsequent versions of the curriculum, such as the Western Australian Curriculum, must still correspond to the National framework. Therefore, teachers need to be able to recognise the meaning of terminology used in these descriptions so as to provide learning opportunities that will assist children in achieving these clearly stated learning goals.

Resources for the interviews included an iPhone5 and the Application TapeACall Pro, which enabled phone calls to be merged and recorded with the participants' consent. Data analysis required the use of IBM SPSS (22.0) statistics software.

### **3.4. Procedure**

As a first step in this research, an ethics application was made to Curtin University's ethics committee. After approval was granted the study commenced. As indicated above, this study involved two stages involving quantitative and then qualitative methods. The procedure followed in each of these stages is described below.

#### **3.4.1. *Stage 1 Development of Grammar and NAPLAN Test Questions for the Questionnaire***

As indicated above, the first step in undertaking this research was the development of the questionnaire to test the participants' grammatical knowledge. To do this it was necessary to first identify the Content Descriptions from the NCE that related to grammar. While there are identified categories for writing, reading, speaking and listening, there is no specific identification that any Content Descriptions relate to grammar. Therefore, to identify whether or not a description pertained to grammar, it was first necessary to decide upon a definition of grammar. Initially, this was done using that provided in the Glossary of the Curriculum Version 4.0, namely that grammar is:

The language we use and the description of language as a system. In describing language, attention is paid to both structure (form) and meaning (function) at the level of the word, the sentence and the text. (ACARA, Version 4.0, 2012)

In the current version (8.2) the definition remains substantively the same:

A description of a language as a system. In describing a language, attention is paid to both structure (form) and meaning (function) at the level of a word, a sentence and a text.  
(<http://www.australiancurriculum.edu.au/english/glossary#G>)

However, this is a relatively broad definition of grammar and, although conducting a search of grammar on the Content Descriptions provided some guidance, more specific terminology was needed to address the scope of the research. To do this, three experienced teachers were asked to read each of the Content Descriptions using a binomial response to determine whether each descriptor related to grammar or not. This analytic protocol ensured a high degree of objectivity as only Content Descriptions receiving 100% agreement on "Yes" responses were used as a source for the terminology included in the questionnaire (Fearn & Farnan, 2007). This process, and using teachers more familiar with traditional grammar, did result in the

exclusion of some Content Descriptions that might be considered as derived from a functional approach to language as described by Derewianka (2012). It also excluded Content Descriptions relating to punctuation, spelling and editing. (The specific results of this process are provided in Appendix 3).

Currently, the National English curriculum is Version 8.1 and there is now a Western Australian Curriculum (also Version 8.1). It should be noted that the current versions include changes to the grammar terminology that were used previously in Content Descriptions from earlier versions (prior to Version 7.1) and, therefore, some of the questions in the questionnaire use terminology that is no longer in the Content Descriptions (which in a sense reflects the fluidity of the content of Grammar as encapsulated in the curriculum). However, the terminology is still included in other relevant sections of the Curriculum and the Glossary. For example, the word adverbial has been deleted from the Year 4 Language Content Descriptions for Version 8.1 and the Description is now written both in the NCE and in the Western Australian Curriculum as:

Understand how adverb groups / phrases and prepositional phrases work in different ways to provide circumstantial details about an activity (ACELA 1495).

In earlier versions the same description was written as:

Understand how adverbials (adverbs and prepositional phrases) work in different ways to provide circumstantial details about an activity (ACELA 1495).

However, while adverbial is omitted from the Content Description, it still appears in the Glossary, in the Curriculum website, and the Year 3 and Year 6 Elaborations (for example Year 6 ACELA1523 referring to adverbials of time) and remains a Schools Online Thesaurus (ScOT) catalogue term.

It should be noted that the purpose of ScOT is to collate and filter online resources and provide relevant resources for teachers to plan lessons in order for students to achieve outcomes reflected in the Content Descriptions. Therefore, while changes in terminology such as this could indicate a subtle move by curriculum writers to promote less traditional grammar terminology for student attainment, the eclectic nature of grammar terminology used in the NCE remains relevant to teachers and was included in the test.

While “Classroom assessment is changing” (Haladyna, Downing & Rodriguez, 2002, p. 310) in attempt to measure higher-level learning, the multiple-choice format continues to be important and is commonly used for educational and standardised tests. This method also reflects the format of the Language Conventions section used in the NAPLAN that, as indicated previously, are the annual standardised tests to be completed by all students Australia-wide in Years 3, 5, 7 and 9 in the four areas of Reading, Writing, Language Conventions and Numeracy.

For the questionnaire, each question initially consisted of a stem in which there was only one correct option and three distractors that were incorrect. When the first iteration of the test was piloted with five experienced teachers, the length of time it took to complete it was approximately 40 minutes. This was deemed too long as it would be likely to discourage participation by some teachers. The pilot participants also raised concerns that qualified teachers might be reluctant to complete the test because the answers were either right or wrong. Therefore, the test was revised to include a stem in which there was still only one correct response, the number of incorrect distractors reduced to two, and the addition of an “I am unsure” response choice included. This provided participants with a “safe” option that would encourage participants to complete the whole questionnaire.

Participants who piloted this questionnaire also provided feedback that some language used in the multiple-choice questions was overly convoluted. For example, Question 8 in Grammar Terminology section is written as:

A noun group / phrase:

- Consists of a noun as the major element, alone or accompanied by one or more modifiers. The noun functioning as the major element may be a common noun, proper noun or pronoun.
- A clause that describes the noun using numerals, adjectives or auxiliary determiners and are usually joined by a coordinating conjunction.
- A collection of nouns separated from the object of the sentence by an adjective modifier to maintain meaning.
- I am unsure.

Although these answers are complex, the language used reflects the definitions found in the Glossary and the distractor language was taken directly from words and definitions used in other parts of the Glossary. Therefore, while some of the more complex distractors were deleted or simplified, most were retained because this language reflects the terminology used in the NCE.

Following the completion of the Grammar Terminology questions (labeled Section 1, Questions 1 – 20), Test Questions Relating to Grammar Concepts (application of primary language conventions) were developed based on the model taken from NAPLAN test papers (labeled Section 2, Questions 21 – 52) and included 32 multiple-choice questions.

The section Language Conventions is defined broadly as spelling, grammar and punctuation. According to the National Assessment Program website there are minimum standards for spelling as well as minimum standards for grammar and punctuation. These minimum standards can be found on the National Assessment Program website (<http://www.nap.edu.au/naplan/language-conventions/language-conventions.html>) and include features such as a simple sentence, the correct use of conjunctions and verb forms, and correct use of relative pronouns and clauses.

For the purposes of this research, the NAPLAN questions were derived from the 2012 Year 3, Year 5 and Year 7 Language Conventions tests. The 2012 test questions were chosen because they immediately preceded the data collection period. While the majority of Year 7 children are now taught in secondary schools in Western Australia, much of what children will be required to know is taught in the primary years. Therefore, while this could be considered a limitation on the research, the inclusion of these questions was deemed relevant to the scope of this research. Year 9 tests were excluded, as the focus is on primary level content. Limitations regarding NAPLAN, including suggestions that it encourages students and teachers to consider grammar as prescriptive and in isolation to context are noted (Williams, 2009). However, it is not the purpose of this study to delve into the “lightning rod of claim and counter-claim” of the “battleground for competing educational philosophies” with respect to NAPLAN testing (Polesel, Dulfer & Turnbull, 2012, p. 3). Students are required to participate in testing in Years 3, 5, 7 and 9 on a yearly basis. Therefore, preparing students for these tests is now an expectation placed on all schools.

The questions in the questionnaire mirrored the exact format found in the NAPLAN tests and were initially selected if they satisfied the definition of grammar from the Glossary and required participants to apply knowledge of grammar concepts. The selection of these questions was reviewed and piloted by three independent English teachers, each with over 25 years of primary teaching experience. The teachers selected for this task were working in Western Australian Primary Schools and were current or past members of the Australian Literacy Educators’ Association. After pilot testing, the only amendments involved removal of questions that repeated concepts already tested and this was done to reduce the time taken to complete this section of the questionnaire.

Eleven questions were taken from the Year 3 NAPLAN test, four from Year 5 and seventeen from the Year 7 NAPLAN test. Year 5 questions number the least due to the overlap of questions from Year 3 and Year 7. Year 7 questions number the most because pre-service and in-service teachers, who have completed tertiary study, would be expected to successfully answer primary school aged questions irrespective of whether they are trained in early years or primary years of teaching.

### ***3.4.2. Administration of the Questionnaire for Pre-service and In-service Teachers***

The questionnaire was administered to the pre-service and in-service participants either under supervision of their tertiary lecturer or the researcher. Questionnaires could only be completed during an allotted class time for pre-service teachers or on the day of the professional development for in-service teachers. This was done to avoid the possibility that the participants might use the Internet, or consult with colleagues or other resources to assist them in answering test questions. There was no time limitation placed on the participants for completion and only questionnaires that contained answers in each of the three sections were included in the analysis. No support or assistance was given to participants completing the questionnaire. A detailed description of the procedure for pre-service and in-service teachers is provided below:

#### *Pre-service Teachers*

To maximise the sample size of students, four lecturers who were teaching 3<sup>rd</sup> and 4<sup>th</sup> year students were contacted. Of these, three lecturers responded to the invitation for their students to participate voluntarily in the study. The researcher met with each lecturer individually to explain the rationale for the research, providing the information sheet, consent form and an example of the questionnaire. The lecturers each verbally agreed to provide their students with the questionnaire to complete voluntarily at the end of class time, thus meaning that there was no time restriction for the completion of the instrument.

Once each lecturer had agreed to provide class time for students to voluntarily complete the questionnaire under informal exam conditions, the questionnaires were provided in individual envelopes. The available class times occurred at different times of the day and at different times over a two-week period. The supervising lecturer provided each participant with a consent form, information sheet and questionnaire placed inside an envelope. The supervisor then explained the purpose of the research using the consent form and information sheet, emphasising the voluntary and confidential nature of their participation.

The participants were requested to read the information sheet individually, indicate whether they did not wish to be contacted for an interview, write their name, contact

number, email and then sign and date the consent form. Once they had completed the questionnaire, they were able to seal the test in an envelope and place it in a box at the front of the room. Data from test scores were kept electronically and only identifiable by a linked code kept secure and separate from test data in the Supervisor's Office.

In total, 73 responses were received. Of these 69 included the signed accompanying consent form. The two unsigned questionnaires were not included in the data sample. A further two were examples were excluded because the participants did not entirely answer sections within the questionnaire.

### *In-service Teachers*

The schools from which the in-service teacher participants were drawn had principals and teaching staff known to the researcher. As a first step, the researcher sent an email to both principals inviting their participation. Both principals agreed to a meeting at their respective schools in which the rationale for the research and procedure for the questionnaire were explained using the information sheet, consent form and an example of the questionnaire. Both principals agreed to provide the opportunity for their teachers to participate in the research. They suggested a time during a shared professional development day at the start of Term 3, 2013 for teachers to voluntarily complete the questionnaire, with the researcher overseeing their participation. Again there was no time restriction for questionnaire completion, and access to the Internet and the opportunity for discussion of answers between participants was also limited.

Both schools are situated in suburbs where the socio-economic status is deemed to be "middle class" with a School Index of Community Socio-Education Advantage marginally above the median value of 1000 at the time of the research (myschool.edu.au, 2012). Each school had student populations of approximately 400 students and attendance records of approximately 95% at the time of the data collection. School A had 37 full-time equivalent teachers and School B had 31 full-time equivalent teachers.

On the first day of Term 3, 2013, the researcher provided each teacher with a consent form, information sheet and a questionnaire inside an envelope. The rationale and

procedure for the research were explained to the participants, once more emphasising the voluntary and confidential nature of their participation. In-service teachers who agreed to complete the questionnaire were requested to read the information sheet, indicate whether they did not wish to be contacted for an interview, write their name, contact number, email and then sign and date the consent form. Only questionnaires in which responses were recorded in each of the three sections and were completed during the allotted time were included in data analysis. Once they had completed the questionnaire, the participants were able to seal the test in an envelope and place it in a box at the front of the room.

Approximately twenty teachers were either absent on the day the test was conducted or refused to complete the questionnaire. One partially completed questionnaire was excluded from the analysis because of insufficient data.

### ***3.4.3. Development of the Interview Protocol and Interviewing of Participants***

An Interview Schedule was developed to further explore issues emerging from the results of the stage one quantitative questionnaire. That is, the quantitative data were tested using an inductive and qualitative approach. Specifically, the interview schedule was open-ended and exploratory (see Appendix 4) and it enabled the researcher to frame emerging themes within the context of the participants' discussions (Creswell & Plano Clark, 2007). Similar to studies conducted in the UK and the USA (Cajkler & Hislam, 2002; Petruzella, 1996; Qualifications and Curriculum Authority, 1998; Watson, 2015), which explored meanings, associations and conceptions of "grammar", this study gathered similar data, but did so from Western Australian teachers.

The semi-structured interviews took a holistic approach that was interactive and iterative (Simons, 2009, p. 118). Participants were contacted prior to the interview by phone to confirm their continued willingness to participate. This included reviewing key items of informed consent such as confidentiality, anonymity of transcription, the voluntary nature of the process, and that participants could withdraw at any time. Once participants agreed to continue to participate, a date and time was organised for the phone interview to be conducted.

The phone interviews were recorded using a software application (TapeACall Pro) in which the calls could be recorded, downloaded and stored securely, including password protection. Participants were reminded that their participation would remain anonymous to encourage honest and fully detailed answers.

The interviews were structured around three thematic categories to ensure internal consistency: Individual Perceptions of Grammar and the NCE (affective and beliefs); Conceptions of Grammar; and Evaluation of Grammar Pedagogy in schools and pre-service institutions. To address reflexivity and maintain focus on “validity as reflexive accounting” (Denzin & Lincoln, 1998, p. 278) every participant was informed that the questions would be deliberately open-ended.

### **3.5 Analysis**

The analysis was undertaken in two stages reflecting the research design of this study.

#### **3.5.1. Stage One Analysis**

The results for each Likert scale response were summed to provide a measure of strength for the related perceptions. These results were later used to inform the qualitative phase of the research and also to allow interrogation of the differences between pre-service and in-service teacher results (Vogt, 1999).

The Grammar Terminology and NAPLAN questions were marked as either correct or incorrect. The “I am unsure” responses provided in the Grammar Terminology section were also marked as incorrect because teachers did not select the correct answer. The marking scheme for the National Standardised Test Questions relating to Grammar Concepts was taken from a website that provides answers to past NAPLAN exams ([pasthsc.com.au](http://pasthsc.com.au)). There was no requirement to crosscheck the scoring process, as each item was clearly correct or incorrect (Fearn & Farnan, 2007).

Questionnaire data were then analysed using SPSS (22.0) for Windows. All measured variables were described in terms of frequencies, means and standard

deviations. Analysis of the Likert scale items began with the conversion of the responses to numerical values (e.g., 1 = Strongly Disagree to 5 = Strongly Agree). Independent samples *t*-tests compared pre-service and in-service teacher scores on the Grammar Terminology test, NAPLAN and perceptions. All data were analysed at the 0.05 level of significance. Correlational analysis occurred for demographic, perceptual and competency items.

As the results were not normally distributed, non-parametric Mann-Whitney U tests were used to determine if there were differences in analysis using non-transformed data. Pre-service and in-service test results were then collated for the purpose of providing correlation analysis of two selected demographic characteristics: age and years since university graduation.

### **3.5.2. Stage Two Analysis**

The interviews were transcribed using standard orthography as well as a process of respondent checking, to avoid errors or omission. Interview data were then analysed in three stages using “constant comparative methods” (Glaser & Strauss, 1967) to ensure consistent coding (Flick, 2007) and establish analytic distinctions (Charmaz, 2006). Throughout the analysis, memos provided opportunities to compare and explore ideas about the codes in order to show relationships with developed theoretical categories (Charmaz, 2006).

The initial stage of the analysis of the discourses involved line-by-line coding to separate, sort and synthesise the data (see Table 3.4. below). This included the use of terms that reflected participant perspectives or innovative terms that captured meanings or experiences such as “At-Point Teaching”, “Crowded Curriculum” and “Grammar Talk”. The first level of coding was primarily descriptive in nature in order to identify recurrent patterns, as well as to begin considering potential thematic dimensions and analytical categories.

**Table 3.4.** *Example of Line-by-Line Coding*

Excerpt 1	Question: Where was your knowledge of grammar derived?
IS4 In-Service	
<u>Initial Coding</u>	<u>Answer</u>
School / self taught Writing Knowledge gap Self taught	School mainly and then also some self-testing and self-improvement later on, especially when writing large documents and realising that a lot of, some things that I assumed I knew, I didn't know as well, so having to re-teach myself grammar.
Prescriptive grammar Knowledge to model Prescriptive grammar Self taught	Or just check in with grammar as an older person. I think also getting to work with younger people kind of seeing the patterns of what they do incorrectly and then also making sure that I'm modelling that well in my own work. So kind of seeing mistakes in other people's work, seeing mistakes in my own work, and then kind of going away and doing further study. So I would say those two areas; one more formal and one more informal.

The second stage of coding required reviewing the data in order to develop open codes. Open codes included data that shared properties in common and were labeled and grouped into specific categories. This process enabled the grouping of examples of participants' words into categories such as "Perception of Grammar"; "Perceptions of Grammar in the NCE" and "How Grammar Should be Taught". This process was conducted several times with the coding refined and regrouped as properties of each code became evident. Pre-service and in-service teacher examples of participants' words were grouped together, but colour-coded so that similarities and differences could be identified. Once again, this was an iterative process in which the categories were built around responses from teachers, rather than teacher responses placed into specific categories. An example of this analysis is provided in Table 3.5. on page 51.

Finally, an interpretive phase was conducted that aimed to "discern and interpret" themes, by identifying relationships among the open codes while guarding against preconceptions in order to avoid "common sense theorizing" (Charmaz, 2006; Shutz,

1967). As shown in Table 3.6. (p. 53), the method used focused on coding statements (i.e., axial codes) that illustrated themes and lessons derived from the relationships between the categories (Lincoln & Guba, 1984; Patton, 2002). This provided conceptual and theoretical development to illuminate the quantitative data analysis and potentially provide “the grist for emergent hypothesis” for further research (Charmaz, 2006, p. 101).

**Table 3.5. Conceptualisations of Grammar – Open Coding Grouped into Categories**

Open Code	Properties	Examples of Participants' Words
Provides structure	Non-colloquial	So, for me it's really looking at how language works, to dissect the structure.
	How language works – building blocks	its not just about writing, but how to structure a paragraph or how to write an essay, all of these ideas are linked up they are all micro macro – they are all connected; The ability to speak and write in a non-colloquial way, in more of a formal situation; in opposition to casual talk that is required for interviews, job situations. So it's speaking and writing.
	Micro-macro – connected	I will always use the terminology of Lego – these words are your Lego bricks, and you learn to use and to speak the language fluently is Legoland, but you have to have the little bricks otherwise you can't build...so you have to learn those bricks and how they fit together.
Right words in the right way	Word order and punctuation	What a sentence is, what a sentence is made up of, how we punctuate a sentence using capital letters, full stops, then some kids go onto speech marks, depending on where they're at; For me, grammar is just using the right words in the right order in the right way.
	Sentence structure	Sentence structure. When I think of grammar it's more like the tenses, past tense, present tense and then nouns, verbs, adverbs, adjectives, language features. That's what I think of when I think of grammar.
	Labeling parts of speech	I think, it is mainly punctuation and that isn't it and stuff And if you speak to a child about what is grammar, it would be a full stop at the end of a sentence, it is not treated with great importance really. It's about the system of language...how everything its together to make meaning.

Communicating ideas clearly	Understanding	I think grammar is just part of people's speaking in a way, speaking clearly so that people can understand what you say and what you write. If it's not grammatically correct people won't understand you correctly.
	Part of your everyday	So it wasn't until uni and I saw these people who wanted to be teachers and who for some reason are teachers had absolutely no idea about grammar whatsoever, because if you can, if you know it and you've learnt it, then it just becomes part of your everyday and part of your literacy; speaking, writing, reading.
	Expressing ideas clearly	I think grammar is part of all aspects of literacy, so what I want the kids to get out of it is to be able to express their ideas clearly.  I just want the kids to have a really good understanding of grammar, so that they'll be able to express their ideas in whatever way: speaking, writing, clearly.
Lacking clarity on concept of grammar	Limited knowledge of different types / pedagogical theories	You're just trying to get those building blocks which grammar links to, but they're just so....grammar is basically...even defining grammar is tricky, but it is those understanding of the building blocks ...  The building blocks of language and correct use of language I guess.
	“Defining grammar is tricky”	I have touched on clauses and things but they get confused, so we do the subject of the sentence and everything...simple terminology, so describing the subject...yeah...sorry, loss of concentration.  Yes I'm aware of that, but it's not something I've focused on really strongly because I suppose I tend to connect my own training; No, I wouldn't be able to; I wouldn't know it that well. I do know that we get very confused.
	Vague	It's based on teaching the National Curriculum.  In this way you've got to treat grammar likes it's a completely different language because the way you say things are not interpreted the same way on paper.
	Complex / confusing	Grammar is important, because it's how language fits together, but the concept of grammar, well the terminology is just very complex and confusing.

**Table 3.6.** *Example of Open Codes Grouped Providing a Statement (Axial Code) Leading to Theme*

Open Codes	Axial Codes	Selective Code / Theme
<p>Believe it is necessary and important to teach children; Australian Benchmark; Provides structure; Rights words in the right way; Communicating ideas clearly; Skills for communication; Demonstrates intelligence</p>	<p>Believe a national standard and teaching grammar are important.</p>	<p><i>Explicit and meaningful teaching of a clear and shared grammar, empowers and provides individuals with the capacity to express themselves.</i></p>
<p>Supports 2<sup>nd</sup> language learning because of common grammar terminology; 2<sup>nd</sup> language teaching promotes grammar knowledge and improves first language</p>	<p>Mutual benefit to first and second language from use of common grammar terminology.</p>	
<p>“Drilled” in school; In order to teach students more effectively; Self-improvement; Family background supported grammar knowledge; Student education; Student ability; Life experience</p>	<p>Internal and external influences.</p>	
<p>Direct teaching is important and requires knowledge; Teaching should be functional; Grammar teaching should be contextual; Grammar teaching should be rhetorical; Grammar teaching should be playful; Grammar knowledge should begin early and then increase in complexity</p>	<p>Explicit and meaningful; An eclectic pedagogical approach.</p>	

### 3.6. Validity, Reliability and Trustworthiness

This research employed a mixed methods approach to provide a more holistic point of view (Patton, 1990) and did so by utilising varied sets of data and collection methods. While convenience sampling was used at all stages of this research, the variation in data minimised opportunities for error and for reaching erroneous conclusions (Arksey & Knight, 1999). In addition, quality control mechanisms were also employed to ensure the validity, reliability and trustworthiness of the research. This was achieved by employing different mechanisms for triangulation (Long, 2005) because “Relying on one method of data collection may bias the research or provide a different picture to the researcher of the phenomenon under investigation” (Eisenhart, 2006, p. 568). Further, the inclusion of complementary quantitative and qualitative data sources increased the likelihood of measuring what the research intended to measure and to minimise bias.

Therefore, in this research credibility was increased by using multiple sources of data (Davis, 1995; Denzin & Lincoln, 1994), namely: pre-service teachers, in-service teachers and curriculum documentation. In this way, the multiple methods used at the data collection stage (document analysis, Likert scale, two multiple-choice tests, interviews) were able to reveal “different aspects of teachers’ knowledge...to get a fuller picture of teachers’ knowledge” (Bartels, 2005, p. 2). This also enhanced the confidence of the overall data set, and in the way it could be analysed and interpreted (Arksey & Knight, 1999; Swanborn, 2010).

For the questionnaire, a Likert scale was used to measure pre-service and in-service attitudes and beliefs about grammar and the NCE. Participants were asked to respond to statements using fixed choice response formats in order to measure their beliefs on an ordinal scale of agreement / disagreement (Bowling, 1997; Burns & Grove, 1997). The strength of this approach is that it allowed for teacher attitudes about these statements to be measured. However, limitations should also be acknowledged. These included the use of unnecessarily subjective language such as “an *excellent* understanding” in two of the statements and also social desirability bias which, with this population and context, could have resulted in teachers taking into account

media pressures about the value of grammar teaching and concepts. However, as the questionnaire was anonymous, this factor may have been reduced (Paulhus, 1984).

The second stage of the questionnaire was used to ascertain whether teachers could correctly identify grammar terminology used in the NCE. The obvious limitation is that the grammar terminology test lacked standardised performance benchmarks against which participant scores could be measured. Also, that the test format tested skills in isolation and out of context (Moon, 2014). However, the strength of the multiple-choice test is that it allows for impartial, reliable and valid diagnostic information. However, as a new procedure, several steps were required to ensure its quality (Seliger & Shohamy 1989).

The first step was to overcome the challenge of determining a definition for “grammar” for the purposes of this research. This required document analysis of relevant materials including curriculum documents and specifically the ACARA papers and the NCE Descriptions. Thus, the definition of the NCE Grammar was extended to include the teaching of grammar concepts and the use of grammar terminology, but excluded spelling, editing and phonics. To ensure the reliability of the grammar descriptions, independent checks were undertaken of the material from Foundation to Year 7 by three experienced teachers, and only those descriptors receiving 100% agreement were included in the test.

The rationale for choosing a multiple-choice test was that answers were fixed and could be drawn directly from the NCE Glossary or Descriptions. Each stem was a direct question with participants able to select from four options: the correct response, two incorrect responses (distractors) and the statement “I Am Unsure”. As all of the terminology was derived from the mandated NCE - the document from which teachers must teach and assess their students - as noted previously, the “I Am Unsure” response was also deemed incorrect. The items were expressed as clearly as possible, within a curriculum context, included words with precise meanings and avoided unnecessarily complex or awkward word arrangements. One criticism raised in the pilot phases was that the answers were overly convoluted. Whilst efforts were made to address this concern, it was not possible to shorten and simplify many of the options as the wording needed to reflect the style of language used in the NCE.

Content validity of each test item was achieved by way of three pilot trials. To do this, practicing teachers were asked to provide feedback to ensure that the grammar terminology test measured what it purported to measure (Newman & Benz, 1998; Seliger & Shohamy, 1989), namely, the grammar terminology used in the NCE. Participants in the pilot phase were also requested to provide item analysis, assessing whether each item was too easy or too difficult, well phrased and easily understood (Seliger & Shohamy, 1989). Limitations of the Grammar Terminology test include the difficulty in providing a continuum from novice to expert and that the participants could potentially guess the correct answers (Haldyna, 1996; Haldyna & Rodriguez, 2013). To address this, an unsure answer was included and designed to provide teachers with an opt-out option, rather than creating a situation where they were encouraged to guess. Additionally, as the NCE, on which the test was based, is the primary document from which teachers teach and measure success of student learning, it seems reasonable that a teacher should be able to answer questions as an “expert”.

The third stage of the questionnaire was the inclusion of NAPLAN test items. NAPLAN tests have been subjected to “well-established methods for estimating the reliability of tests. These methods indicate that the reliability of NAPLAN tests is high and that they can be used with confidence and are fit for purpose” (ACARA, 2013, p. 2). However, a limitation on the use of the NAPLAN test in this context is that it had to be modified for the purposes of this research. This limitation was negated by following a process of independent checks, by three experienced teachers, with only test items from Year 3, 5 and 7 being included if they received 100% agreement that they pertained to grammar as defined for the purposes of this study. Once the questions were selected, formatting was constructed in the same way as they were presented to primary students in 2012. Another obvious limitation is that teachers may have been familiar with the NAPLAN test if they had reviewed these questions or conducted these tests with students, which may have given an advantage to in-service teachers over the pre-service teachers. However, once again, as these test items are provided to primary aged pupils, the purpose of giving this test was to assess whether teachers could apply concepts they are expected to teach. Similarly, a continuum of novice to expert was not the issue assessed here, as,

arguably, all teachers should be at an expert level when applying grammar knowledge required of their primary aged students.

SPSS (22.0) was used for all statistical analysis of the 116 participant responses to the questionnaire. Incomplete returns of the questionnaire or partial returns were excluded. Validity of data was strengthened because participants completed the questionnaire under supervision as opposed to other methods such as computer completion that can undermine the ability of the researcher to evaluate the sincerity of responses (Hewson, Yule, Laurent & Vogel, 2003). However, this did result in sample bias and a reduction in generalisability due to the use of non-random convenience sampling (i.e., only teachers from two schools and one university were able to complete the questionnaire). Therefore, the samples cannot be considered representative. While attempts have been made to include information on demographic characteristics to provide detailed descriptions of the sample, all of the teachers were drawn from two schools which according to the Index of Community Socio-Educational Advantage (ICSEA) had similar populations of students: 0% indigenous students, 6% of children with a language background other than English and a 95% student attendance rate (myschool.edu.au, 2012). Similarly, different universities providing primary teacher training in Western Australia may not share the same characteristics and therefore the extent to which the findings from this study can be viewed as representative of the experiences of all pre-service teachers and in-service teachers across the state is limited. However, it should be noted that the in-service teachers were drawn from teacher training institutions from all over the World and thus their responses may be considered to provide a wider range of participant observations.

The final phase of the research was a series of interviews with individual pre-service and in-service teachers. The purpose of the interviews was to allow the researcher to “focus on specific questions and to elicit attitudes and espoused conceptions” (Bartels, 2005, p. 5). This allowed for triangulation in terms of data collection and, further, a clear audit trail has been provided to enhance the reliability of the qualitative analysis (Zohrabi, 2013). Mason (1996) notes the importance of trust and so participants were assured and reminded of methods, such as the changing of any identifiable information and coding to maintain anonymity, to ensure confidentiality and privacy prior to obtaining informed consent. Independent checking of the

interview schedule was conducted three times to narrow the focus of interview questions and avoid repetition, with pilot interviews designed and conducted to improve the reliability and consistency of the procedure. Interviewer effects were minimised by asking similar questions of each respondent by the same interviewer (Patton, 1990). However, the use of a mobile application called TapeACall (Teltech, 2016) permitted the researcher to be attentive to interviewees (Patton, 1990) as notes did not need to be taken simultaneously and the interviews could be listened to repeatedly. This also enabled the researcher to listen carefully to what was being said and ask pertinent questions (Rubin & Rubin, 2005), balancing consistency of procedure with an iterative approach. The researcher was cautious to maintain objectivity during the interviews and when conducting data analysis. Specifically, member checking was utilised to maintain the integrity of teacher responses (Bryman, 2008; Cohen, Manion & Morrison, 2011; Creswell, 2007; Lincoln & Guba, 1985) and, similarly, inductive reasoning (Merriam, 1988) during data analysis to reduce opportunities for researcher subjectivity.

## Chapter 4: Findings

This chapter consists of four sections. Section One (4.1) provides a description of Western Australian teacher perceptions about the value of teaching grammar to students; their conceptions of grammar as it relates to the NCE; and, their confidence in teaching grammar concepts according to the NCE. Section Two (4.2) concerns the capability of primary school pre-service and in-service teachers to teach the grammar components of NCE by presenting the quantitative data analysis about grammar terminology and NAPLAN test items. In this section, there is also a description of the relationships that exist between demographic characteristics, such as age and years since graduation, speaking a language other than English or gender, and grammar terminology and NAPLAN test results. Section Three (4.3) explores in more detail teachers' beliefs about the role of the NCE and grammar teaching. This section illustrates the tension that exists between teacher perceptions of grammar teaching, and systemic issues affecting their capacity to deliver effective pedagogy. Section Four (4.4) provides commentary about the effectiveness of teacher education programs to prepare teachers to teach this content.

### 4.1. Section One

This section begins by presenting the qualitative analysis describing whether and to what extent pre-service and in-service teachers value grammar teaching. Descriptive statistics are presented illustrating pre-service and in-service teacher perceptions about the value of teaching grammar as well as teacher qualitative reflections on the origins of their own beliefs and knowledge of grammar. Following this, the focus shifts to teachers' understanding and confidence in teaching grammar concepts to students based on the NCE. Correlational analysis and independent samples *t*-test findings are presented to explore similarities, differences and the relationships between pre-service and in-service teacher responses.

#### ***4.1.1. The Value of Teaching Grammar***

The first analytical theme derived from the qualitative analysis concerns pre-service and in-service teachers' beliefs that "*Explicit and meaningful teaching of a clear and shared grammar, empowers and provides individuals with the capacity to express themselves*". For example, the importance pre-service teachers place on the value of teaching grammar is illustrated by comments obtained from the interviews such as "I personally feel like grammar is really such an important part of our very complicated language" (PS5) and "Yes, it is important, and it definitely does help their writing" (PS2). In-service teachers also agreed that, "It's necessary" (IS4) and "Kids are at school to learn, we teach them grammar, so that they can write, we teach them grammar, so that they understand what they're reading" (IS5). However, unlike the pre-service teachers, the in-service teachers indicated reticence in teaching grammar, explaining their concerns that the way grammar is taught in schools can be boring:

IS3: I mean my grammar is probably a hate / love relationship.

IS4: It was very boring the way the school taught it.

IS2: I blocked out all the explicit teaching of grammar because it was boring...which it is (laughs).

IS6: I think the teaching of it can be boring.

These findings are further supported by the quantitative results. Specifically, Table 4.1. shows the descriptive statistics for two Likert scale Teacher Perception Items. The items required the teachers to rate two statements concerning the value of teaching grammar (1 = Strongly Disagree to 5 = Strongly Agree).

In the first instance, the pre-service teacher scores for the item "I think teaching grammar to students is important" and "I think teaching grammar helps students to become better writers" ranged from a score of 3 (neutral) to five (strongly agree) with a mean of 4.47 for the former and 4.46 for the latter. Although achieving a slightly lower average, the in-service teacher scores for these items ranged from a score of 2 (disagree) to 5 (strongly agree) with mean scores of 4.11 and 4.15 respectively, still demonstrating considerable support for the notion that grammar teaching is valuable.

**Table 4.1.** *Description of Pre-service (N = 68) and In-service (N = 47) Teachers' Perceptions of the Value of Teaching Grammar*

Teacher Perception Items	Lowest	Highest	Mean	SD
The value of teaching grammar (Pre-service)				
I think teaching grammar to students is important.	3	5	4.47	0.63
I think teaching grammar helps students to become better writers.	3	5	4.46	0.68
The value of teaching grammar (In-service)				
I think teaching grammar to students is important.	2	5	4.11	0.84
I think teaching grammar helps students to become better writers.	2	5	4.15	0.83

Note. 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4= Agree; 5 = Strongly Agree

However, in spite of concerns that grammar teaching can be boring, when correlation analysis was undertaken a positive relationship was found to exist between all the teacher perceptions (i.e., both pre- and in-service teachers) that teaching grammar to students is important and teaching grammar helps students to become better writers ( $r = .743$ ,  $p = .000$ ). (Note: These relationships between teacher perceptions about teaching grammar and their knowledge of the NCE is explored in greater detail and illustrated in Table 4.4.).

#### ***4.1.2. Beliefs and Understandings about Grammar and Confidence to Teach the National Curriculum***

Pre-service and in-service teachers described the origins of their beliefs and understandings about grammar. Most of the pre-service teachers suggested that they developed their understanding of grammar in school, “I remember covering it in Year 4 of primary school, a lesson on verbs I think” (PS6) and “It would have been more school than home, for learning it all through school” (PS1). However, one pre-service teacher indicated it was her family background that cultivated her beliefs and knowledge of grammar, “My Mum was a real ‘grammar Nazi’” (PS5).

Three in-service teachers also referred to how their knowledge of grammar was predominantly derived from their own school experience. It is notable that each of these three teachers was educated overseas. Another in-service teacher indicated she began to focus on grammar only after she started teaching and she did so in order to teach her students more effectively. However, she indicated that she did not recall grammar being a focus in her own schooling:

IS5: I don't know whether perhaps it is the fact that maybe I wasn't ready to learn that when I was at school, I don't know, or maybe I understand it more now, I don't know...but there's things that I teach kids today that I think, I was not taught that, I was not taught how to do that.

Several pre-service and in-service teachers also illustrated how teaching students was a catalyst for improving their own knowledge of grammar, for example:

PS4: So before teaching a skill, I have to read up on it to understand it to be able to teach it.

PS6: I remember the first day a student asked me why the sentence was incorrect. I knew it was wrong, but didn't know how to explain why, so I ran to my mentor teacher and asked her. That was when I knew I had to start learning more about grammar to be an effective teacher.

IS4: I think also getting to work with younger people, kind of seeing the patterns of what they do incorrectly, and then also making sure that I'm modelling that well in my own work (Explaining why she was motivated to learn about grammar).

The teachers' understanding of grammar concepts, as encapsulated in the Australian Curriculum, and their level of confidence when teaching these concepts to students was also examined in the quantitative part of this study. Specifically, Likert scale responses were sought from the pre-service and in-service teachers in this regard. These results are shown in Table 4.2 below:

**Table 4.2.** *Description of Pre-service (N = 68) and In-service (N = 47) Teachers' Perceptions of their Competence to Teach Grammar in Accordance with the Australian NCE*

Teacher Perception Items				
<u>Pre-service</u>	<u>Lowest</u>	<u>Highest</u>	<u>Mean</u>	<u>SD</u>
I have an excellent understanding of the Australian Curriculum: English.	2	5	3.28	0.69
I have an excellent understanding of grammar concepts as described in the Australian Curriculum: English.	2	4	2.91	0.64
I feel confident when teaching my students grammar concepts in accordance with the Australian Curriculum.	1	4	3.15	0.78
<u>In-service</u>				
I have an excellent understanding of the Australian Curriculum: English.	1	5	3.02	0.94
I have an excellent understanding of grammar concepts as described in the Australian Curriculum: English.	1	5	2.78	0.96
I feel confident when teaching my students grammar concepts in accordance with the Australian Curriculum.	1	5	3.15	0.97

Note. 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4= Agree; 5 = Strongly Agree

As can be seen in this table, the pre-service teachers' perception of their understanding of the NCE ranged from a score of 2 (Disagree) to 5 (Strongly Agree) with a mean score of 3.28. This is slightly higher than the mean score of 2.91 and a range of 2 (Disagree) to 5 (Strongly Agree) for their perception of their understanding of grammar concepts. One participant's comments reflect the way pre-service teachers grapple with the concepts related to grammar:

PS3: In this way you've got to treat grammar, like it's a completely different language, because the way you say things are not interpreted the same way on paper.

In terms of their confidence to teach students grammar concepts in accordance with the NCE, the pre-service teachers' responses ranged from 1 (Strongly Disagree) to 4 (Agree) with a mean score of 3.15. This lack of confidence is evidenced by the lack of clarity several pre-service teachers showed when describing their concept of grammar:

PS5: You're just trying to get those building blocks which grammar links to, but they're just so, grammar is basically, even defining grammar is tricky...

PS6: Grammar is important, because it's how language fits together, but the concept of grammar, well the terminology is just very complex and confusing.

In comparison, the in-service teacher perceptions for all three items ranged from a score of 1 (Strongly Disagree) to 5 (Strongly Agree) as shown in Table 4.2. above. The mean scores for their understanding of the NCE and their understanding of grammar concepts were 3.02 and 2.78 respectively. The mean score for in-service teacher perception of their confidence when teaching students grammar concepts in accordance with the Australian Curriculum was 3.15. In this way, it can be seen that the in-service and pre-service teacher perceptions of their understanding of the NCE and grammar concepts appear to be quite similar. This is illustrated by comments from in-service teachers that are not dissimilar to those made by pre-service teachers, including:

IS2: I feel like it's getting more complex and even I don't understand what they're talking about, even for Year 7 and 8 kids.

IS1: I do know that we get very confused, certainly in the last year or two, because when we were planning to use the language of the curriculum, when we bought into a few different schemes and books and things like that to guide us, they used different language. And then a lot of the staff have gone on a PD and it's through AISWA, but it's a grammar PD, it's a five-day course throughout the year, they are coming back with different language as well.

To compare the pre-service and in-service teacher perceptions, an independent samples *t*-test was conducted with the mean scores of measured variables. The results for this *t*-test analysis are presented in Table 4.3.

**Table 4.3.** *t*-test Showing Differences between Pre-service Teachers ( $N = 68$ ) and In-service Teachers ( $N = 47$ ) in their Perceptions on the Value of Teaching Grammar and on their Competence to Teach Grammar in Accordance with the National Curriculum

Likert Statements	<i>t</i> -test for Equality of Means						
	<u>t</u>	<u>df</u>	<u>Sig. (2-tailed)</u>	<u>Mean Difference</u>	<u>Std. Error Difference</u>	<u>95% Confidence Interval of the Difference</u>	
						Lower	Upper
I think teaching grammar to students is important.	2.648	113	.009*	.364	.138	.092	.637
I think teaching grammar helps students to become better writers.	2.170	113	.032*	.307	.141	.027	.587
I have an excellent understanding of the Australian Curriculum: English.	1.697	113	.092	.258	.152	-.043	.560
I have an excellent understanding of grammar concepts as described in the Australian Curriculum: English. (Welch's <i>t</i> -test results)	.797	71.582	.428	.129	.162	-.194	.452
I feel confident when teaching my students grammar concepts in accordance with the Australian Curriculum.	-0.031	112	.975	-.005	.164	-.330	.319

Note. \*  $p < .05$ .

As a first step for this analysis, an inspection of boxplots was made and this indicated that there were outliers for all perception scale items except “I think teaching grammar to students is important”. However, as they were neither data entry nor measurement errors, the ratings were deemed genuinely unusual values. Therefore, the Mann-Whitney U analysis has also been included. Rating scores were not normally distributed, as assessed by Shapiro-Wilk’s test ( $p > .05$ ). However, non-normality does not affect Type I error rate substantially and the independent samples  $t$ -test can be considered robust. According to Levene’s test for equality of variances, there was homogeneity of variances for all ratings ( $p > .05$ ) with the exception of “I have an excellent understanding of grammar concepts as described in the Australian Curriculum: English” ( $p = .002$ ) for which Welch’s  $t$ -test analysis is presented.

Pre-service teacher rating ( $M = 4.47$ ,  $SD = .634$ ) of teaching grammar to students as being important was higher than in-service teachers ( $M = 4.11$ ,  $SD = .840$ ). This was a statistically significant difference,  $M = 0.364$ , 95% CI [0.09, 0.64],  $t(113) = 2.648$ ,  $p = .009$ . Pre-service teachers also rated “I think teaching grammar helps students to become better writers” ( $M = 4.46$ ,  $SD = .679$ ) higher than in-service teachers ( $M = 4.15$ ,  $.834$ ). This was also a statistically significant difference,  $M = 0.307$ , 95% CI [0.03, 0.59],  $t(113) = 2.170$ ,  $p = .032$ .

A Mann-Whitney U test was utilised to determine if there were differences in ratings for each of the perception items. For, “I think teaching grammar to students is important” and “I think teaching grammar helps students become better writers”, distributions of the rating scores for pre-service and in-service teachers were similar, as assessed by visual inspection. However, median rating scores were found to be statistically significantly higher for pre-service teachers (5.00) than in-service teachers (4.00),  $U = 1\ 224.5$ ,  $z = -2.324$ ,  $p = .002$  for “I think teaching grammar to students is important”. Similarly, median rating scores were significantly higher for pre-service teachers (5.0) than in-service teachers (4.00),  $U = 1\ 280.5$ ,  $z = -1.979$ ,  $p = .048$ . However, no other comparisons were statistically significantly different.

The relationships between the teachers’ perceptions were then examined using correlational analysis. The results for this are shown in Table 4.4 below:

**Table 4.4.** *Correlations between Perceptions of the Value of Teaching Grammar and Teacher Competence to Teach Grammar (N = 115)*

Teacher Perception Items	I think teaching grammar to students is important.	I think teaching grammar helps students to become better writers.	I have an excellent understanding of the Australian Curriculum: English.	I have an excellent understanding of grammar concepts as described in the Australian Curriculum: English.	I feel confident when teaching my students grammar concepts in accordance with the Australian Curriculum.
I think teaching grammar to students is important.	-	.743**	.081	.243**	.078
I think teaching grammar helps students to become better writers.		-	.177	.257**	.184**
I have an excellent understanding of the Australian Curriculum: English.			-	.615**	.434**
I have an excellent understanding of grammar concepts as described in the Australian Curriculum: English.				-	.612**
I feel confident when teaching my students grammar concepts in accordance with the Australian Curriculum.					-

Note. \*\* Correlation is significant at the 0.01 level (2-tailed).

Not surprisingly correlation analysis revealed a strong relationship between the teacher perceptions of having an excellent understanding of the NCE and having an excellent understanding of grammar concepts as described in the NCE ( $r = .615, p = .000$ ). In terms of teaching, again it is not surprising to find a positive relationship between an excellent understanding of the NCE and feeling confident to teach grammar concepts in accordance with the NCE ( $r = .434, p = .000$ ). Similarly, a significant relationship was also found between teachers having an excellent understanding of grammar concepts as described in the Australian Curriculum (English) and teachers feeling confident to teach students grammar concepts in accordance with the Australian Curriculum ( $r = .612, p = .000$ ), and the more teachers perceive they have a comprehensive understanding of grammar concepts, the more they feel teaching grammar helps students to become better writers ( $r = .257, p = .006$ ). Similarly, a positive relationship exists between the perception that teaching grammar helps students to become better writers with their perception of greater confidence with teaching grammar concepts ( $r = .184, p = .050$ ).

In terms of the value of teaching grammar, a positive relationship was found between teacher perceptions that teaching grammar to students is important and their having an (excellent) understanding of grammar concepts as described in the NCE ( $r = .243, p = .009$ ). That is, the greater understanding teachers believe they have of grammar concepts, the more important they believe it is to teach students grammar.

#### ***4.1.3. Summary***

The findings for Section 1 suggest that pre-service teachers view teaching grammar to students as important and that grammar helps students to become better writers more so than in-service teachers (as demonstrated by their ratings of these items). It does seem that teacher beliefs are predominantly derived from their own school experiences, but that becoming a teacher heightened their awareness of the value of grammar and it was a catalyst for wanting to improve their own knowledge. The data presented in Section 1 also illustrates that there is a relationship between teachers who rated grammar as helping students to become better writers and their perceived understanding of the NCE, grammar concepts within the NCE, and their confidence in teaching such concepts. The more teachers perceive they understand the NCE and

the grammar concepts contained within it, the more important they value the teaching of grammar to students. This provides important contextual information for the test results presented later, as data shows that while such relationships exist, some pre-service teachers lacked clarity in their understanding of grammar as described in the NCE. Additionally, in-service teachers had concerns over the increasing complexity of grammar terminology and that this was causing confusion. Following the analysis of teacher knowledge presented next, Section Three further explores their perceptions about the pedagogical practices pertaining to the curriculum and grammar teaching.

## **4.2. Section Two**

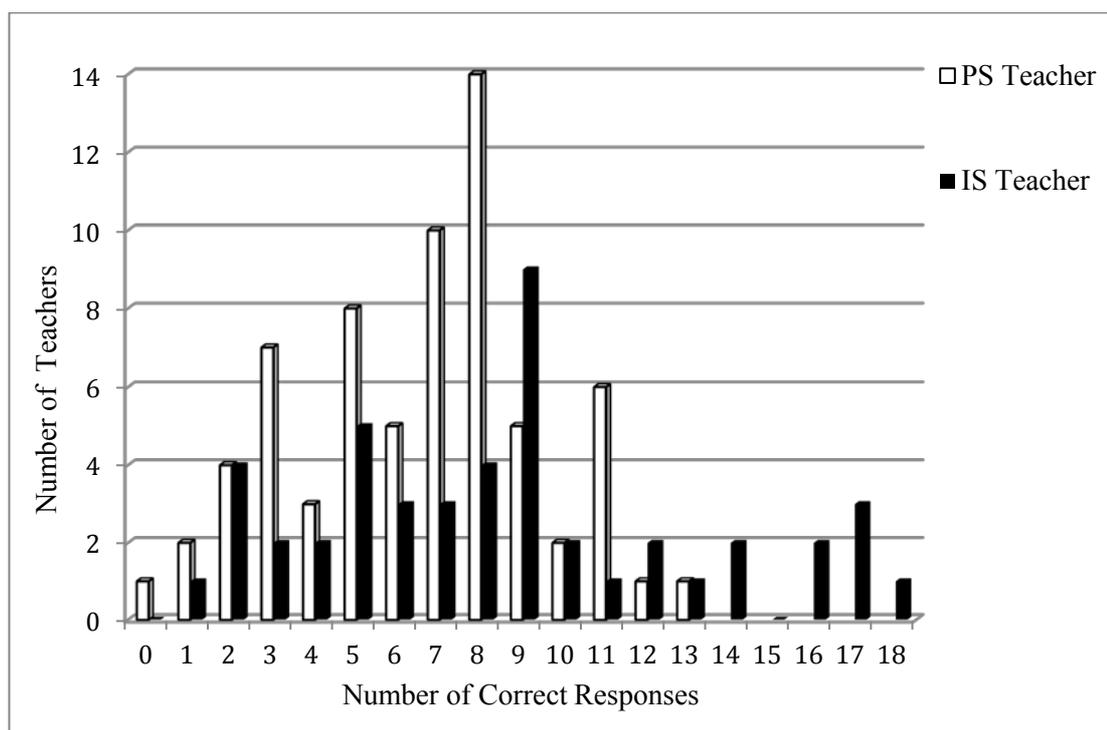
This section provides the findings of the data analysis concerning teacher knowledge of grammar terminology and NAPLAN concepts, and whether key demographic characteristics influenced test scores.

### ***4.2.1. Grammar Terminology Test Descriptive Statistics***

Pre-service and in-service teacher knowledge of grammar terminology was measured with 20 multiple-choice items derived from the NCE Content Descriptions and Glossary. Table 4.5. provides a descriptive summary of results of the participating teachers. As can be seen, considerable variability between teachers was apparent. For example, pre-service teacher raw scores range from a low of 0 to a high of 12 out of the possible 20. In-service teacher raw scores ranged from 1 to 18 out of the possible 20.

**Table 4.5.** Description of Pre-service Teachers' (N = 68) and In-service Teachers' (N = 47) Scores on the Grammar Terminology Test

Scales and subscales	Lowest	Highest	Mean	SD
<u>Pre-service and In-service Teachers</u>				
Grammar Terminology (maximum 20)	0	18	7.31	3.78
Grammar Terminology (% correct)	0	90	36.55	18.91
<u>Pre-service Teachers</u>				
Grammar Terminology (maximum 20)	0	13	6.54	2.95
Grammar Terminology (% correct)	0	65	32.68	14.74
<u>In-service Teachers</u>				
Grammar Terminology (maximum 20)	1	18	8.45	4.55
Grammar Terminology (% correct)	5	90	42.23	22.74



*Figure 4.1.* Number of pre-service (N = 68) and in-service (N = 47) teachers achieving raw scores on Grammar Terminology test.

A graphical representation of the participating pre-service and in-service total scores on the Grammar Terminology test (out of possible score of 20) is presented in Figure 4.1. As can be seen, one pre-service teacher scored zero and 88% of pre-service teachers achieved a score of ten or below. The highest achievement score for a pre-service teacher was 13/20. This contrasts to in-service teachers, eight of whom scored between 14 and 18 out of the possible 20. Regardless of teaching experience (pre- or in-service) no participant achieved the maximum score of 20 on the grammar terminology questionnaire items.

**Table 4.6.** *Percentage of Correct Responses for the Groups of Pre-service (N = 68) and In-service (N = 47) Teachers on Individual Grammar Terminology Test*

*Questions*

Grammar Terminology Question (Grammar term requiring definition / identification)	Pre-service % Correct	In-service % Correct
1. Grammar	53.6	51.1
2. Metalanguage	40.6	42.6
3. Sentences	21.7	38.3
4. Clause	39.1	45.7
5. A simple sentence	60.3	59.6
6. A compound sentence	61.2	74.5
7. Noun	65.7	72.3
8. A noun group / phrase	33.3	32.6
9. A verb	14.5	40.4
10. A modal verb	2.9	23.9
11. Adverb	23.2	23.4
12. Pronoun	47.8	42.6
13. Preposition	35.8	58.7
14. Adverbials	19.1	25.5
15. Difference between a main and subordinate clause	25.8	45.7
16. Connective	31.3	38.3
17. Conjunction	37.7	45.7
18. Tense	18.8	30.4
19. Prepositional phrases	26.1	29.8
20. Modality	4.3	29.8

The percentage of pre-service and in-service teacher correct responses on individual grammar terminology test questions is presented in Table 4.6. Differences between the group of pre-service teachers and the group of in-service teachers are apparent. The lowest percentage of correct responses for the group of pre-service teachers was

for the questionnaire item that required defining a modal verb (2.9%) and the highest was for the definition of a noun (65.7%). In-service teachers scored lowest on the definition of the term adverb (23.4%) and modal verb (23.9%), and highest on the definition of a compound sentence (74.5%).

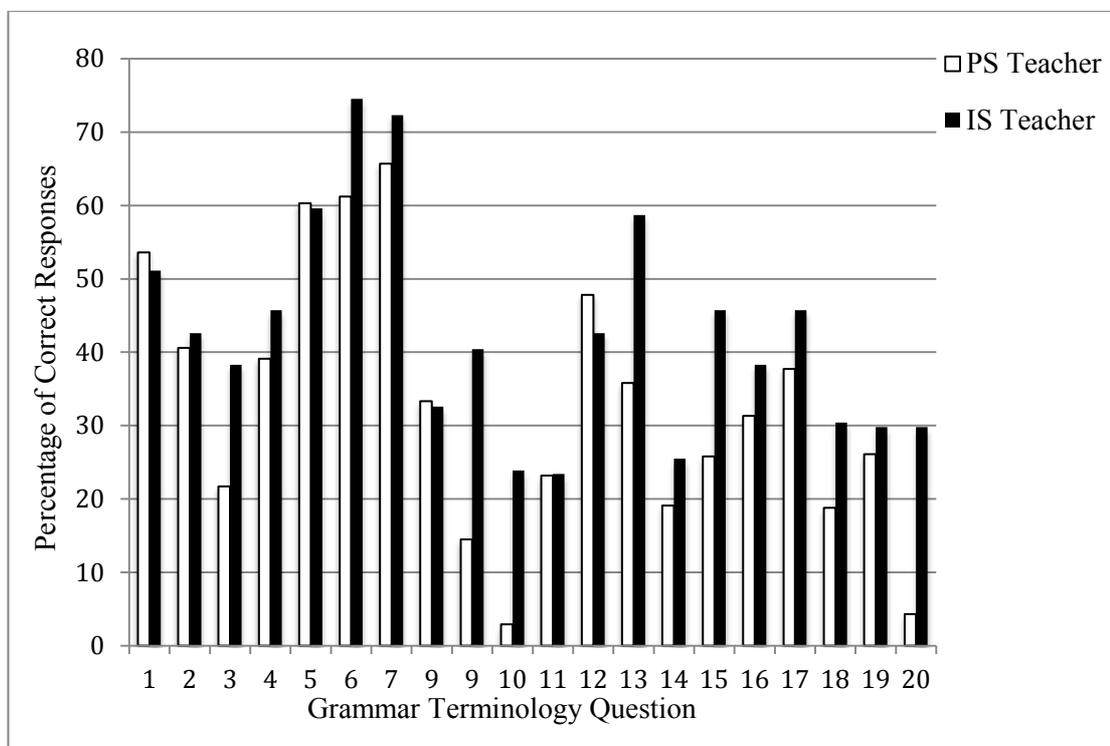


Figure 4.2. Percentage of correct responses for pre-service (N = 68) and in-service (N = 47) teachers on individual grammar terminology questions.

Figure 4.2. is a graphical representation of the percentage of correct responses for each question on grammar terminology for each group of teachers. As can be seen the pre-service teachers scored a higher percentage of correct responses on only four question items: definition of grammar, a simple sentence, a noun group / phrase and pronoun.

This data appears to support concerns the teachers expressed over the increasing complexity of grammar terminology. Specifically, while 53.6% of pre-service teachers and 51.1% of in-service teachers were able to define the term grammar, the highest percentage of correct responses for both pre-service and in-service teachers were for those questions concerned with the definitions of a simple sentence, compound sentence and a noun. Outside of these examples, the percentage correct dropped to 50% or below for all other items.

#### 4.2.2. NAPLAN Test Descriptive Statistics

The measure of pre-service and in-service teachers' ability to apply grammar concepts used in the NCE (i.e., student skills) was adapted from the 2012 Year 3, 5 and 7 NAPLAN standardised tests. Table 4.7. provides a descriptive summary of the range of raw NAPLAN scores and mean percentage scores for the teacher participants. As can be seen the lowest achievement scores for pre-service and in-service teachers were 8 and 11, respectively, with the highest achievement scores for both categories being the maximum possible score of 32 out of 32. The mean percentage achievement score for pre-service teachers was 85.16% with the in-service teacher mean percentage achievement score marginally higher at 86.10%.

**Table 4.7.** *Description of Pre-service (N = 68) and In-service (N = 47) Teacher Scores on the NAPLAN Questions (Student Skills)*

Scales and subscales	Lowest	Highest	Mean	SD
<u>Pre-service and In-service Teachers</u>				
NAPLAN (maximum 32)	8	32	27.37	4.19
NAPLAN (% correct)	25	100	85.54	13.09
<u>Pre-service Teachers</u>				
NAPLAN (maximum 32)	11	32	27.25	3.89
NAPLAN (% correct)	34.38	100	85.16	12.15
<u>In-service Teachers</u>				
NAPLAN (maximum 32)	8	32	27.55	4.63
NAPLAN (% correct)	25	100	86.10	14.47

Figure 4.3. presents a graphic depiction of the number of pre-service and in-service teachers' raw scores in relation to the NAPLAN Questions. As can be seen the most frequent score for pre-service teachers was 28 out of a possible 32, and for in-service teachers the most frequent score was 29 out of 32. Pre-service and in-service teachers' results are similarly distributed. Specifically, 3 pre-service and 5 in-service teachers scored the maximum achievement with 32 correct responses. One in-service teacher achieved a raw score of 8 out of 32 (25%), which was deemed to be valid as

every question was attempted with a response provided. The lowest achievement score for pre-service teachers was 11 out of 32 (43.38%).

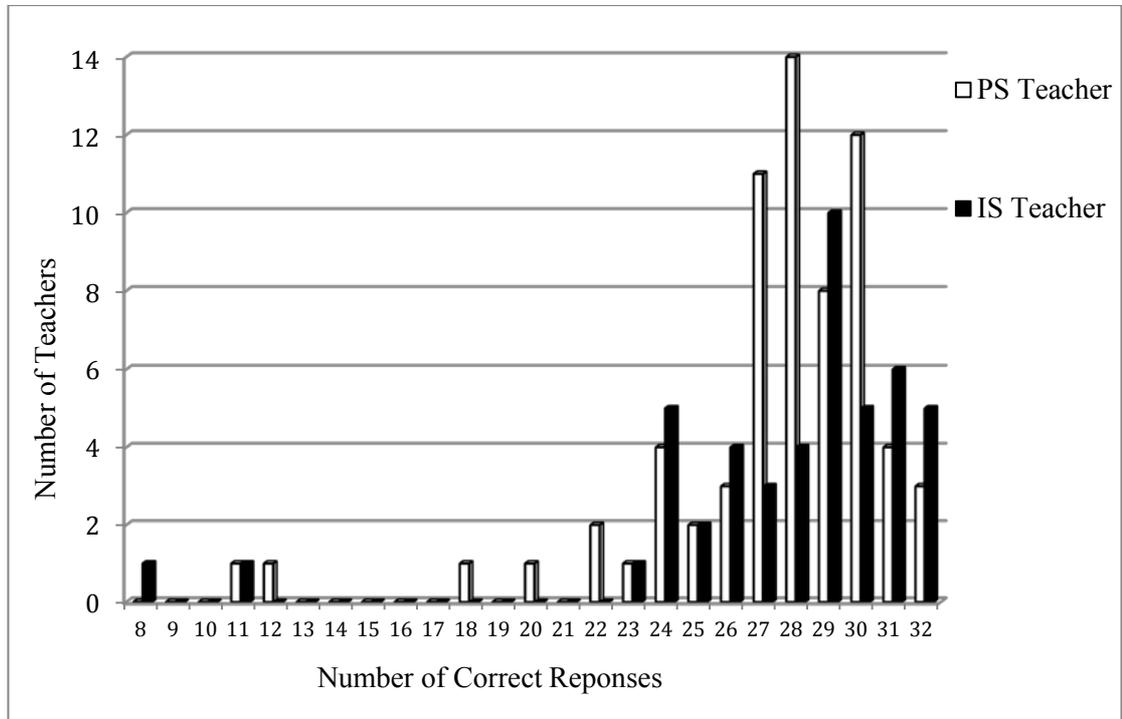


Figure 4.3. Number of pre-service (N = 68) and in-service (N = 47) teachers achieving raw scores on the selected NAPLAN test items.

The percentage of pre-service and in-service teacher performance on individual NAPLAN test questions (Year 3) measured as total number of correct responses is presented in Table 4.8. As can be seen, percentages of correct responses for pre-service teachers range from 83.8% to 100% and in-service teacher percentages of responses range from 87.2% to 100%. The only question that all teachers scored correctly was in response to a preposition question (Question 21). The lowest percentage correct score for pre-service teachers was for identifying the word in a sentence that tells us “how an action is done” (adverb). The question with the lowest frequency for in-service teachers was completing the sentence correctly by inserting the past simple verb “were” to match the correct subject.

**Table 4.8.** *Percentage of Correct Responses for Pre-service and In-service Teachers on Individual NAPLAN Questions for Year 3 (N = 115)*

Year 3 NAPLAN Questions	% Correct	
	<u>Pre-service</u>	<u>In-service</u>
21. I went for a ride on my bike. (preposition)	100	100
22. When my dog Ned has a bone he tries to keep it to himself. (pronoun)	98.5	91.5
23. My friend sent me a get-well card because I broke my arm. (subordinating conjunction)	98.5	100
24. John will be coming with us. (plural personal pronoun - objective)	100	95.7
25. The girls ran up the steep hill, keen to beat their brother home. (action verb)	97.1	95.7
26. I found a torn packet of coloured pencils at the bottom of my schoolbag. (adjective)	100	95.7
27. I saw Pat. (Which one of these is a sentence?)	92.6	95.7
28. They were camping near a river. (Subject – verb agreement past simple)	92.6	87.2
29. The first thing we learned at our swimming lessons was to get into the pool safely. (adverb)	83.8	91.5
30. Let’s ride our bikes down to the river to see if there are any pelicans. (apostrophe contraction)	86.2	97.8
31. I am worried that I might of lost my pencil case. (might have)	93.9	93.5

The percentage of pre-service and in-service teacher performance on individual NAPLAN test questions (Year 5) measured as total number of correct responses is presented in Table 4.9. As can be seen, percentage of correct responses for pre-service teachers ranges from 73.1% to 98.5%. In-service teacher percentages range from 82.6% to 100%. The highest frequency of correct responses for pre-service and in-service teachers was the question relating to separating items on a list using commas with all in-service teachers scoring 100%. The lowest percentage correct for

pre-service teachers was the correct use of “it’s” and “its”. The lowest percentage correct for in-service teachers was for the question relating to the conjunction “while” used to mean “whereas”.

**Table 4.9.** *Frequency of Correct Responses for Pre-service and In-service Teachers on Individual NAPLAN Questions for Year 5 (N = 115)*

Year 5 NAPLAN Questions	% Correct	
<u>Question on Test</u>	<u>Pre-service</u>	<u>In-service</u>
32. I love picture books about horses, dolphins and other animals. (commas to separate a list)	98.5	100
33. When I arrived at school today, I went straight to meet my friends. (verb past tense)	92.5	97.8
34. Clams live in the ocean and have two shells, while snails have only one shell and live on land. (conjunction “while” used to mean “whereas”)	89.6	82.6
35. It’s exciting to see the sailing boat flying across the lake with its sails billowing in the wind. (apostrophe – contraction v ownership and exception for “its” no apostrophe for ownership)	73.1	89.1

The teachers’ performance on individual NAPLAN test questions (Year 7) as measured by a percentage of the total number of correct responses is presented in Table 4.10. As can be seen, the percentage of correct responses for pre-service teachers is more variable. The lowest percentage was for responses to the question on nominalisation (43.8%) and the highest percentage correct was for the correct use of the pronoun (100%). In-service teacher percentages range from 53.3% (complex sentence) to 100% (apostrophe for possession). Pre-service and in-service teachers percentage correct scores were lowest for two questions; one relating to complex sentences and the other to nominalisation.

**Table 4.10.** *Frequency of Correct Responses for Pre-service and In-service Teachers on Individual NAPLAN Questions for Year 7 (N = 115)*

Year 7 NAPLAN Questions	% Correct	
	Pre-service	In-service
36. My sister and I ride our bikes to school every morning. (pronoun)	100	91.3
37. After school Mum is picking us up and we might go to the pool for a swim. (modal verb-possibility)	94.0	91.3
38. Raj has forgotten his key and he can't open the door. (past participle)	89.6	95.7
39. The cave was cool and enticing. The team entered through the archway framing its inviting interior. (determiner)	95.5	93.5
40. They ventured further in, finally emerging into a large dim cavern. At first they had difficulty seeing their surroundings. (time adverbial)	92.5	88.9
41. Not only is Jane coming first in English, but she is also in line for the top place in Science. (verb present continuous)	94.0	93.5
42. The most popular flavours of ice-cream are vanilla and chocolate. (subject verb agreement) Do you know that both flavours come from beans? (auxiliary verb – question form)	88.1	93.5
43. Paul's phone was lost at school. (apostrophe possession)	92.5	100
44. Numerous species of animals live in rainforests all over Earth. Millions of insects, reptiles, birds and mammals call them home. (pronoun-them)	82.1	82.6
45. Two years later, John returned from Charleville and started university. (complex sentence)	49.3	53.3

46. We <u>used</u> the <u>white</u> bread when <u>we</u> ran out of the brown <u>bread</u> . (tautology)	82.1	78.3
47. A soccer ball is round in shape. (adjective)	79.1	75.6
48. A new 100m breastroke record was set by Australian swimmer Leisel Jones at the Beijing Olympic Games. (capitalisation)	74.6	63
49. Lee conducted his science experiment confidently. (adverb)	73.8	86.7
50. The pottery dish was fired in the kiln. (sequencing)	65.2	73.9
51. Cleverness (making a noun from an adjective – nominalisation)	43.8	55.8
52. The racquets for the tennis match are in the locker. (correct sentence grammar and meaning)	71.9	77.8

#### ***4.2.3. Comparing Pre-service and In-service Teacher Grammar Terminology Test Scores***

Before the analysis was undertaken, comparing pre-service and in-service teachers Grammar Terminology Test Scores, an inspection of a boxplot revealed two outliers in the pre-service teacher data. However, as they were neither data entry or measurement errors, they were deemed genuinely unusual values. Further, there was homogeneity of variances as assessed by Levene's test for equality of variances ( $p = 0.06$ ). Therefore, while the non-normality may create a Type 1 error, it was deemed that the independent samples  $t$ -test could be considered robust, even so nonparametric analysis was also undertaken. The in-service teachers scored  $M = 42.23$ ,  $SD = 22.74$  compared by way of independent samples  $t$ -tests with pre-service teachers  $M = 32.68$ ,  $SD = 14.74$  (including outliers) and this indicates a statistically significant difference  $M = 9.55$ , 95% CI [2.66, 16.44],  $t_{114} = 2.746$ ,  $p = .007$ . Excluding outliers, pre-service teachers scored  $M = 32.69$ ,  $SD = 13.85$  which also indicates a statically significant difference  $M = 9.55$ , 95% CI [2.75, 16.35],  $t_{112} = 2.781$ ,  $p = .006$ .

A Mann-Whitney U test also determined there were significant differences in grammar terminology test scores between pre-service and in-service teachers. Although the distributions of the test scores for pre-service and in-service teachers were similar, as assessed by visual inspection, percentage achievement score was statistically significantly higher for in-service teachers ( $Mdn = 40.0$ ) than pre-service teachers ( $Mdn = 35$ ),  $U = 2\ 002.5$ ,  $z = 2.153$ ,  $p = .031$ .

Overall, even when taking into account these differences, neither the pre-service nor the in-service teachers' scores appear to demonstrate a high degree of competency with grammar terminology as described in the NCE.

#### ***4.2.4. Comparing Pre-service and In-service Teacher NAPLAN Test Scores***

An analysis was undertaken comparing pre-service and in-service scores on the NAPLAN test items. Only 3 pre-service and 5 in-service teachers were able to correctly answer all of the questions taken from primary school NAPLAN questions in that year.

Further, an inspection of the boxplot revealed five outliers identified in the pre-service teacher data and two outliers in the in-service teacher data. Data entry and measurement errors were checked and the values were deemed to be genuinely unusual. Shapiro-Wilk's test indicated that the test data were not normally distributed ( $p < .05$ ), and the similarly skewed distribution was likely due to the elementary level of the NAPLAN questions. Thus, there was homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = .417$ ). However, while non-normality can lead to a Type 1 error, once more the independent samples  $t$ -tests were considered robust. However, once more a nonparametric analysis was also undertaken.

The analysis showed the in-service teachers scored  $M = 86.10$ ,  $SD = 14.46$  compared with pre-service teachers  $M = 85.15$ ,  $SD = 12.15$  (including outliers) and using an independent samples  $t$ -test this indicated no statistically significant difference  $M = .947$ , 95% CI [3.99, 5.87],  $t_{113} = .380$ ,  $p = .417$ . By excluding outliers, the assumption of variances was violated, as assessed by Levene's test for equality of variance ( $p = .047$ ). Therefore, Welch's  $t$ -test was performed. In-service teacher

scored  $M = 88.61$ ,  $SD = 8.16$  and pre-service scored  $M = 88.10$ ,  $SD = 6.55$ , but once more no statistically significant difference was found  $M = .506$ , 95% CI [3.44, 2.43],  $t(81.798) = .343$ ,  $p = .732$ .

A Mann-Whitney U test was then run to determine if there were differences in analysis of test results using non-transformed data (NAPLAN test scores) between pre-service and in-service teachers. Distributions of the test scores for pre-service and in-service teachers were similar, as assessed by visual inspection. Although the median percentage test score between pre-service ( $Mdn = 87.5$ ) and in-service teachers ( $Mdn = 90.625$ ) on the NAPLAN test appeared different, this was not statistically significant,  $U = 1\,770$ ,  $z = .986$ ,  $p = .324$ .

Table 4.11. provides a descriptive summary of mean percentage scores for the teacher participants separated and grouped according to Year 3, Year 5 and Year 7 questions. This is also illustrated in diagrammatically in Figure 4.4.

**Table 4.11.** *Descriptive Summary of Mean Percentage Scores (t-test group statistics) Separated According to Year 3, Year 5 and Year 7 NAPLAN Questions*

Scales and subscales	Mean	SD
Percentage Correct Year 3 NAPLAN		
Pre-service (N = 68)	94.25	9.01
In-service (N = 47)	94.78	10.85
Percentage Correct Year 5 NAPLAN		
Pre-service (N = 68)	87.13	19.55
In-service (N = 46)	91.85	19.76
Percentage Correct Year 7 NAPLAN		
Pre-service (N = 68)	79.98	13.63
In-service (N = 46)	81.33	15.15

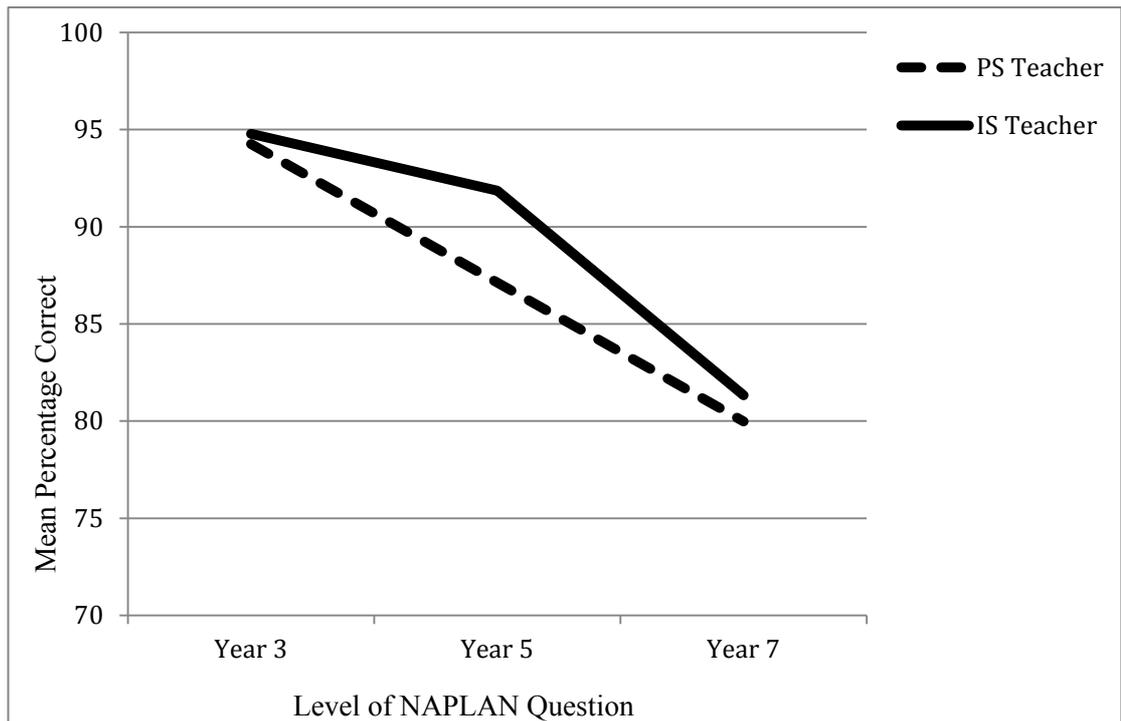


Figure 4.4. Pre-service and in-service mean percentage correct scores (*t*-test group statistics) grouped according to Year 3, Year 5 and Year 7 questions.

As stated, the NAPLAN tests were not normally distributed; so parametric (*t*-test) and non-parametric (Mann-Whitney U test) tests were undertaken to determine differences between pre-service and in-service percentage scores. Using Levene's test for equality of variances, *t*-tests indicated no statistical difference (see Table 4.11). However, Mann-Whitney U test indicated that the Year 5 tests results were significantly greater for in-service teachers (*Mdn* = 63.68%) than pre-service teachers (*Mdn* = 53.32%),  $U = 1279.50$ ,  $z = -2.013$ ,  $p = .044$ .

A repeated measures ANOVA and, due to the normality issue as indicated above, a non-parametric Friedman's test were conducted to determine whether teacher performance was affected by the increasing complexity from Year 3 to Year 7 questions. Mauchly's test of sphericity indicated that the assumption of sphericity had been violated,  $X^{2(2)} = 23.837$ ,  $p = .000$ . Epsilon ( $\epsilon$ ) was 0.765, as calculated according to Greenhouse and Geisser (1959), and was used to correct the one-way repeated measures ANOVA. It was then found that percentage of correct NAPLAN scores were statistically different at the different levels of questions  $F(1.530, 100.005) = 29.113$ ,  $p < .001$ .

To explore the possible reasons for such difference, the following section explores whether relationships exist between demographic features (age and years since graduation, speaking a language other than English, and gender) and grammar

terminology and NAPLAN test results. It also presents analysis that explores pre-service and in-service commentary on teacher education programs.

#### ***4.2.5. Relationships Between Age and Years since University Graduation, Grammar Terminology Scores and NAPLAN Test Results***

One of the key justifications for a more explicit approach to grammar teaching, as contained in the NCE, is that for many decades grammar teaching in a more traditional manner had been absent from mainstream curricula and schools. This may well be problematic, in that those who are charged with teaching grammar may not have been taught it. Whether or not this is the case was examined in the current study. To do this, the key demographic characteristics of age of participants and years since their university graduation were examined to see if they had any relationship to their knowledge of grammar terminology and their NAPLAN test results. Pre-service and in-service teacher demographic characteristics were collated and correlated with the participants' test score results. Grammar terminology scores were normally distributed, but NAPLAN test scores were negatively skewed, which may be due to the elementary nature of the NAPLAN questions, aimed for Year 3, 5 and 7 primary aged students, and therefore the high frequency of correct responses from all teachers.

The correlation analysis shows that years of experience since graduation ( $r = .250$ ,  $p = .007$ ) as well as age ( $r = .316$ ,  $p = .001$ ) are significantly related to the Grammar Terminology test results, with those having a lengthier period of time since finishing university and being older obtaining better scores. However, years since graduation ( $r = .246$ ,  $p = \text{n.s.}$ ) and age ( $r = .123$ ,  $p = \text{n.s.}$ ) were not significantly correlated with the NAPLAN results.

#### ***4.2.6. Comparing Languages other than English for Pre-service and In-service Teachers with Grammar Terminology and NAPLAN Test Scores***

The test score results for the participants were also compared based on their language background. Of the participants 26.72% ( $n = 116$ ) spoke at least one other language in addition to English. Inspection of a boxplot according to this variable revealed one outlier for the grammar terminology test and five outliers for the NAPLAN tests.

However, these were neither data entry or measurement errors and were deemed genuinely unusual values. Scores for the grammar terminology were normally distributed as assessed by the Shapiro-Wilk's test ( $p = 0.156$ ) for the "no" (i.e., not a second language speaker) response, but not for the "yes" (i.e., am a second language speaker) scores  $p = 0.033$ . Scores for the NAPLAN test were not normally distributed for "no" ( $p = \text{n.s.}$ ) or "yes" ( $p = 0.001$ ). Therefore, nonparametric analysis was also undertaken.

Assumption of homogeneity of variances, as assessed by Levene's test for equality of variances, was violated for both grammar terminology ( $p = \text{n.s.}$ ) and NAPLAN ( $p = 0.038$ ) test results. Teachers who did not have at least one second language, scored a lower percentage on the grammar terminology test ( $M = 35$ ,  $SD = 15.81$ ) in contrast to teachers who did have at least one second language scoring a percentage  $M = 40.82$ ,  $SD = 25.4$ . However, Welch's  $t$ -test determined that there was no statistically significant difference in grammar terminology test scores based on the participants' language background  $M = [5.81, 95\% \text{ CI } (15.67, 4.05); t(38.80) = 1.191, p = 0.241]$ . A Mann-Whitney U test was also undertaken to determine if there were differences in the grammar terminology scores of the teachers who have a second language and those who do not.

Again the distributions of achievement scores for teachers were not similar, as assessed by visual inspection. Specifically the scores for teachers who do not speak a second language had a mean rank of 57.21 whereas those who do have at least one second language had a mean rank of 62.05. However, the analysis showed these were not statistically significantly different, ( $U = 1\ 427.5, z = .690, p = 0.490$ ).

In contrast, the teachers on the NAPLAN assessment test, those who did not have at least one second language, actually scored a statistically significantly higher percentage score ( $M = 87.39$ ,  $SD = 11.58$ ) than those participants who did ( $M = 80.54$ ,  $SD = 15.66$ ), [ $M = 6.84, 95\% \text{ CI } (0.625, 13.06); t(42.69) = 2.22, p = 0.032$ ]. A Mann-Whitney U test was also conducted and again this showed a statistically significantly higher result in teachers without a second language ( $Mdn = 90.625$ ) than teachers who did have at least one second language ( $Mdn = 84.375, U = 896.5, z = -2.574, p = 0.01$ ).

#### ***4.2.7. Comparing Gender for Pre-service and In-service Teachers with Grammar Terminology and NAPLAN Test Scores***

Next a comparison was made of the participants' scores for the grammar terminology test and NAPLAN results according to gender.

Of the participants ( $n = 116$ ), 97 were female (83.6%) and 19 were male (16.4%) reflecting the lower number of male teachers in primary schools. Inspection of a boxplot identified outliers for both females and males for both the grammar terminology and NAPLAN tests. Normality, as assessed by the Shapiro-Wilk's test, indicated normal distribution for grammar terminology scores for male participants ( $p = 0.40$ ), but not female participants ( $p = 0.002$ ). With respect to NAPLAN scores, neither male nor female scores are normally distributed ( $p = \text{n.s.}$ ). The grammar terminology test had homogeneity of variances, as assessed by Levene's test for equality of variances ( $p = 0.324$ ). However, for NAPLAN test scores homogeneity of variances was violated, as assessed by Levene's test for equality of variances ( $p = 0.029$ ) and therefore non-parametric analysis was used.

Using an independent samples  $t$ -test for the grammar terminology test, there was no statistically significant difference in the percentage number of correct scores between male ( $M = 36.05$ ,  $SD = 16.46$ ) and female ( $M = 36.65$ ,  $SD = 19.43$ ) participants, [ $M = 4.76$ , 95%; CI (10.04, 8.84),  $t(114) = 0.125$ ,  $p = 0.901$ ]. A Mann-Whitney U test was also run to determine if there were differences in grammar test achievement scores between males and females. Although the distributions of the achievement scores for males (mean rank = 58.26) and females (mean rank = 58.55) did not appear to be similar, as assessed by visual inspection, they were not statistically significantly different, ( $U = 926$ ,  $z = .034$ ,  $p = \text{n.s.}$ ).

Welch's  $t$ -test indicated there was also no significant difference between percentage number of correct scores in the NAPLAN test for males ( $M = 80.56$ ,  $SD = 19.84$ ) and female (86.37,  $SD = 11.33$ ) participants, [ $M = 5.91$ , 95%; CI (15.99, 4.16),  $t(19.107) = 1.228$ ,  $p = 0.234$ ]. Similarly a Mann-Whitney U test found no statistically significant difference ( $U = 1\ 013$ ,  $z = 1.085$ ,  $p = 0.278$ ) for male teachers (mean rank = 50.22) and female teachers (mean rank = 59.44).

#### **4.2.8. Summary**

This section provided evidence that in-service teachers generally performed better on the grammar terminology test than did the pre-service teachers. However, there was no statistical difference in NAPLAN scores. Even so, no participant scored 100% on the grammar terminology test and only eight participants (N = 116) scored 100% on the NAPLAN test questions. While there was no statistical evidence that gender was a factor on mean test scores for either test, correlation analysis showed a relationship between years of experience since graduation and an improved performance on the grammar terminology test. Teachers who spoke only English, and did not speak a second language of any kind, performed statistically higher on the NAPLAN test questions, yet not the grammar terminology test.

#### **4.3. Section Three**

This section explores teacher beliefs and conceptions of effective grammar teaching that emerged from the qualitative data. Specifically, pre-service and in-service beliefs are examined, exploring whether or not, and if so how, an “*Explicit and meaningful teaching of a clear and shared grammar, empowers and provides individuals with the capacity to express themselves*” (See Table 3.6. for the Open and Axial codes from which this theme was derived). Using thematic analysis (see Section 3.6.2) a number of categories of beliefs emerged from the data. These are outlined in detail next.

The first belief centres on the importance of national standards and teaching grammar. The second category of belief concerns the mutual benefit to first and second language development of the use of common grammar terminology. The third category focuses on teachers’ beliefs about methods for grammar teaching. The next category relates to the teachers’ perceptions about the failures of the NCE to adequately support grammar teaching and learning. The final category concerns those external factors that influence a preferred grammar pedagogy and how these can prevent effective pedagogical practices in schools.

### ***4.3.1. A National Standard and Teaching Grammar are Important***

Pre-service teachers and in-service teachers commented that the NCE was a helpful resource and provided clear and articulated benchmarks that are applied across Australia. As such, it is a resource that facilitates lesson planning. For example, some participants expressed it this way:

PS5: I think it covers all the bases; it's pretty comprehensive and relatively simple to plan to.

PS2: It is a good thing because it's more specific. Now it is easier for them (teachers)...this child should be doing exactly this in Grade 4.

IS4: I think owning an Australian version of what is sort of received grammar, what is the accepted, what's the recommended, what are we aiming for, and I think having it outlined in a curriculum statement is a good idea because I think it does help everyone to have a go to position in a way...a way of benchmarking yourself.

IS2: I guess they are putting a focus on grammar to try and lift the literacy levels, which are falling; I think they've tried to break it down...I don't remember grammar being this clear and explicit.

Both the pre-service and in-service teachers connected the concept of an Australian standard with their belief that grammar provides structure, allowing students to put "the right words in the right way" and to communicate their ideas clearly. One teacher explained this using the analogy of "Legoland":

IS3: These words are your Lego bricks...and you have to learn those bricks and how they fit together.

The importance of word order and sentence structure, including labeling parts of speech, was described by the majority of the participants – both pre-service and in-service teachers (n=9). For example:

PS2: The ability to speak and write in a non-colloquial way, in more of a formal situation; in opposition to casual talk that is required for interviews, job situations. So it's speaking and writing.

PS4: Sentence structure. When I think of grammar it's more like the tenses, past tense, present tense and then nouns, verbs, adverbs, adjectives, language features. That's what I think of when I think of grammar.

PS6: Grammar provides students and teachers with the opportunity to discuss language. Once there is a common language, teachers and students can discuss word, sentence and text structures in a playful way, analyse the work of others, and reflect on the best way to communicate...whatever it is they're trying to communicate!

IS1: Grammar is the overall structure of the language. It is everything that holds it together – the punctuation, the correct parts of speech, subject / verb agreement, spelling etc.

IS2: I think grammar is just part of people's speaking in a way, speaking clearly so that people can understand what you say and what you write. If it's not grammatically correct, people won't understand you correctly.

IS6: It's about the system of language...how everything fits together to make meaning.

#### ***4.3.2. It is Beneficial for both First and Second Language Development to use a Common Grammar Terminology***

Several pre-service and in-service teachers (N = 5) also described their belief that second language teaching promotes grammar knowledge and improved understanding of the first language, so long as the language teaching is more than just a "language experience" (e.g., as might occur in cultural studies programs). Additionally, since the introduction of the NCE, language teachers had noticed a shift in students' knowledge of grammar terminology:

PS5: I've been in a class where the teacher was German and she spoke fluent German, and she would get her mum in every week, and they would say and write sentences every week and they would break it down, translate it, and talk about the grammar in relation to that. And they would talk about how German was different to English, and that was so powerful... it is a powerful thing to be able to compare languages.

IS4: ...because your awareness of different tenses and different sentence structures is a transferable thing, and I think that if you learn a second language and you haven't encountered grammar in your own language, then it can be much more threatening and it can become a barrier to learning.

IS2: Then the language teachers that worked here said they noticed a dramatic difference in language classes because obviously when they're teaching language they are constantly talking about sentence structure because it is different in different languages. And, prior to these last few years, the children hadn't got a clue what they were talking about.

IS3: It works both ways; but then when you learn a new language, which is not your mother tongue, it is going to be beneficial to learn grammar, because you almost need it to learn another language, and it becomes fun, because it's an extra thing...when I started teaching French in Australia over a decade ago, if I was teaching high school students, if I was talking about verbs and things, I would get blank stares, and, not from all the students, but mainly. But now I can go into a Year 2 classroom and talk about verbs and they know

exactly what I mean; I had to adjust my teaching when the new curriculum came out and so I revised what that these students knew.

Therefore, the results of the qualitative analysis suggested that both pre-service and in-service teachers believe that learning a second language in a meaningful way could be a rich experience, and that grammar knowledge used in this second language-learning context would be transferable to the first language. However, this belief was not universal, and one in-service teacher raised concerns that pre-service teachers, who had not experienced an English-based primary and secondary education, may not have the literacy skills required to teach primary school aged children English as their first language.

IS4: Well sometimes they actually can't write English and they haven't been to Perth in Australia so they haven't necessarily got that, they haven't had that...what the NCE has offered even on a basic level...(that is important) Especially, if they are going to go and teach students to read and write.

#### ***4.3.3. Grammar Teaching should be an Explicit, Eclectic and Meaningful Pedagogical Approach***

One of the experienced in-service teachers (IS1), jokingly stated, in response to the question about the most effective way to teach grammar, that “You beat it into the little bastards.” The implication of this is that the teachers believed many students would not want to learn grammar, but that it was important to do so. However, the content was such that teachers have to work hard to make sure their students develop understanding. To achieve this, explicit teaching was needed.

Both the pre-service and in-service teachers in this study, in general, agreed that explicit grammar teaching supported children's learning. This was achieved through an eclectic, but meaningful approach, whereby correct usage is modelled, issues discussed in class as they arose, and where specific skill development occurs by teaching children directly about aspects of grammar. These are then applied in their own writing or discussed in context.

Overall, the idea of explicit teaching of grammar was well supported by both pre-service and in-service teachers who acknowledged that “knowing grammar” was integral to effective teaching and that, sometimes, opportunities for learning were not maximised.

PS5: Teaching philosophy is “I do, we do, you do”, so you have to have it down pat...all our writing is modelled. If you can’t get that right, when you’re showing them in Year 1 or Year 4, or whenever, how are they expected to know that, you know?

PS3: So those children are still busy in mastering something, while the teacher is delivering something new to the small group. And then, whilst that small group is sent to do their follow-up experiences, then the next group is then taught again, whatever their stage is of English or grammar, the language that it is, whatever the lesson is... because they are separated in that way.

PS4: Well, you have to know your content. Sometimes, I probably don’t do it enough, to be honest...The simple things I teach in Year 3, so the simple things I can correct, but if I’m reading a piece of my student’s writing in class, it’s not something that comes to mind at first, I don’t think about it, because you understand the gist of what the student is trying to say even if it is grammatically incorrect, and so you can just keep going on with it, the lesson, even though you probably should have stopped it and say, look, this is probably a better way of saying it.... I’d love to be able to (discuss grammar) more frequently throughout all lessons.

PS1: So many kids have no idea how to actually start a sentence, or how to write a paragraph, because they haven’t had the time to have the dedicated lesson on how to do it properly.

IS3: Oh yes, absolutely, model correct grammar.

IS5: For sure, teachers need to know what they’re teaching... and our school has a very big drive on direct instruction. So wherever the kids are at, we will directly teach them, explicitly teach them the next skill.

IS5: I do think you’ve got to explicitly teach things but it’s only of value once they are using it independently within their writing or comprehension.

IS6: An explicit lesson provides the opportunity to teach a shared language to enable students and teachers to talk about language. It’s like the platform on which teachers and students, over their school careers, can analyse and discuss strengths and weaknesses in the communication of others, and reflect on how they can improve their own communication skills whether it be writing or speaking or whatever...of course to do that, the teacher needs to understand it in the first place and I’m not sure many know it well enough.

However, while teachers agreed that teaching should be explicit, there was also a majority consensus that grammar lessons alone were insufficient. Pre-service and in-service teachers described “functional exercises” (IS5), “Contextual exercises” (IS4) integrating grammar lessons and giving feedback as key components of grammar teaching.

PS2: You don't teach grammar in isolation, "Right, kids, get out your grammar book" which they actually do at the moment. Grammar should be taught in context with their writing... The children need to see at the time what they are doing wrong and how to do it better.

PS5: ...you don't have a lesson on grammar per se, its more built into modelled writing or modelled reading.

PS4: Yeah, I think grammar is in everything and that the way you should teach it is within everything, it's not just a standalone thing.

IS5: Functional exercises; they need to understand what words are and what words to put where; you're talking about kids being able to form a sentence, use correct punctuation, make sure they've got every part to a sentence.

IS3: A bit like IT, you don't want to teach computer you want to integrate it and grammar is the same... it is integrated and not taught as a single standing subject and that is a good way to go.

IS4: I think teaching all of those things in relationship is really important as well, because that's what you have to do when you write...functional exercises, contextual exercises, and feedback...looking at someone's work and highlighting aspects that could be improved or helping them re-write something, so you're actually showing them what they can change and how that can affect their communication skills.

IS2: I do think you've got to explicitly teach things but it's only of value once they are using it independently within their writing or comprehension.

Pre-service and in-service teachers also commented that grammar teaching should be fun, should begin early and then increase in complexity as children progress through their years of schooling.

PS3: Grammar is an abstract concept that requires hands-on materials to be taught from an early age, so that when they're older they can understand it deeper... There's so many contradictions to the rules that the earlier we expose children to, even the most simplest concepts of grammar, is very important, I think, for their further understanding of it in their later years.

PS5: They've got to have quite a strong understanding of the really, really basics, some children are already there but there are so many that need that real foundation to be able to make any sense of that.

PS1: Start from the lower years, when you're actually teaching them to read and write, when you're writing a sentence or a paragraph, you're telling them how you write a sentence or a paragraph, you need to be telling them why that's how you write a sentence or a paragraph and why that is right over one of their simple sentences. Then put together with the words all over the place or punctuation anywhere or that sort of thing, and then if that happened and more emphasis was put on teaching grammar, then once kids got to Year 6

they wouldn't be confused by simple concepts, really, because they've been taught that from the start.

IS3: I say the words in "grammar talk"... really it should be playful, so you need to start playing with the language... So making it playful, a game, to put this language together... So you really start as early as they can read. You start to name the words, it's a verb, it's a doing word. So if you start that really early it becomes second nature and they don't really think of it.

IS5: I was thinking: they can do that, it's easy, preprimary can learn that. I came across several teachers that thought it was cruel to be teaching preprimary students how to read and cruel to make them write... It's quite interesting, it's fun, and now I'm starting to see it in their writing.

Therefore, while pre-service and in-service teachers appear to value grammar teaching, think it is important, and that it should be taught explicitly, they also indicated that it should be applied in a contextual and integrated manner.

#### ***4.3.4. Perceived Failures of the National Curriculum: English to Adequately Support Grammar Teaching and Learning***

Pre-service and in-service teachers expressed a range of views on the effectiveness of the NCE with respect to improving grammar teaching and learning. While some teachers, as stated previously, suggested that it was well-articulated, specific and provided an Australian standard that assisted with quality planning, this was not a view shared by all. Critics of the NCE suggested that it lacked specificity which allowed it to be too open to interpretation and that the grammar terminology was not accompanied by a clear pedagogical approach. Others described their belief that it is confusing and not "kid-friendly", and that grammar should be given a separate and dedicated section. For example:

PS1: So there does need to be more in the curriculum, more specification, that it is its own thing and needs to be dealt with on its own... so it does have the time and emphasis on its importance anyway, to be able to be literate.

PS4: I think that the National Curriculum doesn't really have its own... it's like grammar is in everything, it doesn't stand on its own. It's not like explicitly mentioned.

PS6: It's like they've tried to incorporate grammar into the National Curriculum, but they haven't worked out a clear type of grammar, so the terminology is quite complex and confusing. They've tried to make it explicit, but they've failed to make the system of grammar to be taught clear so that teachers across Australia can teach it consistently.

IS5: The National Curriculum, I don't think gives you enough detail to know exactly what to teach in each of the year groups; because every school has a different take on it, so if they've got a National Curriculum for everyone to follow then I don't think that the National Curriculum has enough detail about which year group is taught what skill...some of the writings under Year 1 and Preprimary I think...what the hell? How do you interpret some of them? Some of it is just ridiculous; sometimes when we're planning, we're actually nutting out what the damn things says, what does it mean, so then we have to go searching to find out what they are talking about. Some of the language they use is like, what?

IS6: It's a bit airy-fairy; quite broad, can be interpreted in different ways and different schools, different teachers...It's vague; it can be taken in so many different ways.

Although, two of the participants had noticed changes in student knowledge of grammar concepts (as described above), many of the other participants raised concerns that the NCE has not resulted in a change in student knowledge of grammar. Nor has it affected how teachers deliver grammar teaching in classrooms. Several pre-service and in-service teachers suggested that while the NCE had resulted in conceptual change, it had also impacted on their levels of confidence, as the language used in the document was confusing to teachers and students. In fact, there appeared to be an inverse relationship. As the language became increasingly complex, teachers' levels of confidence in teaching grammar decreased.

PS1: ...even Year 6s they don't know that's why a sentence is written that way that it should be. So they can make up a sentence and know that it makes sense but they don't know that's why it makes sense.

PS3: I feel confident that now that I've gone through some Montessori training that I can teach it in a way that I know the child will understand it and work through it and won't have the same level of confusion.

PS4: That's it; I don't think it's a big focus in the Australian Curriculum...I don't think the National Curriculum has impacted my teaching of grammar or how I value the teaching of grammar.

IS2: ...when I went to school I didn't learn the level of grammar that I'm having to learn now in order to teach it now, to this level. PD I've been on in the last year or two makes me lack confidence in teaching grammar...They're saying the level, the level of the kids I'm teaching, they are saying they should know this, this, this, this and this...and yet I'm finding they don't know a lot of the stuff that's required way prior to that. Therefore I can't teach them the stuff that they're saying they should be being taught so you go, oh shit, we must be doing it wrong or something...it's the more complex ones that I've had to really think about...like nominalisation. Like, in the first

15 years of teaching I didn't know anything about nominalisation...and yet I still think I could get kids to write reasonable sentences and I didn't even know that.

IS6: I've had to spend time teaching myself the terminology first, and then figuring out how that will actually help to improve student learning. The more I learn the more I realise I don't know and so sometimes I actually worry that I'm not teaching it right or certainly not well enough.

In addition to concerns raised on grammar contained within the NCE, both pre-service and in-service teachers indicated that grammar teaching was not always taught well or regularly in schools.

#### ***4.3.5. Perceived External Interference with "Preferred" Grammar Pedagogy***

As indicated above (Section 4.1.1) in-service teachers raised concerns that the teaching of grammar could be boring and that pre-service teachers had the perception that grammar teaching was not a priority or a focus in schools. Three of the pre-service teachers interviewed were also critical of pedagogical approaches that had been adapted in schools, specifically, the use of worksheets and grammar programs:

PS2: Somebody up there is saying: this is how we have done our school development plans, and we have these books and do grammar once a day...which is not the right approach and the teachers know it and the hierarchy don't know it and that's because they're teaching to a test.

PS3: I don't think worksheets are appropriate; I definitely see too much of that. There are a lot of methods that are being applied these days that are not developmentally appropriate. For what the child's learning abilities are and their needs.

In addition, all the pre-service and in-service teacher participants commented about their concerns regarding the impact of a "standards focus" and the "crowded curriculum" on grammar pedagogy in schools.

PS2: The only thing in regards to grammar is that I see teachers teaching to national standardised tests, that's the major thing I think about. It's not even about the curriculum, it's about teaching to the test...the hierarchy won't trust that the teachers will do it and they want evidence that the teachers are doing it, by saying, right, this is the book, this is the page...I think teachers are trying to survive. Trying to get through the day-to-day.

PS5: Oh my gosh, there's so much to fit in, and the days just go, and especially with the Year 1s they have such short attention spans and you don't want to do anything serious in the afternoons because they're just hopeless.

PS1: It's right down the bottom of the hierarchy I would think and it's left down the bottom. When you're trying to fit everything into the day, half hour grammar lesson, it will be shortened or skipped to try and get what is necessary...what you want to do but what you have to have to get done, because you're told you have to do all these other things, so it is put to the back, but really it does need more time so children understand their language.

PS3: I found myself doing the worksheets and...um...it wasn't just that, but time was so rushed and content had to be put in, that I could very easily identify the children that needed more time and assistance in understanding, but I couldn't give them that. That was because of the pressure that was put on me as a teacher to deliver the curriculum and all that I needed to do as well as the assessment in order to move onto the next stage.

PS4: Like I said before, sometimes when the kids say something incorrectly, or if there was a teaching moment, I don't take advantage of that enough because you have so much content that you want to cover. And time is not your friend at that stage, so you just skim over it. You've got to keep going with whatever it is you want to say. I feel like there are so many other subjects, maybe we feel pressured that we need to focus on more. I feel like the subjects that I can easily skip over are the teaching of grammar and handwriting...I feel that those are the two subjects that kind of get lost. I think the timeframe is the biggest factor, not the National Curriculum itself.

IS2: We have about 5 periods of English a week. Two of those periods are now explicit skills English lessons where we do spelling, grammar, punctuation and so on...because apparently from NAPLAN results, and things like that, we had these massive gaps that, things that we were weak in. So, we're putting in skills lessons where we're following different programs and this and that...Well, apparently, certainly from a grammar perspective, the last year's NAPLAN were all getting better and better, but I just wonder if that's because we're teaching them to answer the questions...I think the fact that there is such a crowded curriculum we just don't have time for kids to write, edit and rewrite, and all of that.

IS5: There's lots of jargon in teaching in as you know and unless you understand what the jargon is it's difficult to get your head around it... No, I don't have the time. Sometimes I will look at samples of work to figure out what they are talking about and then I can go, right, I can apply it this way...and actually do that.

IS6: It's a combination of issues. There is so much that has to be taught across so many subjects that there really isn't the time to do things well. Grammar, especially, is something that you try and insert when you can, but there just isn't the time to make it rich and meaningful. I hate to say it, but I've basically sold out because so much time is spent providing evidence of teaching rather than actually having the time to teach concepts well. So, in the end, you have to teach to the test to make sure they do well on NAPLAN

questions, but whether that means they can apply grammar concepts to improve their writing is dubious to say the least.

#### ***4.3.6. Section Three Summary***

Section Three of the Findings provides a description of pre-service and in-service views on the adaptation of a national standard, benefits and challenges for grammar teaching and about the NCE more generally, but also suggestions that second language teaching supports grammar development in the first language. Teachers also provided suggestions about how grammar teaching should occur in schools and criticisms on how it is currently being done.

#### **4.4. Section Four**

This section contains two further categories of findings emanating from the qualitative data. The first category concerns the belief articulated by teachers that “Pre-service Teachers are Unprepared for Grammar Teaching”. Also encapsulated in this category of beliefs is the sentiment that “Pre-service Teacher Grammar Knowledge is Too Low” and that “Institutions are Failing to Prepare Pre-service Teachers adequately for Grammar Teaching in Classrooms”. Finally, the remaining category of findings includes pre-service and in-service teachers commentary on their perceptions of how pre-service institutions could better prepare beginner teachers to teach grammar in Western Australian classrooms.

##### ***4.4.1. Pre-service Teacher Grammar Knowledge is Too Low***

As stated previously, four of the six beginner teachers found articulating their conceptions of grammar difficult, while several in-service teachers indicated that the level of grammar they are having to teach students is increasing in complexity, that it “...isn’t kid friendly” (IS2) and “I do know that we get very confused...” (IS2). Teachers were also quite critical of colleagues: “I mean there has been plenty of teachers I’ve worked with that have had to go and teach themselves about grammar...I know that at one school that I worked at they had somebody in as the English Literacy Co-ordinator who actually had never done writing on her own in front of the class” (IS5). The concern of these teachers appears to be that literacy

standards are low and that this has been exacerbated by language pertaining to grammar in the NCE being too complex for use in the classroom. A perception that this would particularly affect beginner teachers who lack the experience to distil concepts appropriately for primary years teaching and learning is illustrated in the exchange below:

IS5: There's too much (in the National Curriculum), and it goes beyond, I think, you start reading some of the contextual understandings and you go, you know what, stuff all that crap, what do I actually need to teach them. Some of the writings under Year 1 and Preprimary I think...what the hell? How do you interpret some of them? Some of it is just ridiculous.

Interviewer: So your concern is that the concepts are such broad concepts, that the problem is how do you nail that down to a lesson?

IS5: Yes! For a five year old. I think that is half the problem...if I'm struggling to understand what is it they want me to do, what is a 19 year old who has not had a huge amount of life experience going to take on that? I don't know.

In addition to "life experience", one in-service teacher who had recent experience teaching education students at university, observed that a student's background (including international students recently arriving in Western Australia to study education, schooling and / or aptitude) directly related to their literacy levels and concomitantly their capacity to teach children:

IS4: ...someone who has a background in a higher school like one of our academic schools or a private school, they will be able to write at a certain level that content wise the work will be richer; but students who haven't been to one of those schools may not yet have the capacity to write down their ideas let alone form the sentence correctly around that idea...(So), One is the school that they've been to and the training they have received and two is that particular students, either their aptitude or their effort level...someone coming from a non-English speaking background, it becomes even more complex. Especially, if they are going to go and teach students to read and write.

With respect to teachers' knowledge of grammar terminology and concepts, one in-service teacher noted that she "...was a bit taken aback when I first started, that, to realise, that what I was thinking was a given, was actually not a given..." with respect to teachers' knowledge of grammar terminology and concepts. However, with the inception of the NCE, she explained that, "I can definitely talk to teachers now and their knowledge has increased" (IS3). However, the majority of the in-service teachers raised concerns either that entry requirements into pre-service

education courses are too low and/or that skill levels were insufficiently improved upon by the time beginner teachers left tertiary institutions. For example:

IS1: Beginner teachers and students on prac., in my experience, have woeful literacy levels. I've often had to edit reports written by new teachers and it is a perennial concern that some teachers don't appear to have even the slightest understanding of basic sentence structure or when to use a comma. This includes English teachers. It is a genuine concern of mine that I spend a lot of time having to teach new teachers how to write a sentence correctly let alone teach their students how to.

IS5: I know that teaching is one of the least, the lowest, grades entrance to get in at university, and do people choose that because it is easy to get into? ...And she (a relative) got in (to pre-service education) and she was going to be teaching kids and I thought...that's wrong. It's really wrong.

IS2: I'm not sure people need to understand the terminology but people's literacy levels need to be a lot higher. Like I know some people, reasonably new graduates that have worked at \*\*\*\*\* in the last few years, some of them can't even write or spell...It's a concern that they've managed to get through.

IS4: If someone is not able to write an essay and not able to communicate and not able to spell and not able to punctuate and not able to construct sentences that needs to be addressed...because what they were putting on paper was not English. And, um, they were headed for primary school teaching and I just think that is a major, major issue.

IS6: I remember at university one of my colleagues said that compared to other degrees, primary school degrees were as easy to obtain as finding one inside a cereal packet. What worries me is that it appears as though secondary students can effectively fail English requirements and then still train to become teachers. It is crazy to me that these people are teaching children and, I think, undoubtedly has a knock-on effect of lowering community expectations of what teachers are capable.

One pre-service teacher also raised concerns over literacy levels of her peers:

PS1: I would never even have thought of it as an issue or how it should and why it should be taught until I got to uni and I met all these people in my class who were, actually, I think quite illiterate, can't speak properly, write properly or spell, but also have no idea where an apostrophe belongs or how to form a sensible sentence.

However, most pre-service responses focused on providing examples as to why English tests conducted to ensure a minimum benchmark of literary levels among beginner teachers by institutions were ineffective, inadequate or unhelpful in preparing them for literacy teaching:

PS5: I mean we need to know how to use grammar correctly...but we don't need to be experts...it felt like it was really extraneous to the needs of teachers, but also it didn't make much sense. It was a bit of a farce, we were sharing answers because some of the answers weren't worded well...it didn't really contribute anything or demonstrate that we were particularly competent.

PS4: We did have to sit an English and Mathematics test and you had to get a minimum to pass that test. But I don't know how useful that was because after you finish the test you sort of walk away with nothing. You don't really remember anything or get anything out of it.

PS6: I remember I sat a Literacy and Mathematics test at university, which was relatively easy to pass. However, what never happened was a situation in which I had to explain to a student how to improve their writing...that didn't happen till I hit the classroom and I was responsible for the learning of 26 children and that's when I realised, shit, I don't know anything, what did I actually gain from literacy units at uni?

These descriptions show the concerns of both pre-service and in-service teachers about the inadequacy of beginner teacher knowledge of grammar terminology and grammar concepts.

#### ***4.4.2. Pre-service and In-Service Teacher Perceptions of Pre-service Education and Grammar***

Several key concerns were raised by pre-service and in-service teachers with respect to how beginner teachers were prepared for grammar teaching in classrooms. One pre-service teacher commented that there was “really very well little focus on correct grammar and that wasn't a real high priority in university. It didn't seem to be a strong priority in people's writing and speaking” (PS5). This was supported by IS4 who suggested that universities needed to take a greater responsibility in preparing beginner teachers for teaching grammar to primary children:

IS4: I think once you let somebody into a training course, the result of which will be them teaching young people to read and write, I think there is a responsibility on the institution to make sure that those people go out of there with a certain set of skills and I think that needs to be integrated at all levels.

One in-service teacher suggested that universities are “doing a good job at telling you how to teach and showing you, modelling, how it's done...” but that, in contrast, “it's the reality of when you go into the classroom that it's sad. I think universities are way ahead of the schools” (PS2). However, five of the six pre-service teachers

were highly critical of the grammar pedagogy and grammar knowledge experienced and presented by lecturers at university:

PS5: I think the literacy units I had were so weak, and very disjointed, and didn't flow, and a big focus on reading, but very little focus on writing on grammar or modelling...there were three literacy units and I found them extremely unhelpful and I have learnt way more in my first term of the classroom about teaching writing, reading, speaking...English in general, than I would have possibly in university.

PS1: I would have to teach my lecturers for instance where an ownership apostrophe and such would go and how the sentence they wrote didn't make sense or how they say, no it needs to be written this way, I would say no it doesn't, it goes this way. So even the lecturers weren't great.

PS3: We have literacy units when we're studying in university, and within those literacy units you have to write an assignment about the importance of literacy and how children learn best and all sorts of things. And, in the books they will give you examples of activities you can do with children to teach a particular concept. But, something they fail to do, which ultimately they design their teacher practices for...or teaching placements, is that so the students can learn how to teach to the students of that age that particular concept - just giving the activity isn't enough.

PS4: Yeah, I don't remember having a grammatical component discussed at all at university. It was more like spelling, reading, writing...we did speaking and listening, we followed the First Steps as a textbook at university and all of our assignments were based on those textbooks, and there was nothing really about grammar.

PS6: I remember there being a focus on reading and a little on spelling. But the literacy units left me wholly unprepared for actual literacy teaching and I don't particularly recall any focus on grammar. Certainly not on explaining to a child the "why" and "how" to improve, for example, their writing. I just didn't gain any knowledge on grammar from university at all.

Pre-service and in-service teachers also suggested that short-comings in pre-service education were in part due to perceived systemic issues including low entry requirements and the change in the way universities work with students, for example: "because it's about people passing, people completing, you get money from the government when people complete degrees" (IS4). It was the perception of some that it was also the result of tertiary institutions having a "crowded curriculum" – an experience they share with schools. One pre-service teacher suggested that bridging the divide between academic studies and preparing beginner teachers for the reality of classrooms could be achieved by selecting lecturers who were still teaching in primary schools:

PS5: ...they need to have teachers teaching the units instead of academics teaching the units...they knew their stuff, obviously, and could do great research, but they didn't seem to be able...we needed it modelled to us, how to teach these things...it was so evident when you had somebody who had recently been in the classroom as a lecturer or as a teacher rather than someone who had been doing fantastic research.

Several pre-service and in-service teachers commented on this issue, describing a divide between tertiary education and the classroom:

PS2: When I get into the school no one is going to care what I've learnt from that book, they're only going to care that I do exactly what I'm told.

PS3: I found that when I was doing my pracs I was...all the theories...and this is what is very unfortunate, all the theories that we learn at university, you know your Reggio Emilia, project based learning, how Gardner's multiple intelligence theories...they're all very inspiring and when you go out into a school on your placements, you want to apply them and see how you can make learning more exciting and fun, and also more meaningful for the child. But, unfortunately, you find yourself just perpetuating the system as it was, because the mentor teachers that you find yourself under, as a teacher, have the final say and will often criticise the way that you do things...and I found myself becoming the teacher that I didn't want to be.

PS5: That is where you learn things and apply them, but I've been with the literacy specialist in the school and I have learnt so much more than I did in university. It's hands-on; you really need to get in there to learn how to do it.

PS4: To be completely honest, what I feel that I've taken from uni is very little. I've taken a lot more from going on practical experiences, like to different schools, sitting in on lessons, looking at how teachers teach. I've taken away more valuable things from those experiences rather than my actual classes that I sat in uni.

PS6: Of course entering the classroom for the first time as an independent teacher there will still be learning and growth. However, I feel strongly that expectations of the content knowledge a teacher should have need to be considerably higher so that it's one less thing we have to worry about when we're standing in front of our own class for the first time.

IS5: To be perfectly honest, when I first started teaching, I learnt a lot about grammar that I wasn't taught at school. I went on courses about language and how language is developed and so we needed to...you know, the underpinnings of language itself we weren't taught. If that was taught better than actually applying the grammatical skills to it would have been better. So there were lots of things that I learnt as a student teacher, or even as a graduate teacher with the school putting you on courses, which I think our kids aren't being taught.

However, while pre-service and in-service teachers described concerns over pre-service education, there were also suggestions for how some of these issues might be addressed. For example, IS4 suggested the idea of a mentor, someone's "job to make sure that the people who get into teaching degrees go out not replicating bad patterns, not replicating their problematic language skills" (IS4).

Other suggestions for improvement focused on the way assessments are structured. For example, "Some units, if you haven't completed one piece of work, even if you get 50%, you still fail" (IS4). Another assessment structure this teacher thought might provide a good safeguard included limiting group assignments. The reason is that an individual working in a group might be able to lean on their colleagues rather than have to rely on their own aptitude and abilities.

PS5 suggested that when at university she "Needed to see these things (methods for grammar teaching) in action...then question why it does / doesn't work" (PS5) in the classroom. Whereas PS3 suggested that the problem was not what was being taught at university, but how. She indicated that pre-service teachers needed to be taught how to manage tensions such as testing expectations and the "crowded curriculum" by thinking about how a school day can be structured to relieve some of those pressures:

PS3: Grammar is an abstract concept that requires hands-on materials to be taught from an early age so that when they're older they can understand it deeper. But in order for that to be done effectively time needs to be given in a way that isn't an extra an hour in the day for language but the whole system and the way the day is structured and the pressures that are being put on both teachers and students. I think it's the whole system unfortunately, not so much necessarily what's being taught but how.

PS4 noted that at the very least grammar knowledge should be "...incorporated in their literacy units...Just having a brainstorm, a recap of all the grammatical knowledge that children should know in primary school would be really handy."

Developing this further, IS4 suggested a much more deliberate, wide-reaching approach:

IS4: It needs to be systemic, worked into the system and needs to be seen as something important that each student walks out with these skills and if they don't then something is done about it.

#### **4.4.3. Section Four Summary**

Section Four of the Findings presents pre-service and in-service concerns that beginner teachers lack the requisite knowledge of grammar terminology and concepts when entering classrooms as beginner teachers. Teachers referred to perceptions including entry requirements into pre-service education may be too low, literacy tests to ensure minimum standards of literacy for pre-service teachers ineffective, and that skill levels were insufficiently improved by the conclusion of pre-service teacher tertiary experiences. This section concludes with suggestions from teachers on how pre-service institutions might better prepare beginner teachers.

## Chapter 5: Discussion and Conclusion

There is little doubt that the NCE (and subsequent state curriculums) and the curricular reform process in general have focused attention on grammar and grammar teaching. However, as noted by Fontich and Camps (2014), “the place held by grammar teaching has been, and continues to be, a source of controversy” (p. 599). The aim of this research was to determine what is necessary in terms of pre-service teacher education regarding “grammar knowledge” and “grammar teaching”. The discussion below explores similarities and differences between pre-service and in-service teacher perspectives including the value of teaching grammar, how it is conceptualised, and preferred pedagogical approaches. It outlines concerns by pre-service and in-service teachers that tension still remains between pedagogical theory and practice in classrooms. This includes potential gaps in teacher knowledge of grammar terminology and concepts derived from the NCE, with implications for policy-makers and curriculum writers. Finally, pre-service institutions are challenged to consider changes required to provide beginner teachers with the knowledge and confidence to enter the profession well equipped to teach grammar according to the NCE or, alternatively, lead change toward providing beginner teachers with opportunities to study, strengthen and broaden metalinguistic knowledge.

### 5.1. Teachers Value Grammar and NCE Limitations

Qualitative analysis confirmed that both groups of teachers support “Explicit and meaningful teaching of a clear and shared grammar” based, it seems, on the belief that it “empowers and provides individuals with the capacity to express themselves.” However, when their perceptions were examined quantitatively, the results showed that the pre-service teachers placed a statistically greater importance on teaching grammar to students than in-service teachers ( $M = 0.364$ , 95% CI [0.09, 0.64],  $t(113) = 2.648$ ,  $p = .009$ ) connecting it with the role that they believe it plays in developing writing. Similar studies have found that pre-service teachers at primary and secondary level value grammar teaching (Cajkler & Hislam, 2002; Turvey, 2000). Correlational analysis also supported this, showing a positive relationship between the idea that teaching grammar to students is important and teaching grammar helps students to become better writers ( $r = .743$ ,  $p = .000$ ). While these findings indicate

that in-service teachers did not deem it as important as pre-service teachers, the overall results show that both pre-service and in-service teachers agree that there is value to teaching grammar. These responses might indicate a shift in teacher beliefs and understanding about the role of grammar and, consequently, could affect how grammar is enacted in classrooms (Clark, 2010).

While there is general agreement by teachers that teaching grammar is of value, the findings also suggest that the NCE may have fallen short in achieving an Australian standard. That is, although the Australian curriculum writers may have had a clearer rationale, when introducing grammar into the NCE than other Anglophone countries (Myhill & Watson, 2014), the decision to include a fusion of traditional Latinate and functional terminology to bridge a gap between experienced teachers and beginner teacher knowledge of different systems (Exley & Mills, 2012; Mulder, 2011), may have caused unnecessary complexity and confusion for teachers across the spectrum of teaching experience.

These layers of difficulty were exemplified in the current study with both pre-service and in-service teachers expressing concerns over the increasing levels of complexity of grammar required by NCE and also their confusion over different grammar books, methods and practices appearing in schools (PS1; PS3; PS4; IS2; IS6). Pre-service teachers and in-service teachers (PS2; PS3; PS5; PS1; IS5; IS6) expressed concerns that this resulted in teachers turning to worksheets and schools turning to “quick fix” approaches in order to meet test requirements (PS2; IS6), a suggestion supported in the literature by Dunn and Lindblom (2003). Furthermore, similar to studies showing a lack of confidence in defining grammar in the UK and USA (Hislam & Cajkler, 2005; Petruzella, 1996; Pomphrey & Moger, 1999; Qualifications & Curriculum Authority, 1998; Watson, 2012), four of the six beginner teachers found it difficult to articulate their conceptions of grammar with any clarity. Research in Western Australia has also suggested teachers do not feel confident about teaching grammar when they complete their training, similar to findings in this study (Louden & Edith Cowan University, Department of Education, Science and Training, National Literacy and Numeracy Strategies and Projects Programme, 2005). Also, with respect to traditional grammar, primary teachers felt less confident in contrast to their knowledge of genre and text types (Hammon & Macken-Horarik, 2001). Five teachers expressed that the level of grammar they are having to teach is increasing in

complexity and affecting their confidence in teaching these concepts well (PS1; PS3; PS4; IS2; IS6). Teachers also criticised the NCE, suggesting it lacked specificity and was too open to interpretation (PS1; PS4; PS6; IS5; IS6) resulting in inconsistency with different concepts and approaches taught in different schools. They also indicated that it contains confusing and “excessive jargon” (IS5) that the “The Shape of the Australian Curriculum: English” (2009a) suggested should be avoided.

The idea that the Curriculum is an evolving document and that “Good teachers will look at it as an opportunity to refresh their classroom practices and deepen their professional knowledge” has merit (Derewianka, 2012, p. 144). However, considering the general perception that, up until the NCE, there had been an absence of grammar instruction in Australian schools for many years (Hudson & Walmsley, 2005; Jones & Chen, 2012), it might have been more effective for policy-makers and curriculum writers to introduce a comprehensive, single theorised approach to grammar, with a clear and consistent supporting metalanguage. Studies have suggested building upon traditional grammar rather than replacing the metalanguage for another completely (Collins, Hollo & Mar, 1997; Horan, 2002; Huddleston, 1989; Mulder & Thomas, 2009). However, this study, similar to the findings of Clandinin (1986), showed that all the participants suggested that their understanding of grammar was primarily obtained from personal experiences, be this learning at school (as with Anning, 1988; Britzman, 1991; Knowles, 1992), from their home environment, or once teaching in classrooms and acquiring knowledge in an ad-hoc manner necessitated by a requirement to meet the needs of student learning in their classrooms. Therefore, the lack of a consistent approach for so many years (Fontich & Camps, 2014; Hudson & Walmsley, 2005; Myhill & Watson, 2014) appears to have created concern amongst teachers about their knowledge of grammar. As such, a number of participants share beliefs that there is a need for a well-theorised, consistent and useful metalanguage (as currently attempted in the NCE) – one supported by clear pedagogical approaches. There is less agreement that this has been achieved in the current curriculum. At the same time, bringing together more than one method has, unsurprisingly, led to further confusion, rather than providing clarity of terminology, method and utility.

A majority of the experienced in-service teachers were clear that they did not want a return to grammar if it was taught in the “boring” way they had experienced in

school (IS2; IS3, IS4; IS6), nor did they wish to return to the “traditional” and “handbook rules” of schools that is also believed to be counter-productive to student learning (Dunn & Lindblom, 2003). As stated, pre-service teachers also shared their concerns. They indicated that teachers should not rely on worksheets and grammar books as a way of “ticking the box” of teaching grammar to students (PS2; PS3; PS5), without actually teaching it in a pedagogically meaningful way for students. Thus it seems, that pre-service and in-service teachers share the idea that grammar teaching needs to be purposeful and provide students with the “overall structure”, to understand the systems of language and “everything that holds [it] (literacy) together” (IS4). In this way both groups of teachers also appear to reject the traditional grammar approach that focuses on prescriptive rules and mastering those rules in an environment of “rote learning...devoid of context...” (Mulder & Thomas, 2009, p. 18).

While findings in this study showed that teachers generally support the idea that grammar should be taught explicitly (Hammon & Macken-Horarik, 2001), a number also indicated that it should not be done in isolation. Therefore, with regard to the current research, the question and challenge for educators was not that as described by Beers (2001, p. 4) one of “Do we teach grammar?”, but “How do we teacher grammar in context?” Pre-service and in-service teachers articulated a shared belief that the challenge of grammar teaching was to make it explicit, yet eclectic in approach and meaningful (Section 4.1.1). In fact, two participants suggested that grammar teaching should be fun and playful (PS5; IS3) for the pupils and should begin simply and then increase with complexity as students make their way through school (PS1; PS3; PS5; IS3; IS5). One pre-service teacher described in detail the importance of making grammar teaching a concrete experience for early learners (PS3), which corresponded with an in-service teacher who would often use small groups to teach specific grammar concepts at different levels for students in early primary including pre-primary (IS5). Pre-service and in-service teachers articulated a combination of explicit teaching of grammar. While IS2, expressly articulated that too much focus on isolated grammar, in light of time constraints faced by schools, would sometimes not allow students time to “write...just write” (IS2).

Further, while both pre-service and in-service teachers discussed direct grammar instruction and starting from an early age, neither group of teachers felt it should

interfere with children writing or communicating. In this way, this aligns with the analogy used by Dunn and Lindblom (2003) that when children are learning to walk, they crawl first, but that parents applaud and “don’t lecture their babies on bad crawling form or make them perform leg exercises before they start across the room” (p. 44). If the focus is communication, then the purpose of text is critical and “Prioritizing ‘the rules’ of grammar is not the path to success in the world” (Dunn & Lindblom, 2003, p. 45), nor in classrooms.

Not all the findings were critical and support for the NCE was given by the participants, with the in-service teachers noting that a consistent metalanguage had, and could further, support students in meaningful second language studies instead of a mere language “experience” (IS2; IS3; IS4; IS6). One pre-service teacher expressed admiration for language teaching in a Year 2 class that supported both English and German, using grammar to expand students’ knowledge of both languages (PS5).

In this way, the participants of the current study support the ideas put forward by Cajkler and Hislam (2002) that teaching grammar in such a way can develop thinking skills, support foreign-language learning and that it “helps children to expand their competence to include the many grammatical patterns which are needed in adult life but not found in children’s casual conversation” (Hudson & Walmsley, 2005, p. 594).

In addition, the two groups of teachers supported the notion that there is a need to “know grammar” to model usage, teach grammar directly and give detailed feedback to students at the point of need. Grammatical concepts could then be applied in students’ language use, not in isolation, but by integrating and contextualising its use in a functional way (see Section 4.3.3). However, teachers also acknowledge that external factors could often interfere with their pedagogical ideals. In particular, that the “standards focus” and NCE had created a “crowded curriculum” and that NAPLAN was forcing some teachers to teach to the test, or drop grammar down the hierarchy of literacy skills, or teach it in a disconnected, isolated way (Section 4.3.5).

In summary, the NCE was created to provide an Australian standard with an intention to include explicit grammar concepts. It is possible that this initiative has

resulted in pre-service and in-service teachers placing greater value on grammar teaching. Coupled with this, is the significance they give to contextual and functional models of pedagogical grammar. The participants also highlighted a number of challenges pertaining to the curriculum and to pedagogy. First, the NCE does not appear to have provided the consistent and shared metalanguage that enables teachers “to construct and deconstruct texts” (Jeurissen, 2010, p. 78). Secondly, that the NCE has not resulted in pre-service teachers, in particular, knowing how best to define and conceptualise grammar. Thirdly, emerging from the qualitative data, pre-service and in-service teachers admitted that with the perception of an increase in complexity of grammar terminology and concepts, they recognise their own limitations with respect to their grammatical content knowledge and, as a consequence, their confidence to teach grammar (Myhill et al., 2013).

## **5.2. Pre-service and In-service Teacher Grammar Knowledge**

The quantitative findings provided further support for this, revealing a number of limitations for both pre-service and in-service teachers regarding their own grammatical content knowledge of terminology and concepts within the NCE. For example, only 53.6% of pre-service and 51.1% of in-service teachers were able to identify the correct definition, as outlined in the glossary of the NCE, of the term “grammar” and the mean achievement scores in the grammar terminology test for both the in-service and pre-service teachers were less than 50%. This is a similar result to that of Harper and Rennie (2009), who found limited understanding amongst teachers about parts and structure of sentences and metalinguistic knowledge of terms that extended beyond “noun”, “verb” and “adjective” (p. 27). The findings in this research also indicate that both groups of teachers were only able to recognise comparatively basic definitions of a “simple sentence”, “compound sentence” and “noun”. All the teachers scored less than half correct for all other terminology questions contained in the multiple-choice test.

This study suggests that there is a difference between pre-service and in-service teachers in terms of grammar terminology knowledge, with the latter statistically outperforming the former ( $M = 9.55$ , 95% CI [2.66, 16.44],  $t_{114} = 2.746$ ,  $p = .007$ ). Even so, neither pre-service nor in-service teachers demonstrated competency with

the NCE terminology (Pre-service  $M = 32.68\%$   $SD = 14.74\%$  and in-service  $M = 42.23\%$   $SD = 22.74\%$ ). Considering it was grammar derived directly from the NCE Glossary and a multiple-choice test, this provides a clear challenge to policy-makers, schools and pre-service institutions to address either the type of grammar and terminology in the NCE, to consider providing a more accessible and useful grammatical approach, or to ensure a focus on ensuring teachers have a better knowledge about and understanding of the NCE in its current form.

Interestingly, the Likert responses suggested a trend (not a statistical significant difference) showing that pre-service teachers rated their own understanding of the NCE more highly than in-service teachers (Pre-service  $M = 3.28$   $SD = 0.69$ ; In-service  $M = 3.02$   $SD = 0.94$ ). It is a result similar to previous research showing that the less a teacher knows or understands grammar, the more they tend to over-estimate what they think they know (Moats, 2009). This is concerning because teachers may confidently pass on misconceptions to their students. The potential for this was further supported by the correlation analysis that revealed a strong relationship between teacher perceptions of having an excellent understanding of the NCE and having an excellent understanding of grammar concepts described within it ( $r = .615$ ,  $p = .0001$ ), and also that the more teachers believe they understand concepts the more confident they feel in teaching it ( $r = .612$ ,  $p = .000$ ). Therefore, exposing teachers to greater metalinguistic awareness at university or through PD might enable teachers to better assess their level of knowledge and teach accordingly.

The quantitative analysis also appears to support the qualitative findings that pre-service and in-service teachers share concerns over the increasing complexity of grammar concepts. Pre-service percentage correct scores ranged from 83.8% to 100% in response to Year 3 NAPLAN questions, increasing to a range of 43.8% to 100% for Year 7 concepts. For in-service teachers, the percentage correct scores for individual questions ranged from 87.2% to 100% for Year 3 questions, increasing to 53.3% to 100% for Year 7 questions. These findings might also suggest that, as interview participants suggested, teachers learn grammar concepts out of necessity and only to the level required by the year of students that they teach. Nevertheless, that only 8 teachers of 116 participants were able to achieve 100% in NAPLAN test items given to primary students is concerning, particularly as weak subject knowledge can generate student misunderstanding (Myhill et al., 2013). This also

supports findings that secondary teachers graduating from Bachelor of Education courses in Western Australia lack personal literacy, including grammar, raising concerns over appropriate admission standards into teaching university programs (Moon, 2014, p. 127-128).

Clearly, what teachers need to know about language and what they need to teach with respect to subject knowledge needs to be carefully considered, with Leech (1994) and Perera (1987) agreeing that “teachers’ grammatical knowledge needs to be richer and more substantive than the grammar they may need to teach to students” (Myhill et al., 2013 p. 79). There remains the sense that there is a tendency for pre-service and in-service teachers to associate grammar with rules and accuracy and that external pressures restrict them in terms of the pedagogical approach they can take. Despite this, when the participants discussed the value of grammar, their language would shift to meaning-making, the need for contextualisation and playful or rhetorical approaches. As in other recent research, teachers appear to value metalinguistic awareness to provide students with conscious choices (Watson, 2012), but worry that grammar teaching, due to their own knowledge or external factors, may also be “antipathetic to freedom and creativity” (Wilson & Myhill, 2012, p. 11).

Therefore, while findings in this study support other research that raise concerns over beginning teachers’ lack of preparedness to teach literacy in schools (Harper & Rennie, 2009; Loudon et al., 2005) and support the idea that linguists could contribute more to the study of English teaching, particularly in Western Australian primary classrooms. Notably, since this research was conducted, attempts have been made to improve confidence in the skills of graduating teachers through The Literacy and Numeracy Test for Initial Teacher Education Students (LANTITE). The purpose of this test is to assess teacher education students’ personal literacy and numeracy skills as a requirement prior to graduation. However, while this test may attempt to address personal literacy levels of graduating teachers, still, linguistic “expertise is urgently needed” (Hudson & Walmsley, 2005, p. 618) to provide a clearer rationale, terminology and method that teachers can use in classrooms. For even though there is now a “branch of research devoted specifically to educational linguistics” (Derewianka, 2012, p. 140), it does not appear to be filtering into primary schools and providing a clear and consistent framework for teachers and, as a consequence, their students. Even if this recommendation cannot be enacted, it is clear that pre-

service institutions in Western Australia must act to provide their students with a much richer metalinguistic understanding so that they can be empowered and feel confident in moving beyond their implicit knowledge and realise the aim of the NCE to foster a “coherent, dynamic, and evolving body of knowledge about the English language and how it works” (ACARA, 2009a, p. 6).

Overall, if “the Language Strand of The Australian Curriculum: English is informed by an approach that sees language as a system of resources for making meaning” (Derewianka, 2012, p. 139) and teachers struggle to “simultaneously understand the linguistic terminology themselves and teach it effectively” (Myhill, 2005, p. 90), then there is much more work needed on raising linguistic awareness, both for novice and more experienced teachers. In particular, the findings of the current study show that beginner teachers are feeling the impact of the increasing complexity of grammar terminology and concepts. This reflects the concerns that have been raised in a number of studies in the UK (Andrews, 1994, 1999; Bloor, 1986; Burgess, Turvey & Quarshie, 2000; Chandler, Robinson & Noyes, 1988; Hislam & Cajkler, 2005; Williamson & Hardman, 1995; Wray, 1993) and in the USA (Kolln & Hancock, 2005). However, it should be acknowledged that pre-service teachers in this study were only drawn from one university in Western Australia. Therefore, more research into what is offered in other pre-service teacher training institutions and pre-service experiences also needs to be investigated to provide greater generalisability.

### **5.3. Implications for Pre-service Education in Western Australia**

The gap between the knowledge requirements of students in primary classrooms and what the tertiary environment is providing needs to be bridged. Thus, there are clear implications for pre-service education at the university level with respect to the teaching of grammar pedagogy and grammar knowledge. How this is best achieved is still open to debate, but what is clear is the need for beginner primary school teachers to have the required subject knowledge so that they may support their students to develop a common understanding of how language works (Myhill & Watson, 2014). Irrespective of the utility or otherwise of the NCE, a concern emerging from the findings of the current study is that beginner teachers appear to

lack understanding of grammar terminology and concepts as defined by the NCE. As such, pre-service institutions may need to enhance the language component of their teacher training programs (Kolln, 1996).

Participants in this study provided suggestions including the use of dedicated mentors throughout their studies, responsible for ensuring the development of literacy and pedagogic skills so they can adequately teach grammar. Some suggested teachers still in classrooms would be useful for this role. Others indicated that literacy units needed to be structured differently to better develop individual knowledge and that this should be then tested in fair and accurate ways (see Sections 4.4.1 and 4.4.2). In addition, there appears to be a desire from teachers, coupled with an apparent need (as demonstrated by the test results) for more grammar to be incorporated into literacy units.

The literature also provides suggestions for how grammar teaching can be better developed. For example, Dunn and Lindblom (2003) suggest immersing students in the controversies that surround grammar, holding public grammar debates to juxtapose usage conflicts so that students can “make difficult but informed choices regarding each rhetorical situation: level and type of formality needed, possibilities for changes in active or passive voice, point of view, vocabulary, sentence structure, formatting, copy editing conventions, etc.” (p. 47-49). As suggested by participant PS5, pre-service institutions could use an inductive approach, exploring the breadth of theories and pedagogical approaches for teaching grammar. They could also encourage teachers to actively explore language use in context, so that they can then model this to their students.

Discursive dialogue from the interviews provides universities with the opportunity for introspection and to review their own pedagogical practices. For example, some participants suggested that university level entry requirements for teaching qualifications are too low and literacy levels of beginner teachers are of concern. Pre-service teachers also suggested that benchmark English tests were conducted in a manner that was ineffective and inadequate in testing knowledge of grammar terminology and concepts, while simultaneously unhelpful in preparing beginner teachers for literacy teaching. Additionally, that there was little focus in the literacy units on preparing beginner teachers for grammar teaching in classrooms. More

broadly, one in-service teacher suggested that a heavy reliance on group work assessments provided opportunities for individuals to avoid their knowledge and understanding being tested effectively, until (ultimately) they might be alone in a classroom. All of these issues highlight the challenge for universities in bridging the gap between theoretical studies and the reality of classroom practice in schools with competing priorities.

There may also be a role for staff at pre-service institutions to further debate grammar terminology used in the NCE, with some suggesting it has “serious deficits” (Mulder, 2011, p. 835). This is particularly urgent given the argument that the glossary contains inaccuracies and inconsistencies, likely to cause confusion, and in need of informed insight by research-based linguistics to support teachers in “furthering their skills in language and grammar teaching pedagogy” relevant to the needs of students (Mulder, 2011, p. 844); a position certainly reflected in the current findings. There is also need for a dialogue about how to prepare beginner teachers for the rigors of programming within an imperfect system and how to be “creative and resourceful ‘adapters’ of published materials” (Myhill et al., 2011, p. 10). This may include the use of a model suggested by Fontich and Camps (2014, p. 599) about using metalinguistic activity for reflection about language and “an approach to classroom activities based on interaction, and focused both on the use of language and on the students’ metalinguistic capacities.” Regardless of how this is done, pre-service institutions must continue to work hard to bridge the gap between theoretical and academic discourse at the university level, to better prepare novice teachers for the practical realities of the classroom. As Bigelow and Ranney suggest:

Reflections lend doubt to the assumption that it is enough to provide separate instruction on grammar and instruction on pedagogy with the expectation that pre-service teachers will then be able to put the two together. Even with a grammar course that was especially designed to make these connections, the issue of how to apply the knowledge to teaching was the major concern that participants expressed. (2005, p. 194)

#### **5.4. Conclusion**

There is little doubt that the NCE and the decision to provide a “traditional grammar with an overlay of function grammar terminology” (Mulder, 2011, p. 840) has provided pre-service and in-service teachers with a sometimes confusing and

complex metalanguage on which to plan and teach. Nevertheless, grammar and grammar teaching in Australia continues to develop, although, as this research indicates, there is still more to be done to ensure that teachers have a useful framework, requisite subject and pedagogical knowledge, and school environments that ensure it is meaningfully taught in schools. External pressures, some believe, are preventing teachers from teaching grammar how they believe it should be taught, and this problem is further exacerbated by policy-makers, curriculum writers and academics who, with best intentions, have fallen short in providing a grammar that is well-theorised, consistent, purposeful and meaningful for Western Australian teachers and students. In the meantime, pre-service institutions can assist by making grammar and metalinguistic knowledge a priority for beginner teachers inspiring further, well-informed debate so that teachers may realise their goal of providing students with a repertoire of knowledge about language that empowers and provides individuals with the capacity to express.

## References

- Alderson, J.C., Clapham, C., & Steel, D. (1997). Metalinguistic Knowledge, Language Aptitude and Language Proficiency. *Language Teaching Research*, 1(2), 93-121.
- Alderson, J.C., & Horak, T. (2011). *Metalinguistic knowledge of undergraduate students of English language and linguistics*. Lancaster: Subject Centre for Languages, Linguistics and Area Studies in Higher Education.
- Allen, R. (Ed.). (2008). *Pocket Fowlers Modern English Usage*. New York: Oxford University Press.
- Allen, J.P.B., & Widdowson, H.G. (1975). Grammar and Language Teaching. In J.P.B. Allen & S.P. Corder (Eds.), *The Edinburgh Course in Applied Linguistics. Papers in Applied Linguistics Volume 2* (pp. 45-98). London: Oxford University Press.
- Andrews, R. (2005). Knowledge about the teaching of sentence grammar: The state of Play. *English Teaching: Practice and Critique*, 4, 69-76.
- Andrews, S. (1994). The grammatical knowledge and awareness of Hong Kong teachers of English. In N. Bird, P. Falvey, ABM Tsui, D. Allison, & A. McNeill (Eds.), *Language and learning* (pp. 508-520). Hong Kong: Institute of Language in Education.
- Andrews, S. (1999). Why do L2 teachers need to 'know about language'? Teacher metalinguistic awareness and input for learning. *Language and Education*, 13(3), 161-177.
- Andrews, S., & McNeill, A. (2005). Knowledge about Language and the 'Good Language Teacher'. In N. Bartels (Ed.), *Researching Applied Linguistics in Language Teacher Education* (pp. 159-178). Boston: Springer Science + Business Media, Inc.
- Anning, A. (1988). Teachers' theories about children's learning. In J. Calderhead (Ed.), *Teachers' professional learning* (pp. 128-145). London: Falmer.

- Arksey, H., & P. T. Knight (1999). *Interviewing for social scientists: An introductory resource with examples*. London: Sage Publications.
- Armstrong, K. (2004). Sexing up the dossier: A semantic analysis of phrasal verbs for language teachers. *Language Awareness*, 14, 213-224.
- Australian Association for the Teaching of English (AATE). (2009). *Response to the National English Curriculum: Framing Paper from AATE Council*. Retrieved from <https://www.aate.org.au/documents/item/75>
- Australian Curriculum Assessment and Reporting Authority (ACARA), (formerly National Curriculum Board). (2008). *National English Curriculum: Framing paper*. Retrieved from [http://www.acara.edu.au/\\_resources/FramingEnglishFINAL\\_300109.pdf](http://www.acara.edu.au/_resources/FramingEnglishFINAL_300109.pdf)
- Australian Curriculum Assessment and Reporting Authority (ACARA), (formerly National Curriculum Board). (2009a). *The Shape of the Australian Curriculum: English*. Retrieved from [http://www.acara.edu.au/\\_resources/Australian\\_Curriculum\\_-\\_English.pdf](http://www.acara.edu.au/_resources/Australian_Curriculum_-_English.pdf)
- Australian Curriculum Assessment and Reporting Authority (ACARA), (formerly National Curriculum Board). (2009b). *Framing Paper Consultation Report: English*. Retrieved from [http://www.acara.edu.au/\\_resources/consultation\\_report\\_-\\_english.pdf](http://www.acara.edu.au/_resources/consultation_report_-_english.pdf)
- Australian Curriculum Assessment and Reporting Authority (ACARA), (formerly National Curriculum Board). (2009c). *The Shape of the Australian Curriculum*. Retrieved from [http://www.acara.edu.au/\\_resources/The\\_Shape\\_of\\_the\\_Australian\\_Curriculum\\_May\\_2009\\_file.pdf](http://www.acara.edu.au/_resources/The_Shape_of_the_Australian_Curriculum_May_2009_file.pdf)
- Australian Curriculum Assessment and Reporting Authority (ACARA). (2010). *Australian Curriculum: English*. Retrieved from <http://www.australiancurriculum.edu.au>.

- Australian Curriculum Assessment and Reporting Authority (ACARA). (2011). *The Australian Curriculum Version 1.2*. Retrieved from <http://www.australiancurriculum.edu.au/Static/docs/history/2.0/Australian%20Curriculum%20v1.2.pdf>
- Australian Curriculum Assessment and Reporting Authority (ACARA). (2013). *My School Fact Sheet*. Retrieved from [www.myschool.edu.au](http://www.myschool.edu.au)
- Baron, D. (2003, May 16). Teaching grammar doesn't lead to better writing. *The Chronicle of Higher Education*, 49(36), 1-8.
- Balzarolo, K. (2010). Getting Started with Functional Grammar in an Upper Primary Classroom. *Literacy Learning: the Middle Years*, 18(3), 20.
- Bartels, N. (2002). Professional preparation and action research: Only for language teachers? *TESOL Quarterly*, 36(1), 71-79.
- Bartels, N. (2005). *Applied Linguistics and Language Teacher Education*. Boston, USA: Springer Science + Business Media, Inc.
- Beers, K. (2001). Contextualising Grammar. *Voices from the Middle*, 8(3), 4.
- Berger, J. (2001). A Systematic Approach to Grammar Instruction. *Voices from the Middle*, 8(3), 43-49.
- Bigelow, M.H., & Ranney, S.E. (2005). Pre-Service ESL Teachers' Knowledge about Language and its Transfer to Lesson Planning. In N. Bartels (Ed.), *Researching Applied Linguistics in Language Teacher Education* (pp. 179-200). Boston: Springer Science + Business Media, Inc.
- Bloor, T. (1986). What do language students know about grammar? *British Journal of Language Teaching*, 24(3), 157-160.
- Board of Education. (1921). *The teaching of English in England* (The Newbold Report). London: His Majesty's Stationery Office. [Later edition 1938].

- Borg, S. (1998). Teachers' pedagogical systems and grammar teaching: A qualitative study. *TESOL Quarterly*, 32(1), 9-38.
- Borg, S. (1999a). Studying teacher cognition in second language grammar teaching. *System*, 27(1), 19-31.
- Borg, S. (1999b). The use of grammatical terminology in the second language classroom: A qualitative study of teachers' practices and cognitions. *Applied Linguistics*, 20(1), 95-126.
- Borg, S., & Burns, A. (2008). Integrating Grammar in Adult TESOL Classrooms. *Applied Linguistics*, 29, 456-482.
- Bos, C., Mather, N., Dickson, S., Podhajski, B., & Chard, D. (2001). Perceptions and knowledge of preservice and inservice educators about early reading instruction. *Annals of Dyslexia*, 51, 97-120.
- Bowling, A. (1997). *Research Methods in Health*. Buckingham: Open University Press.
- Braddock, R., Lloyd-Jones, R., & Schoer, L. (1963). *Research in written composition*. Urbana, IL: National Council of Teachers of English.
- Britzman, D. (1991). *Practice makes practice: A critical study of learning to teach*. Albany: State University of New York Press.
- Brophy, J. (1991). *Advances in Research on Teaching, Vol. 2*. Greenwich, CT: JAI Press.
- Brumfit, C. (1997). The teacher as educational linguist. In L. van Lier & D. Corson (Eds.), *Encyclopedia of language and education: Volume 7: Knowledge about language* (pp. 163-172). Dordrecht: Kluwer Academic Publishers.
- Bryman, A. (2008). *Social research methods* (3<sup>rd</sup> ed.). Oxford: Oxford University Press.
- Burgess, T., Turvey, A., & Quarshie, R. (2000). Teaching grammar: Working with student teachers. *Changing English*, 7, 7-21.

- Burner, T. (2005). *A Study of the Teaching and Learning of English Grammar with Special Reference to the Foundation Course in the Norwegian Senior High School*. (Master's Thesis). Retrieved from [https://www.duo.uio.no/bitstream/handle/10852/25413/1/TONY\\_THESIS.pdf](https://www.duo.uio.no/bitstream/handle/10852/25413/1/TONY_THESIS.pdf)
- Burns, N., & Grove, S. K. (1997). *The Practice of Nursing Research Conduct, Critique, & Utilization*. Philadelphia: W.B. Saunders and Co.
- Cajkler, W., & Hislam, J. (2002). Trainee teachers' grammatical knowledge: The tension between public expectations and individual competence. *Language Awareness*, 11, 161–177.
- Cameron, D. (1994). Dr Syntax and Mrs Grundy: Grammar, myths and morals. *Changing English: studies in reading and culture*, 2, 34-43.
- Cameron, D. (1995). *Verbal Hygiene (The Politics of Language)*. London: Routledge.
- Carter, R. (Ed.). (1990). *Knowledge about Language*. London: Hodder and Stoughton.
- Carter, R. (1994). English teaching in England and Wales: Key reports. In R.E. Asher (Ed.), *Encyclopedia of Language and Linguistics* (pp. 1137-1138). Oxford: Pergamon Press.
- Chandler, P., Robinson, W., & Noyes, P. (1988). The level of linguistic knowledge and awareness amongst student teachers training to be primary teachers. *Language and Education*, 2, 161-174.
- Charmaz, K. (2006). *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. London, Thousand Oaks, New Delhi: SAGE Publications.
- Chen, H., & Derewianka, B. (2009). Binaries and beyond: a Bernsteinian perspective on change in literacy education. *Research Papers in Education*, 24(2), 223-245.

- Christie, F., Devlin, B., Freebody, P., Luke, A., Martin, J., Threadgold, T., & Walton, C. (1991). *Teaching English literacy: A project of national significance on the preservice preparation of teachers for teaching English literacy*. Darwin, NT: Centre for Studies of Language in Education.
- Christie, F. & Derewianka, B. (2008). *School discourse: Learning to write across the years of schooling*. London and New York: Continuum.
- Christie, F., & Unsworth, L. (2006). Developing dimensions of an educational linguistics. In J. Webster, C. Matthiessen, & R. Hasan (Eds.), *Continuing discourse on language: A functional perspective* (pp. 217-250). London: Equinox.
- Clandinin, D.J. (1986). *Classroom practice: Teacher images in action*. Philadelphia: Falmer.
- Clark, U. (2010). Grammar in the curriculum for English: What next? *Changing English*, 17(2), 189-200.
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7<sup>th</sup> ed.). New York: Routledge.
- Collins, P., Hollo, C., & Mar, J. (1997). English grammar in school textbooks: A critical survey. *Australian Review of Applied Linguistics*, 20(2), 33-50.
- Common Core State Standards Initiative (CCSSI). (2016). *Common Core State Standards for Language Arts*. Retrieved from <http://www.corestandards.org/ELA-Literacy>
- Cots, J.M., & Arnó, E. (2005). Integrating Language Teachers' Discipline Knowledge in a Language Course. In N. Bartels (Ed.), *Researching Applied Linguistics in Language Teacher Education* (pp. 59-78). Boston: Springer Science + Business Media, Inc.
- Creswell, J. W. (2007). *Qualitative inquiry and research design. Choosing among five approaches* (2<sup>nd</sup> ed.). London & New Delhi: Sage Publications.

- Creswell, J.W., & Plano Clark, V.L. (2007). *Designing and Conducting Mixed methods Research*. California: Sage.
- Culioli, A. (1990). *Pour une linguistique de l'énonciation: Tome 1 [Towards a linguistic enunciation: Volume 1]*. Paris: Ophrys.
- Darling-Hammond, L. (2006). *Powerful teacher education*. San Francisco: John Wiley.
- Davis, K. (1995). Qualitative theory and methods in applied linguistics research. *TESOL Quarterly*, 29(3), 427-452.
- Dawkins, J. (1995). Teaching punctuation as a rhetorical tool. *College Composition and Communication*, 46, 533-548.
- Denzin, N., & Lincoln, Y. (1994). *Handbook of Qualitative Research*. Thousand Oaks (Calif): Sage.
- Denzin, N., & Lincoln, Y. (Eds.). (1998) *The Landscape of Qualitative Research: Theories and Issues*. Thousand Oaks (Calif): Sage.
- Department for Education. (2011). *Review of the National Curriculum in England: Report on subject breadth in international jurisdictions Research Report DFE-RR178a*. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/197636/DFE-RR178a.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/197636/DFE-RR178a.pdf)
- Department of Education, Science and Training. (2005). *Benchmarking Australian Primary School Curricula*. Retrieved from [http://pandora.nla.gov.au/pan/53666/20051107-0000/www.dest.gov.au/sectors/school\\_education/publications\\_resources/profiles/benchmarking\\_curricula\\_report2.pdf](http://pandora.nla.gov.au/pan/53666/20051107-0000/www.dest.gov.au/sectors/school_education/publications_resources/profiles/benchmarking_curricula_report2.pdf)

- Department of Education, Science and Training prepared by Matters, G., & Masters, G. for Australian Council for Education Research. (2007). *Year 12 curriculum content and achievement standards*. Retrieved from [http://pandora.nla.gov.au/pan/67832/20070212-0000/www.dest.gov.au/NR/rdonlyres/BEBED234-E6F9-43C0-AF0F-0975DCFEE39B/15412/curriculum\\_content\\_achivement\\_standards1.pdf](http://pandora.nla.gov.au/pan/67832/20070212-0000/www.dest.gov.au/NR/rdonlyres/BEBED234-E6F9-43C0-AF0F-0975DCFEE39B/15412/curriculum_content_achivement_standards1.pdf)
- Derewianka, B.M. (2012). Knowledge about language in the Australian curriculum: English. *Australian Journal of Language and Literacy*, 35(1), 127-146. Retrieved from <http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1128&context=sspapers>
- Donnelly, K. (2008, October 17) Opinion: English goes back to basics. *The Australian*. Retrieved from <http://www.theaustralian.com.au/opinion/columnists/english-goes-back-to-basics/story-e6frg7ef-1111117774605>
- Dunn P.A., & Lindblom, K. (2003). Why Revitalize Grammar? *The English Journal*, 92(3), 43-50.
- Eisenhart, M. (2006). Representing qualitative data. *Handbook of complementary methods in education research*, 34, 567-581.
- Elbow, P. (1981). *Writing with power: Techniques for mastering the writing process*. New York: Oxford.
- Elliott, T. (2014, March 22). Opinion: Time to get back to basics in teaching grammar and maths at schools. *Herald Sun*. Retrieved from <http://www.heraldsun.com.au/news/opinion/time-to-get-back-to-basics-in-teaching-grammar-and-maths-at-schools/story-fni0ffsx-1226861591633>
- English Association. (1923). *The problem of grammar*. [English Association Pamphlet 56]. English Association.
- Exley, B.E., & Mills, K.A. (2012). Parsing the Australian curriculum English: grammar, multimodality and cross-cultural texts. *Australian Journal of Language and Literacy*, 35(2), 1-24.

- Fearn, L., & Farnan, L. (2007). When Is a Verb? Using Functional Grammar to Teach Writing. *Journal of Basic Writing*, 26(1), 63-87.
- Flick, U. (2007). *Managing Quality in Qualitative Research* (Book 8 of *The SAGE Qualitative Research Kit*). London: Sage.
- Folkeryd, J.W. (2006). *Writing with an Attitude: Appraisal and student texts in the school subject of Swedish*. Studia Linguistica Upsaliensia 5. Uppsala: Acta Universitatis Upsaliensis.
- Fontich, X., & Camps, A. (2014). Towards a rationale for research into grammar teaching in schools. *Research Papers in Education*, 29(5), 598-625.  
<http://dx.doi.org/10.1080/02671522.2013.813579>
- Gess-Newsom, J., & Lederman, N.G. (Eds.). (1999). *Examining Pedagogical Content Knowledge*. Dordrecht: Kluwer.
- Glaser, B.G., & Strauss, A.L. (1967). *The discovery of grounded theory*. Chicago: Aldine.
- Gombert, E.J. (1992). *Metalinguistic development*. Hemel Hempstead: Harvester Wheatsheaf.
- Gordon, E. (2005). Grammar in New Zealand schools: Two case studies. *English Teacher: Practice and Critique*, 4, 48-68.
- Graves, D. (1983). *Writing: Teachers and Children at work*. London: Heinemann.
- Greenhouse, S.W., & Geisser, S. (1959). On methods in the analysis of profile data. *Psychometrika*, 24, 95-112.
- Grisham, D.L. (2000). Connecting theoretical conceptions of reading to practice: A longitudinal study of elementary school teachers. *Reading Psychology*, 21, 145-170.
- Haldyna, T. M. (1996). *Writing Test Items to Evaluate Higher Order Thinking*. New York: Routledge.

- Haladyna, T.M., Downing, S.M., & Rodriguez, M.C. (2002). A Review of Multiple-Choice Item-Writing Guidelines for Classroom Assessment. *Applied Measurement in Education*, 15(3), 309-334. Retrieved from [http://cmapspublic3.ihmc.us/rid=1P2XTLCSS-11K09T9-BD5/Haladyna\\_2002\\_-Appl\\_Meas\\_Educ.pdf](http://cmapspublic3.ihmc.us/rid=1P2XTLCSS-11K09T9-BD5/Haladyna_2002_-Appl_Meas_Educ.pdf)
- Haldyna, T. M., & Rodriguez, M.C. (2013). *Developing and Validating Test Items*. New York: Routledge.
- Halliday, M.A.K. (1978). *Language as social semiotic: The social interpretation of language and meaning*. London: Edward Arnold.
- Halliday, M.A.K. (1993). Towards a Language-Based Theory of Learning. *Linguistics and Education*, (5), 93-116.
- Halliday, M.A.K. (1994). *An introduction to functional grammar*. London: Hodder.
- Halliday, M.A.K. (2003). Introduction: On the ‘architecture’ of human language. In J. Webster (Ed.), *On language and linguistics: Volume 3 in the collected works of M.A.K Halliday* (pp. 1-29). London and New York: Continuum.
- Hammon, J., & Macken-Horarik, M. (2001). Teachers’ voices, teachers’ practices. *Australian Journal of Language and Literacy*, 24(2), 112-132.
- Hancock, C. (2009). How Linguistics can Inform the Teaching of Writing. In R. Beard, D. Myhill, J. Riley, & M Nystrand (Eds.), *The Sage Handbook of writing development* (pp. 194-208). London: Sage.
- Harper, H., & Rennie, J. (2009). I had to go out and get myself a book on grammar: A study of pre-service teachers’ knowledge about language. *Australian Journal of Language and Literacy* 32(1), 22-37.
- Hasan, R. (2002). Ways of meaning, ways of learning: Code as an explanatory concept. *British Journal of Sociology of Education*, 23, 537-548.
- Her Majesty’s Stationery Office. (1975). *Language for life* (The Bullock Report). Retrieved from <http://www.educationengland.org.uk/documents/bullock/bullock1975.html>

- Her Majesty's Stationery Office. (1984). *English from 5 to 16: curriculum matters 1*. Retrieved from <http://www.educationengland.org.uk/documents/hmi-curricmatters/english.html>
- Her Majesty's Stationery Office. (1988). *Report of the Committee of Inquiry into the Teaching of English Language* (The Kingman Report). Retrieved from <http://www.educationengland.org.uk/documents/kingman/kingman1988.html>
- Her Majesty's Stationery Office. (1989). *English for ages 5 to 16* (The Cox Report). Retrieved from <http://www.educationengland.org.uk/documents/cox1989/cox89.html>
- Hewson, C., Yule, P., Laurent, D., & Vogel, C. (2003). *Internet Research Methods: A Practical Guide for the Social and Behavioural Sciences*. London: Sage.
- Hillocks, G. (1984). What works in teaching composition: A meta-analysis of experimental treatment studies. *American Journal of Education*, 93(1), 133-170.
- Hillocks, G., Jr. (1986). *Research on Written Composition: New directions for teaching*. Urbana, IL: NCTE.
- Hislam, J., & Cajkler, W. (2005). Teacher trainees' explicit knowledge of grammar and primary curriculum requirements in England. In N. Bartels (Ed.), *Researching Applied Linguistics in Language Teacher Education* (pp. 295-312). Boston: Springer Science + Business Media, Inc.
- Horan, A. (2002). English grammar in schools. In P. Collins & M. Amberber (Eds.), *Proceedings of the 2002 Conference of the Australian Linguistic Society* (pp. 1-9). Retrieved from <http://www.als.asn.au>
- Huddleston, R. (1989). *English grammar in school textbooks: towards a consistent linguistic alternative* (Occasional Papers Number 11). Mt Gravatt, Old: Applied Linguistics Association of Australia.

- Hudson, D. (2001). Grammar Teaching and Writing Skills: The Research Evidence. *Syntax in the Schools*, 17, 1-6.
- Hudson, R. (2004). Why education needs linguistics. *Journal of Linguistics*, 40, 105-130.
- Hudson, D., & Walmsley, J. (2005). The English patient: English grammar and teaching in the twentieth century. *Journal of Linguistics*, 41, 593–622.
- James, C. (2002). La conciencia sobre el lenguaje: orígenes, problemas y orientaciones [Language Awareness: Origins, Problems, and Orientations]. In J.M. Cots & L. Nussbaum (Eds.), *Pensar lo dicho. La reflexión sobre la lengua y la comunicación en el aprendizaje de lenguas [Thinking about what we say. Reflection on Language and Communication in Language Learning]* (pp. 19–32). Lleida: Milenio.
- Jensen, M., & Harrington, J. (2008). Developing the language awareness of second language teachers. In P. Jeffrey (Ed.), *AARE 2007 International Education Research conference-Fremantle*. Retrieved from <http://www.aare.edu.au/data/publications/2007/jen07290.pdf>
- Jeurissen, M. (2010). Grammar in the New Zealand English Curriculum: Implications for primary school teachers and teacher educators. *Curriculum Matters*, 6, 66-81. Retrieved from <http://www.nzcer.org.nz/research/implementing-new-zealand-curriculum>
- Joshi, R.M., Binks, E., Hougen, M., Dahlgren, M.E., Ocker-Dean, E., & Smith, D.L. (2009). Why Elementary Teachers Might Be Inadequately Prepared to Teach Reading. *Journal of Learning Disabilities*, 42(5), 392 – 402. <http://dx.doi.org/10.1177/0022219409338736>
- Jones, P.T., & Chen, H. (2012). Teachers' knowledge about language: issues of pedagogy and expertise. *Australian Journal of Language and Literacy*, 35(2), 147-168.

- Jones, S.S., Myhill, D.A., & Bailey, T.C. (2013). Grammar for writing? An investigation into the effect of contextualised grammar teaching on student writing. *Reading and Writing Quarterly: Overcoming Learning Difficulties*, 26(8), 1241-1263.  
<http://dx.doi.org/10.1007/s11145-012-9416-1>
- Kamler, B. (1995). The grammar wars or what do teachers need to know about grammar? *English in Australia*, 114, 3-15.
- Karmiloff-Smith, A., Grant, J., Sims, K., Jones, M.C., & Cuckle, P. (1996). Rethinking metalinguistic awareness: Representing and accessing knowledge about what counts as a word. *Cognition*, 58, 197-219.
- Knowles, J.G. (1992). Professional growth among pre-service and beginning teachers. *Review of Educational Research*, 62(2), 129-169.
- Kolln, M. (1996). Rhetorical Grammar: A Modification Lesson. *English Journal*, 85(7), 25-31.
- Kolln, M. (2006). *Rhetorical grammar: Grammatical choices, rhetorical effects*. New York: Longman.
- Kolln, M., & Hancock, C. (2005). The Story of English Grammar in US Schools. *English Teaching: Practice and Critique*, 4, 11-31.
- Leech, G.N. (1994). Students' grammar – teachers' grammar – learners' grammar. In M. Bygate, A. Tonkyn, & E. Williams (Eds.), *Grammar and the language teacher* (pp. 17-30). New York: Prentice Hall.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications.
- Locke, T. (2005). Grammar wars: Beyond a truce. *English Teaching: Practice and Critique*, 4, 1-10.
- Locke, T. (2009). Grammar and Writing. The International Debate. In R. Beard, D. Myhill, J. Riley, & M. Nystrand (Eds.), *The SAGE Handbook of Writing Development* (pp. 182-193). London: SAGE.

- Locke, T. (2010). Discovering a Metalanguage for All Seasons: Bringing Literary Language in from the Cold. In T. Locke (Ed.), *Beyond the Grammar Wars: A Resource for Teachers and Students on Developing Language Knowledge in the English/Literacy Classroom* (pp. 170 – 184). New York: Routledge.
- Long, M. H. (2005). Methodological issues in learner needs analysis. In M. H. Long (Ed.), *Second language needs analysis* (pp. 19-76). Cambridge: Cambridge University Press.
- Louden, W., Edith Cowan University, Department of Education, Science and Training, National Literacy and Numeracy Strategies and Projects Programme. (2005). *Prepared to teach: an investigation into the preparation of teachers to teach literacy and numeracy*. WA: Edith Cowan University.
- Louden, W., & Rohl, M. (2006). “Too many theories and not enough instruction”: perceptions of preservice teacher preparation for literacy teaching in Australian schools. *Literacy*, 40(2), 66-78.  
<http://dx.doi.org/10.1111/j.1467-9345.2006.00440.x>
- Love, K. (2009). Literacy pedagogical content knowledge in secondary teacher education: reflecting on oral language and learning across the disciplines. *Language and Education*, 23(6), 541-600.  
<http://dx.doi.org/10.1080/09500780902822942>
- Macken-Horarik, M., Love, K., & Unsworth, L. (2011). A grammatics ‘good enough’ for school English in the 21<sup>st</sup> century: Four challenges in realising the potential. *Australian Journal of Language and Literacy*, 34, 9-23.
- Martin, J.R. (2009). Genre and language learning: A social semiotic perspective. *Linguistics and Education*, 20, 10-21.  
<http://dx.doi.org/10.1016/j.linged.2009.01.003>
- Mason, J. (1996). *Qualitative researching*. London: Sage.
- Masters, G. (2006). Australian Certificate of Education: Exploring a Way Forward. *Research Developments*, 16, Art. 2. Retrieved from  
<http://research.acer.edu.au/cgi/viewcontent.cgi?article=1035&context=resdev>

- Masters, G.N., & Forster, M. (1997). *Literacy standards in Australia*. Canberra: Australian Council for Educational Research. Retrieved from [http://research.acer.edu.au/monitoring\\_learning/6](http://research.acer.edu.au/monitoring_learning/6)
- May, S., & Smyth, J. (2007). Addressing Literacy in Secondary Schools: Introduction. *Language and Education*, 21(5), 365-369.  
<http://dx.doi.org/10.2167/le796.0>
- McCardle, P., & Chhabra, V. (Eds.). (2004). *The voice of evidence in reading research*. Baltimore: Paul H. Brookes.
- Merriam, S. B. (1988). *Case study research in education: a qualitative approach*. San Francisco: Jossey-Bass Publishers.
- Micciche, L. (2004). Making a case for rhetorical grammar. *College Composition and Communication*, 55, 716–37.
- Ministerial Council on Education, Employment, Training and Youth Affairs. (2008). *Melbourne Declaration on Educational Goals for Young Australians*. Melbourne: Author.
- Moats, L. (1994). The missing foundation in teacher education: Knowledge of the structure of spoken and written language. *Annals of Dyslexia*, 44, 81-102.
- Moats, L. (2009). Still Wanted: teachers with knowledge of language. *Journal of Learning Disabilities*, 42(5), 387-91.  
<http://dx.doi.org/10.1177/0022219409338735>
- Moon, B. (2014). The Literacy Skills of Secondary Teaching Undergraduates: Results of Diagnostic Testing and a Discussion of Findings. *Australian Journal of Teacher Education*, 39 (12), 111-30.  
<http://dx.doi.org/10.14221/ajte.2014v39n12.8>
- Mulder, J. (2011). Grammar in English Curricula: Why Should Linguists Care? *Language and Linguistics Compass*, 5(12), 835-847.  
<http://dx.doi.org/10.1111/j.1749-818X.2011.00316.x>

- Mulder, J., & Thomas, C. (2009). Accessing Grammar in Secondary English: A Victorian Exemplar. *English in Australia*, 44(2), 17-24.
- Myhill, D.A. (2004). Making connections: Grammar and meaning. *Secondary English Magazine*, 8, 23–26.
- Myhill, D.A. (2005). Ways of knowing: Writing with grammar in mind. *English Teaching: Practice and Critique*, 4(3), 77-96.
- Myhill, D.A. (2006). Designs on writing 2: Sentences. *Secondary English Magazine*, 10, 25–28.
- Myhill, D.A., Jones, S.M., Lines, H., & Watson, A. (2012). Re-thinking grammar: The impact of embedded grammar teaching on students' writing and students' metalinguistic understanding. *Research Papers in Education*, 27, 1–28.
- Myhill, D., Jones, S., & Watson, A. (2013). Grammar matters: How teachers' grammatical knowledge impacts on the teaching of writing. *Teaching and Teacher Education*, 36, 77-91.  
<http://dx.doi.org/10.1016/j.tate.2013.07.005>
- Myhill, D.A., Lines, H.E., & Watson, A. (2011). Making meaning with grammar: A repertoire of possibilities. *mETaphor*, 2, 1-10.
- Myhill, D., & Watson, A. (2014). The role of grammar in the writing curriculum: A review of the literature, *Child Language Teaching and Therapy*, 30, 41-62.  
<http://dx.doi.org/10.1177/0265659013514070>
- O'Brien, K. (Host). (2010). *The 7:30 Report* [Television Series]. Retrieved from <http://www.abc.net.au/7.30/content/2010/s2833597.htm>
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Report of the subgroups*. Bethesda, MD: Author.
- Nespor, J. (1987). The Role of Beliefs in the Practice of Teaching. *Journal of Curriculum Studies*, 19, 317-328.

- Newman, I., & Benz, C.R. (1998). *Qualitative-Quantitative Research Methodology: Exploring the Interactive Continuum*. Carbondale: Southern University of Illinois Press.
- Patton, M.Q. (1990). *Qualitative Research & Evaluation Methods*. Beverly Hills, CA: Sage.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3<sup>rd</sup> ed.). Thousand Oaks: Sage Publications.
- Paulhus, D. L. (1984). Two-component models of socially desirable responding. *Journal of personality and social psychology*, 46(3), 598.
- Perera, K. (1987). *Understanding language*. Sheffield: NAAE.
- Petit, A. (2003). The stylish semicolon: Teaching punctuation as rhetorical choice. *English Journal*, 92, 77-72.
- Petruzella, B.A. (1996). Grammar instruction: What teachers say. *English Journal*, 85, 68-72.
- Polesel, J., Dulfer, N., & Turnbull, M. (2012). *The Experience of Education: The impacts of high stakes testing on school students and their families*. University of Western Sydney: Whitlam Institute. Retrieved from [https://www.whitlam.org/\\_\\_data/assets/pdf\\_file/0008/276191/High\\_Stakes\\_Testing\\_Literature\\_Review.pdf](https://www.whitlam.org/__data/assets/pdf_file/0008/276191/High_Stakes_Testing_Literature_Review.pdf)
- Pomphrey, C., & Moger, R. (1999). Cross-subject dialogue about language: Attitudes and perceptions of PGCE students of English and Modern Languages. *Language Awareness*, 8, 233-236.
- Poulin, D. (1980). Grammaire traditionnelle et grammaire nouvelle, ou De l'analyse à l'analyse structural [Traditional grammar and new grammar, or From analysis to structural analysis]. *Quebec Français*, 40, 29–32.

- Poulson, L., Avramidis, E., Fox, R., Medwell, J., & Wray, D. (2001). The Theoretical Beliefs of Effective Teachers of Literacy in Primary Schools: An Exploratory Study of Orientations to Reading and Writing. *Research Papers in Education*, 16, 271-292.
- Pullman, P. (2005, January 22). UK Education, Schools: Common sense has much to learn from moonshine. *The Guardian*. Retrieved from <https://www.theguardian.com/education/2005/jan/22/schools.wordsandlanguage>
- Qualifications and Curriculum Authority. (1998). *The grammar papers: Perspectives on the teaching of grammar in the national curriculum*. Hayes: QCA.
- Rimmer, W. (2008). Putting grammatical complexity in context. *Literacy*, 42(1), 9-35.
- Robson, C. (2002). *Real World Research. (2<sup>nd</sup> ed)*. Oxford: Blackwell Publishing.
- Rose, D. (2004). Sequencing and pacing of the hidden curriculum: How indigenous children are left out of the chain. In J. Muller, A. Morais, & B. Davies (Eds.), *Reading Bernstein, researching Bernstein* (pp. 145-170). London: Routledge Falmer.
- Rose, D. (2005). Democratising the classroom: A literacy pedagogy for the new generation. *Journal of Education*, 37, 127-164.
- Rose, D. (2006). Literacy and equality in the classroom. In A. Simpson (Ed.), *Proceedings of the National Conference on Future Directions in Literacy* (pp. 188-203). Sydney: University of Sydney.
- Rose, D. (2007). A reading based model of schooling. *Pesquisas em Discurso Pedagógico*, 4(2), 1-17. Retrieved from <https://www.readingtolearn.com.au/wp-content/uploads/2016/01/A-reading-based-model.pdf>

- Rothery, J. (1996). Making changes: Developing an educational linguistics. In R. Hasan, & G. Williams (Eds.), *Literacy in society* (pp. 86-123). London: Longman.
- Rothman, J. (2010). Theoretical Linguistics Meets Pedagogical Practice Pronominal Subject Use in Spanish as a Second Language. *Hispania*, 93(1), 52-65.
- Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing. The art of hearing data* (2<sup>nd</sup> ed.). Thousand Oaks: Sage Publications.
- Schiff, P. (2004). Leading Beyond What We Know about Grammar Instruction. *English Leadership Quarterly*, 27(1), 3-7.
- Schleppegrell, M.J. (2007). At Last: The Meaning in Grammar. *Research in the Teaching of English*, 42(1), 121-128.
- Schleppegrell, M., Achugar, M., & Oteiza, T. (2004). The grammar of history: Enhancing content-based instruction through a functional focus on language. *TESOL Quarterly*, 38(1), 67-93.
- School Curriculum and Standards Authority. (2014). *General Capabilities-Literacy-Introduction-Background*. Retrieved from <http://k10outline.scsa.wa.edu.au/home/p-10-curriculum/general-capabilities-over/literacy2/introduction/background>
- Seliger, H.W., & Shohamy, E. (1989). *Second language research methods*. Oxford: OUP.
- Shaw, D.M., & Dvorak, M.J., & Bates, K. (2007). Promise and Possibility – Hope for Teacher Education: Pre-service Literacy Instruction Can Have an Impact. *Reading Research and Instruction*, 46(3), 223 – 254.
- Shayer, D. (1972). *The teaching of English in schools 1900-1970*. London: Routledge & Kegan Paul.
- Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14.

- Shulman, L.S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57, 1-22.
- Shutz, A. (1967 [1932]). *The phenomenology of the social world*. Evanston, IL: Northwestern University Press.
- Simons, H. (2009). *Case study research in practice*. Los Angeles and London: Sage Publications.
- Smoot, W.S. (2001). An Experiment in teaching Grammar in Context. *Voices from the Middle*, 8(3), 34-42.
- Swanborn, P. (2010). *Case study research. What, why and how?* Thousand Oaks: Sage Publications.
- Thomas, A. (1987). Language teacher competence and language teacher education. In R. Bowers (Ed.), *Language Teacher Education: An Integrated Programme for ELT Teacher Training*. London: British Council, Modern English Publications.
- Thornbury, S. (1997). *About Language: Tasks for Teachers of English*. Cambridge: Cambridge University Press.
- Turner-Bisset, R. (2001). *Expert Teaching*. London: Fulton.
- Turvey, A. (2000). Teaching grammar: Working with student teachers 2. *Changing English*, 7, 139-152.
- van Lier, L. (1998). The relationship between consciousness, interaction and language learning. *Language Awareness*, 7, 128-145.
- Vavra, E. (1996). On not teaching grammar. *English Journal*, 85, 32-37.
- Vogt, W. P. (1999). *Dictionary of statistics and methodology*. Thousand Oaks (Calif): Sage.
- Wales, L. (2009). Reviving the dead butler? Towards a review of aspects of National Literacy Strategy grammar advice. *Language and Education*, 23(6), 523-539.

- Wang, E.L., Spalding, E., Odell, S.J., & Klecka, C.L. (2011). Understanding Teacher Education in an Era of Globalization. *Journal of Teacher Education*, 62, 115-120.
- Watson, K. (2010). Grammar and Usage: History and Myth. *English in Australia*, 45(2), 31-37.
- Watson, A.M. (2012). Navigating ‘the pit of doom’: Affective responses to teaching ‘grammar’. *English in Education*, 46(1), 22-37.  
<http://dx.doi.org/10.1111/j.1754-8845.2011.01113.x>
- Watson, A. M. (2013). Conceptualisations of ‘grammar teaching’: L1 English teachers’ beliefs about teaching grammar for writing. *Language Awareness*, 24(1), 1-14.  
<http://dx.doi.org/10.1080/09658416.2013.828736>
- Watson, A.M. (2015). The problem of grammar teaching: a case study of the relationship between a teacher’s beliefs and pedagogical practice. *Language and Education*, 29(4), 332-346.  
<http://dx.doi.org/10.1080/09500782.2015.1016955>
- Weaver, C., McNally, C., & Moerman, S. (2001). To Grammar or Not to Grammar: That is *Not* the Question. *Voice from the Middle*, 8(3), 17- 33.
- Wheeldon, J. (2010). Mapping Mixed Methods Research: Methods, Measures, and Meaning. *Journal of Mixed Methods Research*, 4(2), 82-102.  
<http://dx.doi.org/10.1177/1558689809358755>
- Williams, G. (2005). Grammatics in schools. In J. Webster, C. Matthiessen, & R. Hasan (Eds.). *Continuing Discourse on Language*, Vol. 1, (pp. 281-319). London: Equinox.
- Williams, P. (2009). *Analytic Report: Factors contributing to and ways of improving Australia’s educational performance, Submission to the Inquiry into the Administration and Reporting of NAPLAN Testing*. Canberra: Senate References Committee on Education, Employment & Workplace Relations.

- Williamson, J., & Hardman, F. (1995). Time for refilling the bath? A study of primary student-teachers' grammatical knowledge. *Language and Education*, 9, 23-45.
- Wilson, A.C., & Myhill, D.A. (2012). Ways with words: teachers' personal epistemologies of the role of metalanguage in the teaching of poetry writing. *Language and Education*, 26(6), 553-568.
- Wray, D. (1993). Student-teachers' knowledge and beliefs about language. In N. Bennett & C. Carré C (Eds.), *Learning to teach* (pp. 51-72). London: Routledge.
- Wyse, D. (2001). Grammar. For writing? A Critical Review of Empirical Evidence. *British Journal of Educational Studies*, 49(4), 411-27.
- Zebroski, J.T. (1994). *Thinking through Theory: Vygotskian Perspectives on the Teaching of Writing*. Portsmouth, NH: Boynton/Cook-Heinemann.
- Zohrabi, M. (2013). Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. *Theory and Practice in Language Studies*, 3(2), 254-262. <http://dx.doi.org/10.4304/tpls.3.2.254-262>

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# Appendices

## Appendix 1

### Information Sheet

#### Research Title

Primary Educators' knowledge of grammatical concepts as mandated in the Australian Curriculum (English): Comparison of Pre and Inservice Teachers.

#### Principal Researcher: Ross Mackenzie

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#### Purpose and Aim of Research

The purpose of this research is to ascertain what levels of knowledge pre and inservice teachers have of grammatical concepts found in the National Curriculum: English (NCE). Data gathered from this test will be analysed and provide a basis on which qualitative interviews will further explore any significant differences in knowledge. The aim is to identify any weaknesses and provide recommendations to improve preservice teacher knowledge of important grammatical concepts.

The new Australian Curriculum has reignited the media debate about whether teachers 'know grammar' well enough to teach it to their students. As a primary teacher, I became tired of the speculation and decided it would be useful to find out what pre and inservice teachers understand of the grammatical concepts found in the NCE and explore reasons for any differences in that understanding.

Therefore, the aim of this research is to answer decisively what pre and inservice teachers know about grammatical concepts in the Australian Curriculum. Once the results of the grammar test have been analysed, some participants will be asked to provide detailed, contextual information via an interview process. The test data and qualitative interviews will be used to develop recommendations for preservice teacher education to ensure graduates understand grammar concepts as mandated by the Australian Curriculum.

#### Participation Procedures and Protection

All participation is on a strictly voluntary basis.

For \*\*\*\*\* University students, the test will be conducted during a designated 'coaching' time for their convenience. However, volunteers for the interviews will be asked to give up a short period of their own time in order to participate (maximum of 30 minutes).

There are no significant risks to participants, other than the discomfort of having to give up some of their time or feel concerned that they are unable to answer test questions. However, it is important to remember that participation is entirely voluntary; preservice teachers are under no obligation from \*\*\*\*\* University to participate and all participants are able to withdraw at any time without prejudice.

All of the tests will only be identifiable by a linked code that will be kept secure and separate from test data in the Supervisor's Office. All tests and interviews will be scanned onto a secure computer at Curtin University and originals destroyed immediately. All electronic information will be kept for five years and then destroyed. Only the researcher and supervisors will have access to the electronic data.

Information gathered from the data collected will be used to form the basis of the Master of Philosophy Thesis and any subsequent publications. Participants will be invited to review any research material prior to publication.

Should participants want to make a complaint on ethical grounds they are invited to contact the Human Research Ethics Committee (secretary) on (08) 9266 2784 or [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au) or in writing C/ -Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth, WA, 6845).

**Ethical Guidelines**

**HREC statement** – *awaiting approval by the HREC.* **Approval Number** – *awaiting approval.*

## Consent Form

Test Number

### Research Title

Primary Educators' knowledge of grammatical concepts as mandated in the Australian Curriculum (English): Comparison of Pre and Inservice Teachers.

**Principal Researcher:** Ross Mackenzie

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I have been informed of and understand the purposes of the study. I have been provided with the opportunity to ask questions and I understand that I can withdraw at any time without prejudice.

Any information, which might potentially identify me, will not be used in published material.

I agree to participate in the study as outlined to me.

I would like to be provided with draft material prior to any publication of the study.

I do not wish to be contacted for the purposes of a short interview.

Full Name of Participant

Contact Number

Signature

Date

This study has been approved by the Curtin University Human Research Ethics Committee (EDU-126-13). The Committee is comprised of members of the public, academics, lawyers, doctors and pastoral carers. If needed, verification of approval can be obtained either by writing to the Curtin University Human Research Ethics Committee, c.-Office of Research and Development, Curtin University, GPO Box U1987, Perth, 6845 or by telephoning 9266 2784 or by emailing [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au)

## Institutional Consent Form

### Research Title

Primary Educators' knowledge of grammatical concepts as mandated in the Australian Curriculum (English): Comparison of Pre and Inservice Teachers.

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\*\*\*\*\* School has been informed of and understand the purposes of the study. I have authority on behalf of \*\*\*\*\* to provide consent for the research to be conducted, on a voluntary basis, utilising staff at \*\*\*\*\*. I have been provided with the opportunity to ask questions and I understand that the school can withdraw support for this research at any time without prejudice.

Any information, which might potentially identify the school, will not be used in published material. The school will have the opportunity to review any research material prior to publication.

I give permission for \*\*\*\*\* staff to participate in the research and the school agrees to participate in the study as outlined.

Full Name of Agent \_\_\_\_\_

Position Title \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

## Appendix 2

### Example of Questionnaire

Test Number

Sex  Male  Female

Date of Birth

Studying

Early Childhood  Primary  Secondary

Subject

I hope to teach (tick any areas that interest you)

<input style="width: 30px; height: 20px;" type="checkbox"/> Kindergarten	<input style="width: 30px; height: 20px;" type="checkbox"/> Year 6
<input style="width: 30px; height: 20px;" type="checkbox"/> Preprimary	<input style="width: 30px; height: 20px;" type="checkbox"/> Year 7
<input style="width: 30px; height: 20px;" type="checkbox"/> Year 1	<input style="width: 30px; height: 20px;" type="checkbox"/> Year 8
<input style="width: 30px; height: 20px;" type="checkbox"/> Year 2	<input style="width: 30px; height: 20px;" type="checkbox"/> Year 9
<input style="width: 30px; height: 20px;" type="checkbox"/> Year 3	<input style="width: 30px; height: 20px;" type="checkbox"/> Year 10
<input style="width: 30px; height: 20px;" type="checkbox"/> Year 4	<input style="width: 30px; height: 20px;" type="checkbox"/> Year 11
<input style="width: 30px; height: 20px;" type="checkbox"/> Year 5	<input style="width: 30px; height: 20px;" type="checkbox"/> Year 12

Specialist Teaching (e.g. Music, LOTE)

Learning Area	Years	Learning Area	Years

What type of school did you predominantly attend?

Primary:  Government  Independent  Catholic  Other

Secondary:  Government  Independent  Catholic  Other

In what country were you primarily educated?

Primary years: \_\_\_\_\_

Secondary years: \_\_\_\_\_

English Language Proficiency\*

Australian Year 12  GCE "O" Level  \*UTE  IELTS

Pearson Test of English  STAT  TOEFL

Other (Please specify)

Do you have a learning disability?  Yes  No

If Yes, please provide details.

What was the primary language spoken at home?

What was the first language you learned?

What other languages do you speak?



**Please circle the number that represents how you feel.**

I have an excellent understanding of the Australian Curriculum: English.

Strongly Disagree 

1	2	3	4	5
---	---	---	---	---

 Strongly Agree

I have an excellent understanding of grammar concepts as described in the Australian Curriculum.

Strongly Disagree 

1	2	3	4	5
---	---	---	---	---

 Strongly Agree

I think teaching grammar to students is important.

Strongly Disagree 

1	2	3	4	5
---	---	---	---	---

 Strongly Agree

I think teaching grammar helps students to become better writers.

Strongly Disagree 

1	2	3	4	5
---	---	---	---	---

 Strongly Agree

I feel confident when teaching my students grammar concepts in accordance with the Australian Curriculum.

Strongly Disagree 

1	2	3	4	5
---	---	---	---	---

 Strongly Agree

I am a confident writer.

Strongly Disagree 

1	2	3	4	5
---	---	---	---	---

 Strongly Agree

## Section 1

1. Grammar can be defined as:

- The language used to describe metacognition and principles of letter – sound formation, language development and writing.
- Learning to write based on specific rules extracted from the Latinate System of Grammar including the placement of nouns, verbs and adjectives in a paragraph and at a whole text level. These rules have been adapted to visual texts.
- The language we use and the description of language as a system. In describing language, attention is paid to both structure (form) and meaning (function) at the level of the word, the sentence and the text.
- I am unsure.

2. Metalanguage

- The theory of language cognition.
- Vocabulary used to discuss language conventions and use.
- Thinking about the use of Australian Standard English in education.
- I am unsure.

3. Sentences

- Express ideas using a subject, object and a pronoun.
- Are key units for expressing ideas.
- Are words that are punctuated correctly including a capital letter and a full stop.
- I am unsure.

4. Clause

- Includes a subject and an object and is often accompanied by a prepositional phrase.
- Is a unit of grammar usually containing a subject and a verb and that these need to be in agreement.
- Are groups of words that commonly occur in close association with one another (For example, “blonde” goes with “hair”).
- I am unsure.

5. A simple sentence:

- Has the form of a single clause.
- Is always singular.
- Is made up of a noun, verb and adjective.
- I am unsure.

6. A compound sentence:

- Has one or more subordinate clauses and is made up of a noun, verb and adjective.
- Has two or more main clauses of equal grammatical status, usually marked by a coordinating conjunction.
- Has three or more main clauses of equal grammatical status, usually marked by at least one coordinating conjunction.
- I am unsure.

7. Noun

- Consists of an idea, such as a person, as the major element and is accompanied by one of more modifiers.
- A word class that includes all words that denote physical and intangible ideas expressed in either past, present or future tense. Nouns are only ever the subject of a sentence.
- A word class that includes all words denoting physical objects as well as intangibles. A noun can function as a subject, an object or as part of a prepositional phrase.
- I am unsure.

8. A noun group / phrase

- Consists of a noun as the major element, alone or accompanied by one or more modifiers. The noun functioning as the major element may be a common noun, proper noun or pronoun.
- A clause that describes the noun using numerals, adjectives or auxiliary determiners and are usually joined by a coordinating conjunction.
- A collection of nouns separated from the object of the sentence by an adjective modifier to maintain meaning.
- I am unsure.

9. A verb:

- Is a “doing” word that that is normally found immediately before a noun or pronoun. For example: “The **running** man”.
- Is a class of word that describes a kind of situation as a happening or a state or an emotion. For example: “The man **ran happily**”.
- Is a word class that describes a kind of situation such as a happening or a state. For example, “The man **ran**” or “The man **is** a runner”. Verbs are essential to clause structure.
- I am unsure.

10. A modal verb:

- Expresses a degree of probability or a degree of obligation.
- Is also described as a “helping” verb. They precede the main verb.
- Is an irregular form of verb that signals a change in tense.
- I am unsure.

11. Adverb

- A word class that may modify a verb or an adjective.
- A word class that may modify a verb or an adjective, but not another adverb.
- A word class that may modify a verb, an adjective or another adverb.
- I am unsure.

12. Pronoun

- Is a form of common noun. Pronouns include words such as “I, “we”, “you”, “which”, “are” and “they”. Pronouns do not name a particular person, place, thing or quality. They can be concrete or abstract nouns.
- Is one of the three major grammatical types of noun. Pronouns include words such as “I”, “we”, “you”, which refer directly to the speaker or addressee (s), and “he”, “she”, “it”, “they”, which refer to a previously mentioned noun group / phrase.
- A pronoun is a form of proper noun that stops repetition of words such as “I”, “we”, “you”, “which”, “are” and “they”. Pronouns also serve as the names of particular persons, places, days / months and festivals.
- I am unsure.

13. Preposition

- A word class that usually describe the relationship between words in a sentence.
- Is generally marked by the suffix “s”.
- A meaningful element added to the beginning of a word to change its meaning.
- I am unsure.

14. Adverbials

- A group of words ending in “ly” that describe the verb. For example, “The boy ran quickly.”
- When one verb group / phrase immediately follows another with the same reference and are said to be in apposition. For example, “Canberra, the capital of Australia.”
- A word or group of words that contributes additional, but non-essential information, about the various circumstances of the happening or state described in the main part of the clause.
- I am unsure.

15. The difference between a main and subordinate clause

- A main clause is the object of the sentence and the subordinate clause is the subject of the sentence. Typically, the object of the sentence is at the beginning but this does not always have to be the case.
- A main clause does not depend on or function with the structure of another clause. A subordinate clause depends on or functions with the structure of another clause.
- A main clause has a noun and a verb group. A subordinate clause is dependent on the verb of the main clause to make sense.
- I am unsure.

16. Connective

- A word that joins other words, phrases or clauses together in logical relationships such as addition, time, cause or comparison.
- Words which link paragraphs and sentences in logical relationships of time, cause and effect, comparison or addition.
- Words that link words, groups / phrases and clauses in such a way that the elements have equal grammatical status.
- I am unsure.

17. Conjunction

- A word that joins other words, phrases or clauses together in logical relationships such as addition, time, cause or comparison.
- Words which link paragraphs and sentences in logical relationships of time, cause and effect, comparison or addition.
- Words that link words, groups / phrases and clauses in such a way that the elements have equal grammatical status.
- I am unsure.

18. Tense

- A grammatical category marked by an adjective in which the situation described in the clause is located in time.
- A grammatical category that places the noun in the past, present or future tense.
- A grammatical category marked by a verb in which the situation described in the clause is located in time.
- I am unsure.

19. Prepositional phrases:

- Are typically followed by a connective.
- Typically consist of a preposition followed by a noun group / phrase.
- Usually describe the possessive pronoun in relation to the modal verb.
- I am unsure.

20. Modality

- An area of meaning having to do with possibility, probability, obligation and permission.
- The genre of writing including recount, exposition, narrative and persuasive.
- The various processes of communication – listening, speaking, reading / viewing and writing / creating.
- I am unsure.

## Section 2

### Year 3 questions

21. Which word completes this sentence correctly?

I went for a ride \_\_\_\_\_ my bike.

on

into

in

onto

22. Which word completes this sentence correctly?

When my dog Ned has a bone he tries to keep it to \_\_\_\_\_.

itself

himself

oneself

myself

23. Which word completes this sentence correctly?

My friend sent me a get-well card \_\_\_\_\_ I broke my arm.

but

then

because

although

24. Which word can be used instead of *you and me* in this sentence?

John will be coming with you and me.

we

ourselves

they

us

25. Which word in this sentence is an action verb?

The girls ran up the steep hill, keen to beat their brother home.

girls

ran

steep

keen

26. Which word in this sentence is used to describe the *pencils*?

I found a torn packet of coloured pencils at the bottom of my schoolbag.

torn

coloured

bottom

schoolbag

27. Which one of these is a sentence?

Up in a tree.

I saw Pat.

I wonder what he.

Was doing up there.

28. Which sentence can be completed correctly by using the word *were*?

Write the word in the correct sentence.

The girl \_\_\_\_\_ reading a book.

When we get home, we \_\_\_\_\_ going for a swim.

Yesterday I \_\_\_\_\_ at the park.

They \_\_\_\_\_ camping near a river.

29. Which word in this sentence tells us **how** an action is done?

The first thing we learned at our swimming lessons was to get into the pool safely.

first

swimming

into

safely

30. Where should the missing apostrophe (') go in this sentence?



Lets ride our bikes down to the river to see if there are any pelicans.

31. In which sentence is the word *of* used **incorrectly**?

I searched through the mess at the bottom of my bag.

I am worried that I might of lost my pencil case.

It is full of my best pencils.

It is a pale shade of blue.

### Section 3

#### Year 5 questions

32. Where should the missing comma go in this sentence? (Insert the comma correctly).

I love picture books about horses dolphins and other animals.



33. Which option completes this sentence correctly?

When I arrived at school today, I \_\_\_\_\_ straight to meet my friends.

go

gone

went

had gone

34. Which sentence combines the information in the table correctly?

Type of animal	Number of shells	Where it lives
clam	two	ocean
snail	one	land

Snails and clams have one shell and two shells, and they live on land and in the ocean.

Clams live in the ocean and have two shells, while snails have only one shell and live on land.

Snails have one shell when they live on land, but clams have two shells when they live in the ocean.

Clams live in the ocean and snails live on land, while clams have two shells and snails have one shell.

35. Which pair of words completes this sentence correctly?

\_\_\_\_\_ exciting to see the sailing boat flying across the lake with \_\_\_\_\_ sails billowing in the wind.

Its      its

It's      it's

It's      its

Its      it's

### Year 7 Questions

36. Which word completes this sentence correctly?

My sister and \_\_\_\_\_ ride our bikes to school every morning.

me

I

myself

we

37. Which option completes this sentence correctly?

After school Mum is picking us up and we \_\_\_\_\_ to the pool for a swim.

go

went

might go

could have gone

38. Which word completes this sentence correctly?

Raj has \_\_\_\_\_ his key and he can't open the door.

forget

forgets

forgot

forgotten

39. The cave was cool and enticing. The team entered through the archway framing \_\_\_\_\_ inviting interior.

its

his

their

our

40. They ventured further in, finally emerging into a large dim cavern. \_\_\_\_\_ they had difficulty seeing their surroundings.

Later

At first

Eventually

Previously

41. Which words complete this sentence correctly?

Not only \_\_\_\_\_ first in English, but she is also in line for the top place in Science.

Jane comes

is Jane coming

isn't Jane coming

Jane will not come

42. Which pair of words completes this text correctly?

The most popular flavours of ice-cream \_\_\_\_\_ vanilla and chocolate. \_\_\_\_\_ you know that both flavours come from beans?

are      Do

is      Did

are      Does

Is      Do

43. Which sentence includes an apostrophe of possession?

Paul's phone was lost at school.

It's a beautiful day for a walk.

Sarah's going to town later.

She thinks that Jenny's arriving soon.

44. Numerous species of animals live in rainforests all over Earth. Millions of insects, reptiles, birds and mammals call them home.

In the second sentence, the pronoun *them* refer to

animals.

rainforests.

millions.

mammals.

45. Read these three sentences.

Two years went by. Then John returned from Charleville. Then John started university.

Which option accurately combines the information about John into a single sentence?

- John started university two years after he returned from Charleville.
- Two years after John returned from Charleville, he started university.
- Two years later, John returned from Charleville and started university.
- John returned from Charleville and two years later started university.

46. Which underlined word can be left out of this sentence, without losing any information?

We used the white bread when we ran out of the brown bread.

- used
- white
- we
- bread

47. In which sentence is *round* used as an adjective?

- She heard a bark and looked round for the dog.
- On the weekend he played a round of golf.
- You will need to round off those sharp corners on the table.
- A soccer ball is round in shape.

48. Which sentence uses capital letters correctly?

- A new 100m breaststroke record was set by Australian swimmer Leisel Jones at the Beijing Olympic Games.
- A new 100m breaststroke record was set by Australian swimmer Leisel Jones at the Beijing olympic games.
- A new 100m Breaststroke Record was set by Australian Swimmer Leisel Jones at the Beijing Olympic Games.
- A new 100m Breaststroke record was set by Australian Swimmer Leisel Jones at the Beijing Olympic games.

49. Which sentence uses an adverb correctly?

- Jan arrived lately to the chess club meeting.
- Lee conducted his science experiment confidently.
- Ben pulled at the string slow so it did not break.
- Cass grabbed her bag and ran to the shops as quick as she could.

50. The bell rang to signal the return to classes after lunch and Pat rushed to the art room. Her pottery dish had been fired in the kiln overnight and she was keen to check on it.

Which event happened first?

- The bell rang.
- Pat rushed to the art room.
- The pottery dish was fired in the kiln.
- Pat checked on her pottery dish.

51. Which of these words is a noun?

hopeless

respectful

nervously

cleverness

52. Which is a correct sentence?

Sarah, who has four younger brothers, are going to the movies tonight.

The dogs in the backyard growls when a stranger approaches.

The racquets for the tennis match are in the locker.

The charger for the mobile phones beep when the batteries are charged.

\*Test Acronyms:

\*\*\*\*\* University Test of English  
International English Language Testing System  
Special Tertiary Admissions Test  
Test of English as a Foreign Language

## Appendix 3

### Selection of Descriptions

Descriptions Selected	Experienced Teacher 1	Experienced Teacher 2	Experienced Teacher 3
Foundation			
Language			
Understand that some language in written texts is unlike everyday spoken language.	Considered	No	No
Understand that punctuation is a feature of written text different from letters; recognise how capital letters are used for names, and that capital letters and full stops signal the beginning and end of sentences.	Yes	Yes	Yes
Recognise that sentences are key units for expressing ideas.	Yes	Considered	Yes
Recognise that texts are made up of words and groups of words that make meaning.	Yes	Considered	Yes
Literacy			
Create short texts to explore, record and report ideas and events using familiar words and beginning writing knowledge.	No	Yes	Yes
Participate in shared editing of students' own texts for meaning, spelling, capital letters and full stops.	No	Yes	Yes
Year 1			
Language			

Recognise that different types of punctuation, including full stops, question marks and exclamation marks, signal sentences that make statements, ask questions, express emotion or give commands.	Yes	Yes	Yes
Identify the parts of a simple sentence that represent “What’s happening?”, “Who or what is doing or receiving the action?” and the circumstances surrounding the action.	Yes	Yes	Yes
Explore differences in words that represent people, places and things (nouns and pronouns), actions (verbs), qualities (adjectives) and details like when, where and how (adverbs).	Yes	Yes	Yes
Literacy			
Create short imaginative and informative texts that show emerging use of appropriate text structure, sentence-level grammar, word choice, spelling, punctuation and appropriate multimodal elements, for example illustrations and diagrams.	No	Yes	No
Reread student’s own texts and discuss possible changes to improve meaning, spelling and punctuation.	No	Yes	No
Year 2			
Language			
Recognise that capital letters signal proper nouns and commas are used to separate items in lists.	Yes	No	Yes
Understand that simple connections can be made between ideas by using a compound sentence with two or more clauses and coordinating conjunctions.	Yes	Yes	Yes

Understand that nouns represent people, places, things and ideas and can be, for example, common, proper, concrete and abstract, and that noun groups can be expanded using articles and adjectives.	Yes	Yes	Yes
Literacy			
Reread and edit text for spelling, sentence-boundary punctuation and text structure.	No	Yes	No
Year 3			
Language			
Understand how different types of texts vary in use of language choices, depending on their function and purpose, for example tense, mood, and types of sentences.	Yes	Yes	Yes
Understand that paragraphs are a key organisational feature of written texts.	Yes	Considered	Yes
Know that word contractions are a feature of informal language and that apostrophes of contraction are used to signal missing letters.	Yes	Considered	No
Understand that a clause is a unit of meaning usually containing a subject and a verb and that these need to be in agreement.	Yes	Yes	Yes
Understand that verbs represent different processes (doing, thinking, saying, and relating) and that these processes are anchored in time through tense.	Yes	Yes	Yes
Learn extended and technical vocabulary and ways of expressing opinion including modal verbs and adverbs.	Yes	Yes	Yes
Construct texts featuring print, visual and audio elements using software, including word processing programs.	Considered	No	No

## Literacy

Reread and edit texts for meaning, appropriate structure, grammatical choices and punctuation.	No	Yes	No
--	----	-----	----

## Year 4

### Language

Understand how texts are made cohesive through the use of linking devices including pronoun reference and text connectives.	Yes	Yes	Yes
---	-----	-----	-----

Recognise how quotation marks are used in texts to signal dialogue, titles and reported speech.	Yes	Yes	Yes
---	-----	-----	-----

Understand that the meaning of sentences can be enriched through the use of noun and verb groups and prepositional phrases.	Yes	Yes	Yes
---	-----	-----	-----

Investigate how quoted (direct) and reported (indirect) speech work in different types of text.	Yes	Yes	Yes
---	-----	-----	-----

Understand how adverbials (adverbs and prepositional phrases) work in different ways to provide circumstantial details about an activity.	Yes	Yes	Yes
---	-----	-----	-----

## Year 5

### Language

Understand how possession is signalled through apostrophes and how to use apostrophes of possession for common and proper nouns.	Yes	Yes	Yes
--	-----	-----	-----

Understand the difference between main and subordinate clauses and how these can be combined to create complex sentences through subordinating conjunctions to develop and expand ideas.	Yes	Yes	Yes
--	-----	-----	-----

Understand how noun and adjective groups can be expanded in a variety of ways to provide a fuller description of the person, thing or idea.	Considered	Yes	Yes
---	------------	-----	-----

Understand the use of vocabulary to express greater precision of meaning, and know that words can have different meanings in different contexts.	Yes	No	No
Year 6			
Language			
Understand the uses of commas to separate clauses.	Yes	Yes	Yes
Investigate how clauses can be combined in a variety of ways to elaborate, extend or explain ideas.	Yes	Yes	Yes
Understand how ideas can be expanded and sharpened through careful choice of verbs, elaborated tenses and a range of adverbials.	Yes	Yes	Yes
Year 7			
Language			
Understand the use of punctuation to support meaning in complex sentences with prepositional phrases and embedded clauses.	Yes	Yes	Yes
Recognise and understand that embedded clauses are a common feature of sentence structures and contribute additional information to a sentence.	Yes	Yes	Yes
Understand how modality is achieved through discriminating choices in modal verbs, adverbs, adjectives and nouns.	Yes	Yes	Yes
Investigate vocabulary typical of extended and more academic texts and the role of abstract nouns, classification, description and generalisation in building specialised knowledge through language.	Considered	No	No

## Appendix 4

### Interview Schedule

Introduction of the interviewer.

Hello, my name is Ross Mackenzie, you may remember me from a little while ago when I asked whether you were willing to complete a questionnaire on grammar terminology etc.

During the interview, I would like to discuss with you the following topics: your perception of grammar and the NCE (affective and beliefs); how you conceptualise grammar; and, following this, I would like you to pop your teacher's hat on and take an evaluative point of view with respect to grammar pedagogy in schools and pre-service institutions. To begin with I will make very general statements

#### Grammar and the National Curriculum

Main Questions	Additional questions	Clarifying questions
When I say the words "Grammar" and "National Curriculum, what comes to mind for you from a teaching point of view?	What type of grammar is in the NCE?	
	Do you feel it's important to have a knowledge of the grammar terminology that's used in the NCE?	Can you expand on this a little?
	How confident are you in your knowledge of grammar terminology that's used in the NCE?	Can you provide an example of what you mean?
	Has your confidence level in using grammar terminology in the NCE changed since completing the grammar terminology questionnaire?	(Use pauses and wait until person has definitely stopped speaking)
	Do you feel it is important to model grammar and, if so, why?	Why?

	Do you feel confident to teach grammar concepts as they arise?
	How were your beliefs and feelings about grammar formed?
How do you define grammar?	Has your definition of grammar changed in any way over time?
What does grammar teaching look like?	How the introduction of grammar into the NCE changed your concept of grammar?
	Do you think it helps students to learn a second language in order to improve their understanding of grammar in the first of vice versa?
How effective is grammar teaching in improving literacy standards?	Has the NCE changed your view on the rationale for teaching grammar?
	What is the most effective method for teaching grammar?
	Has there been any change in grammar content taught in your classroom since the introduction of NCE?
	Can you describe / evaluate your experiences of learning grammar or grammar pedagogy when a pre-service teacher?
Is there anything else you would like to add about grammar, the NCE or ....?	