

2015

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Recommended Citation

Carey, M. D., Christie, M., & Grainger, P. (2015). What Benefits can be Derived from Teaching Knowledge about Language to Preservice Teachers?. *Australian Journal of Teacher Education*, 40(9).
<http://dx.doi.org/10.14221/ajte.2015v40n9.2>

This Journal Article is posted at Research Online.
<https://ro.ecu.edu.au/ajte/vol40/iss9/2>

What Benefits can be Derived from Teaching Knowledge about Language to Preservice Teachers?

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Abstract: This paper evaluates the validity of teaching English grammar to preservice teachers in a teacher education course at a regional university. The course was delivered in blended mode using the grammar component of My Writing Lab Global (MWLG) and face-to-face instruction. The aim of this study was to establish if there are benefits to derive from teaching knowledge about language (KAL) to preservice teachers. Our quasi-experimental study found MWLG was well-received by participants who believed it had improved their KAL; this improvement was confirmed by 10% improvement on a pre and post KAL test ($p < .001$). MWLG scores and the KAL test also reliably predicted other academic competencies: the students' accumulated GPA and their final written assessment scores for the course ($r = .4$ to $.54$; $p < .01$). Collectively, these findings suggest that explicit KAL is valued and valid knowledge and should be included in teacher education programs.

Introduction

The relative value of explicit teaching of grammar in Australian schools is a much debated topic with many papers written from opposing sides, but few of these papers are empirical and many of them are purely polemic (Myhill, Jones, Lines, & Watson, 2012). With the launch of a national curriculum, are we any closer to a theory for the teaching of literacy? Recent meta-analyses of the literature (Myhill & Watson, 2014) suggest that theorists and methodologists are beginning to develop coherent strategies regarding the place of grammar within literacy, but they are yet to be transferred to the mainstream of teacher education programs or classroom practice. It would also seem that many powerful stakeholders are yet to understand the contemporary concepts of language and literacy informing the Australian Curriculum. For instance, the overview of the Australian Curriculum for English, Language strand, endorses a socially situated and functionally oriented view of language (language-in-use) and the cognitive discovery of language structure (language-as-system):

In the Language strand, students develop their knowledge of the English language and how it works.... They discover the patterns and purposes of English usage, including spelling, grammar and punctuation at the levels of the word, sentence and extended text, and they study the connections between these levels. By developing a body of knowledge about these patterns and their connections, students learn to communicate effectively through coherent, well-structured sentences and texts. They gain a consistent way of

understanding and talking about language, language-in-use and language-as-system, so they can reflect on their own speaking and writing and discuss these productively with others (ACARA, 2015).

Setting aside the larger issue of whether grammar should be explicitly taught to students, an aspect of this debate that has not received much attention in the form of empirical studies, except for one recent study (Fenwick, Endicott, Quinn, & Humphrey, 2014), is what benefits flow from teachers improving their grammatical knowledge? What benefits can be derived from teaching knowledge about language (KAL) to preservice teachers? This question relating to the professional preparation of teachers is the focus of our study.

KAL and Personal Literacy Policy Drivers

Tertiary education providers of teacher education programs are required by their accreditation bodies to prepare preservice teachers to graduate with a set of high professional standards. KAL is required to teach the language strand within the English learning area of the Australian Curriculum (ACARA, 2015) and to meet the assessment requirements for the National Assessment Program – Literacy and Numeracy (NAPLAN, 2011). The Australian professional standards for teachers determined by the Australian Institute for Teaching and School Leadership (AITSL, 2015a) are less specific about what constitutes language and literacy. However, the standards relate the need for teachers to have a high level of knowledge of the English language as a general competency which should develop as teachers move towards being lead teachers, and this knowledge needs to be applied across the whole curriculum, not just in the English language and literacy learning area.

The community perception that teachers' KAL needs to be improved has fuelled a longstanding debate about the preparation of teachers across all content disciplines and has been detailed as a concern in national and state reviews of teacher training, school curricula and pedagogy (Craven et al., 2014; Freebody, 2009; Harper & Rennie, 2009; Loudon et al., 2005; Masters, 2009). The government-funded, Loudon et al. review (2005) investigated the needs of beginning teachers to teach literacy in schools. The review details the perceptions of beginning teachers and their senior staff colleagues, with senior staff identifying a need for stronger preparation in personal literacy of new graduates, and both cohorts desiring stronger preparation in specific literacy strategies, and in preparation to use these strategies in teaching and assessment.

Another study investigating Australian preservice teachers' KAL found that the participants' knowledge was 'fragmented and lacked depth', and 'most did not feel adequately prepared to use their knowledge in future teaching' (Harper & Rennie, 2009, p.22). The most recent government contracted independent report into teacher education in Australia, *Action Now: Classroom Ready Teachers*, also known as the Craven report (Craven et al., 2014) has also recommended that 'preservice teachers must develop a thorough knowledge of content they will go on to teach':

Recommendation 17: Higher education providers equip all primary and secondary preservice teachers with a thorough understanding of the fundamentals of teaching literacy and numeracy (Craven et al., 2014, p.15).

Some of the abovementioned report findings have been criticised and dismissed for taking a narrow linguistic, and unreasonable deficit view of the knowledge of teachers, claiming they do not represent the broader range of knowledge teachers possess, such as knowledge of critical, digital and multimodal literacies (Honan, Exley, Kervin, Simpson, &

Wells, 2013). However, while these other areas of language and literacy may be better understood by teachers, and form a substantial component of the Australian Curriculum, this does not mean that teacher KAL should be dismissed as essentially deficit in nature and excluded. The view of the preceding authors is reported in a study contextualised in four of Australia's most prestigious metropolitan universities and only one larger regional university. For regional teacher education programs attended by students with a low Australian Tertiary Admission Rank (ATAR), from low socio-economic, and first-in-family to study groups, there is a more visible need for explicit education on KAL due to their conceivably poor personal KAL (Bostock & Boon, 2012).

In contrast to Honan et al., a study of the literacy skills of secondary teaching undergraduates (Moon, 2014) was conducted at an Australian multi-campus metropolitan university in a course dealing with literacy in teaching and learning with a sample of 203 preservice teachers. The participants underwent diagnostic testing on three dimensions of general literacy: spelling; vocabulary and word building; punctuation, sentence construction and grammar. They were also tested on three dimensions of teacher literacy: professional literacy, general pedagogical literacy, and discipline-based pedagogical literacy. The test was not validated or independently standardised or normed, as it was claimed by the author to be '...used by the teaching team to plan a remediation program that targets any weaknesses...', instead the test data were '...offered as a prompt for research and policy development, not as results of a definitive investigation' (p.117). The results of the study are consistent with the previously mentioned reviews and reports that present a concerning picture of personal teacher literacy. The author concludes that the '...problem can only be addressed in future by setting and applying appropriate admission standards and intervening much sooner in students' academic careers' (p. 128).

In response to the Masters' Report recommendations to improve literacy, numeracy and science learning in Queensland primary schools (Masters, 2009), the Queensland College of Teachers (QCT) decided to introduce a teacher pre-registration test covering personal literacy, numeracy and science knowledge so that preservice teachers meet threshold levels of knowledge about the teaching of literacy, numeracy and science and have sound levels of content knowledge in these areas (QCT, 2011a; QCT, 2011b). Due to budgetary constraints of the incoming state government at the time, the pre-registration test, which was meant to commence in mid-2012, initially to be rolled out for primary level teachers, was postponed.

Following this suspended Queensland initiative was a plan by AITSL to require initial teacher education programs throughout Australia to demonstrate that preservice teachers have a requisite level of personal literacy and numeracy upon entry to their university program. This initiative aligns with Program Standard 3.1 for initial teacher education program accreditation:

All entrants to initial teacher education will successfully demonstrate their capacity to engage effectively with a rigorous higher education program and to carry out the intellectual demands of teaching itself. To achieve this, it is expected that applicants' levels of personal literacy and numeracy should be broadly equivalent to those of the top 30 per cent of the population (AITSL, 2011, p.12).

However, the AITSL proposal is poorly conceived, especially concerning the justification of what constitutes the top 30%. The guiding document (AITSL, 2013) titled *Standard 3: Program Entrants, Year 12 study score results as proxy indicators of personal literacy and numeracy* states development of the scheme was undertaken by a collaboration of AITSL and six members of the Australasian Curriculum, Assessment and Certification Authorities (ACACA) – the body for CEOs of assessment agencies. It would have been

appropriate to also consult the Australian Council of Educational Research (ACER), the federal body charged with research into assessment, test development and evaluation¹.

In short, standard test validation procedures have been overlooked in the development of the 30% concept. The 30% metric is based on spurious equivalence assigned between achievement standards in state based senior secondary tests and a public service exam called the Australian Core Skills Framework (ACSF) (e.g. in Queensland the 4th level of achievement of High Achievement (HA) in year 12 English is questionably associated with level 4 on the ACSF). Correlation statistics that would normally be required to show predictive validity between these test measurements are absent from the available literature, but any such correlation is faulty, because for correlation to be valid there still needs to be a reasonable face validity to make the association – which there is not. In lay terms, AITSL and the ACACA are comparing apples with bananas.

The federal government response to the recent Craven Report (Craven et al. 2014) released in January 2015 advocates for a plan to develop a national pre-registration test ‘to make sure that those going into teaching have the right mix of academic and personal qualities that give them the best chance of becoming effective teachers’. The plan is to charge AITSL with the task of creating a test with a focus on measuring the personal literacy and numeracy of teachers:

Importantly, teachers must possess strong personal literacy and numeracy skills to foster the development of these skills in their students. The Government will therefore work with universities to make available a national literacy and numeracy test for teacher education students graduating from 2015 (Australian Government, 2015, p.6).

And it is apparent that the top 30% metric will still be used as the benchmark:

Recommendation 13: Higher education providers use the national literacy and numeracy test to demonstrate that all preservice teachers are within the top 30 per cent of the population in personal literacy and numeracy (Craven et al., 2014, p.17).

Despite the questionable validity of a single test to provide a measure of preservice teacher personal literacy benchmarked at the top 30% of literate Australians, the underlying claim that teachers should require a higher level of meta-linguistic understanding than their students, so that they can more readily identify their needs and respond appropriately, is logical. But what level and type of KAL do *teachers* require to assist students, and if they have not attained this knowledge in school, *when* will they learn it?

KAL in preservice teacher education

Over the past six years the first author has taught an undergraduate education course called *The English Language* in which one of the tasks preservice teachers are asked to perform, in order to quickly ascertain their fundamental level of KAL, is to underline the verbs in a single paragraph (four different types: action; to be; auxiliaries and phrasal). Less than 10, out of over 500 preservice teachers could do this for all classes of verb. In general they could identify most of the action verbs that represent physical actions such as run and

¹ Since submitting this paper, AITSL have now partnered with ACER in the development of the test and released an assessment framework document (AITSL, 2015b) detailing the test benchmarking process as a two day workshop that also considered two other international tests, but the document does not mention a predictive validation process. Presumably this will occur in the ACER-run trials of the test commencing August 2015.

play, but did not identify *fluctuate* as a verb. They did not identify the forms of the verb “to be” (*am, is, are, was, were*) as verbs; not all classes of auxiliaries were identified and the concept of a phrasal verb (verb + preposition) was new to all preservice teachers, except those who had learnt a language or taught English as a second language.

The verb identification activity establishes that this cohort of future teachers cannot parse a sentence to identify verbs, but is this a necessary ability? Some proponents of explicit grammar teaching (Carter, 1990; Englert, Raphael, & Anderson, 1992) claim that the metacognitive ability to categorise parts of speech in context, so that form may be discussed and made cognisant, is a fundamental ability required to make informed decisions about structure and punctuation when constructing sentences. It is argued that ‘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). The level of assistance provided to students depends upon the type of grammar the teacher has learned and the way in which it is taught to students. The type of grammar preferred by the designers of the Australian curriculum is descriptive rather than prescriptive. Systemic Functional Grammar (SFG) combines more traditional lexical or syntactical aspects of grammar with the discourse elements of organization, development and cohesion (Christie & Derewianka, 2009; Halliday, 1994; Hasan, 2002). Teaching grammar through the SFG theoretical frame supports learners’ ability to think grammatically about language (Freebody, Maton, & Martin, 2008; Macken-Horarik, Love, & Unsworth, 2011; Williams, 2005).

Such linguistic matters may not hold teachers’ interest, or the interest of children, in the way it does for linguists. An understanding of language structure should not be simply transferred to learners, as it was, for teachers and learners before grammar was dropped from Australian school curricula in the 1970’s. Applied linguists currently advocate for learning that contextualises the teaching of language within purposeful, culturally and socially authentic activities (Myhill & Watson, 2014), and there is a general preference for task based and cognitively engaging activities (Willis & Willis, 2007). The contextualised teaching of knowledge about language is referred to in English as an Additional Language practice as focus on form (in-situ noticing of language form in context), rather than the traditional focus on forms (one decontextualized form at a time) (Harmer, 2007). Despite the resurgence in grammar course books, texts that take a contextualised focus on form approach through purposeful, authentic, activity based and cognitively engaging activities are scarce, except for one recent text *Teaching English grammar: A handbook for Australian teachers* (Campbell & Ryles, 2013).

The aim of *focus on form* resources is for school students to develop KAL through cognitive awareness exercises applied to practical tasks. The role of the teacher in this approach is not to teach learners grammar prescriptively, but to help them to notice features of language and guide them to understand how grammar works (Ellis, 2002). Presumably, for teachers to be well-equipped in this role, they need to be able to understand and comment on student writing, know what coherent and cohesive writing looks like, and develop a KAL that can be applied to the practical purpose of providing advice that learners with diverse needs can comprehend.

Addressing teachers’ KAL is likely to require multiple approaches to ensure comprehensive coverage of the aspects of personal literacy that our teachers require to be effective in the classroom. The approach to teaching KAL in a tertiary preservice education course that is outlined in this paper is just one of many approaches that might be required to develop the first strand of the Australian curriculum for English: knowing about the English language. Once KAL is attained, it then needs to be transferred to teaching practices, which in itself is extremely challenging (Brisk & Zisselsberger, 2011; Gebhard, Willett, Caicedo, & Piedra, 2011) and requires that preservice teachers make associations between their KAL and

particular discourses of the various disciplines taught in schools (Fenwick, Endicott, Quinn, & Humphrey, 2014).

Starting from the premise that teaching grammatical knowledge to teachers (and by extension to their students) does not necessarily imply a deficit approach to teaching language, our study uses an online tool to teach KAL to preservice teachers to determine if KAL aligns with and supports the development of other academic literacies such as academic writing. The overarching aim is to evaluate the validity of teaching English grammar to preservice teachers in a teacher education course at a regional university.

The study

This study was conducted with preservice teachers at a regional Australian university which has a high proportion of first in family to study, low SES, and mature age students. To develop our students' KAL in an undergraduate Education course *The English Language*, we used an online learning solution called My Writing Lab Global version 1 (MWLG, 2013) combined with face-to-face lectures and tutorials. MWLG is a Learning Management System (LMS) developed by Pearson Education which we used to run a blended learning program, whereby students developed KAL through online consolidation activities accompanied by lectures and tutorials. Students were free to study the online component at their own pace within recommended timelines, so some students worked on the online component ahead of the face-to-face component and some worked on the online component after the lectures and tutorials. The first author had a major input into the development of the grammar component of MWLG as a contracted technical editor, contributing to content and amendments to the program.

The content covered in the 40-hour course consisted of a wide range of KAL aspects, as well as methods and techniques for language learning and teaching of the 'basic literacy' content required by the Australian curriculum. The broader themes and topics covered in the course are the following: language as social interaction; traditional and functional grammar terms; genre; syntax, morphology, lexicology and phonology; speech/writing differences; first and second language acquisition and Freebody and Luke's (1990) *Four Resources Model*. As KAL input, the students completed 29 topics from the grammar section of MWLG as a 20% component of assessment for the course. The topics covered language terms and concepts such as the following: identifying parts of speech, identifying phrases, types of clauses, types of sentences, and punctuation.

The separation of independent online learning of grammar to a time outside lecture and tutorial time is desirable for various reasons. It removes the cognitive learning of factual knowledge about language from the face-to-face, collaborative learning mode of tutorials and places it in a format outside the classroom in which online learning allows systematic staging, sequencing, and repetition of learning material which students can access and review at their own pace. Conversely, using this online component for consolidation of knowledge allows face-to-face time to be spent on cooperative learning through interactive activities and drilling deeper into content (Hughes, 2012).

The online mode provides immediate feedback to confirm understanding of exercises and quizzes. MWLG is built on a staged content and assessment framework of *watching*, *recalling*, and then *applying* (Figure 1) with repeated exposure to language topics in contextualised activities, with feedback after the recall and apply stages. A grade recording function provides a summative record of knowledge attainment in areas of language that can be selected from a list of topics by the instructor. Users are encouraged to attempt further recall and apply activities to improve upon their previous attempts.

Parts of Speech, Phrases, and Clauses

Review Materials

1 Watch: Parts of Speech, Phrases and Clauses View

| Activities | Score | Sets Available | Sets Taken |
|------------|---------------------|----------------|------------|
| 2 Recall * | Resume | 2 | 0 |
| 3 Apply * | Begin | N/A | 0 |

* = Required

Students can firstly view a short module on the topic to cover the content.

Phrasal verbs shouldn't be used in formal writing. These verbs need to be transformed into action verbs. A phrasal verb consists of a verb + one or more prepositions.

verb preposition

e.g. **turn up**

verb preposition

e.g. **put up with**

 preposition

2

Informal: She **turned up** on time.
Formal: She **arrived** on time.
Informal: The study **looked at** the impact of climate change.
Formal: The study **investigated** the impact of climate change.

| Activities | Score | Sets Available | Sets Taken |
|------------|---------------------|----------------|------------|
| 2 Recall * | Resume | 2 | 0 |
| 3 Apply * | Begin | N/A | 0 |

* = Required

3

The student can then take a recall exercise that tests their ability to recall the content knowledge provided in the first watch screen.

Parts of Speech, Phrases, and Clauses: Recall

1. Identify the personal pronoun/s: I dropped her off at the bus stop.

a) bus
 b) off, at
 c) I
 d) I, her

4

Submit Question 1 of 10

| Activities | Score | Sets Available | Sets Taken |
|------------|--------------------|----------------|------------|
| 3 Apply * | Begin | N/A | 0 |

* = Required

5

The student can then complete an 'Apply' activity.

INSTRUCTIONS

Identify the conjunctions by clicking on them in the paragraph below:

Some sociologists define a crowd as a large, temporary gathering of people, and examples of crowds include fans at a sports arena or holiday shoppers the mall in December. These people come together for a specific purpose, but they don't interact with each other. A mob, on the other hand, is a group of people who interact strongly with each other, and that interaction is based on emotion rather than reason. When a large crowd gathers, and a few individuals suddenly

6

The 'Apply' activity is usually a proof-reading activity that involves highlighting or inserting text.

Figure 1: MWLG staged framework of watching, recalling, and applying.

The face-to-face component of the course, consisting of two-hour lectures in a lecture theatre with approximately 50 students and two-hour tutorials with groups of 15 to 20, are both interactive sessions. The lectures comprise segments of traditional plenary lecturing interspersed with interactive group and pair work. The course covers both traditional and functional grammar and teachers are encouraged to view their role as teachers to include both roles of *prescribing* and *describing* language use. They are given the metaphor of sometimes wearing a traditional grammar hat, for instance when discussing conventions of sentence level style in formal genres (a bottom up perspective), and wearing a functional grammar hat when discussing moves and steps in the de-construction and construction of whole texts (a top down perspective).

The group work in tutorials models teaching techniques and KAL content that students will apply in their classrooms as teachers of language and literacy. Preservice teachers regularly experience what it is like to be on the receiving end of these techniques by having them play the role of primary or secondary students. This constructivist, experiential and interactive learning approach maximises opportunities for reflection on learning and teaching processes.

Methods and participant groups

This study used a combination of qualitative and quantitative methods to evaluate the impact of the course over five sessions of delivery, spanning two and a half years out of the six years it has been running. Qualitative methods involved a survey to gain student feedback, which was then used in the iterative development of the course within an action research framework of plan, act, reflect, and revise (Kemmis & McTaggart, 1988). Quantitative methods consisted of an initial pilot study survey on aspects of the MWLG LMS and the face-to-face instruction with N=35 preservice primary teacher participants preparing for their forthcoming (later cancelled) preservice registration test, and four pre and post program tests on the KAL of n= 196 participants in four sessions of course delivery for The English Language.

In the pilot phase, the first author ran a program with N=35 preservice primary education students, who were all native English speakers. The program consisted of 10 hours of interactive lectures and additional online activities in MWLG which ran over five weeks. It took students between 4 and 10 hours to complete, as recorded in the program's grade book log. The participants were involved in a professional development program during September-October 2011 that was designed to prepare preservice teachers for the first QCT pre-registration test to be conducted in 2012. There were 26 females and 9 males in the group aged between 20 and 26 (mean = 22). The pilot group participants completed pre and post-tests on their KAL provided within the MWLG program. The tests were run five weeks apart; the pre and post test questions were identical, but randomised, and the participants were given no feedback on their answers to the questions to reduce the likelihood of a practice effect. The purpose of the pilot was to assess the suitability and efficacy of MWLG as an instructional tool and test the protocol for implementation within the four sessions of the main study to follow.

The four sessions were run in the undergraduate course, *The English language*, with n=196 native English speaking participants between February 2012 and September 2013. There were 116 females and 70 males in the group aged between 19 and 42 (mean = 24). Their programs of study were the following: early childhood (n=24), primary (n=56), and secondary (n=116). Like the pilot, the pre and post-test were run five weeks apart, the test

questions were identical, but randomised, and the participants were given no feedback on their answers.

Predictive validity correlations were performed on 196 test participant groups' cumulative MWLG activity scores, their KAL test scores, their final written 2000 word assessment task and their cumulative grade point averages (GPAs) for their early childhood, primary, or secondary undergraduate education program. A two-tailed Pearson Correlation test was used to determine the level of association between the variables to test the hypothesis that KAL predicts other academic competencies. If a strong association can be established, an argument can be made for the intrinsic importance of KAL for its influence on the academic literacy of preservice teachers, and by extension, for its importance in preparing proficient teachers of language and literacy with specialised KAL.

A control group was not used as it was considered unethical to deny this learning experience to students from the same cohort. To obtain an indication of whether these 196 test group students benefited from MWLG, in terms of their academic writing development, compared to previous cohorts of students who were not exposed to MWLG (N=164), the grades for the two groups' final written 2000 word assessment task, as well as the pass rates and the mean score for the course were compared. Other data gained from anonymous student feedback on teaching and courses (SETAC) provided a further indication of how MWLG impacted on the students' perceived level of post course KAL and academic writing ability.

The guiding questions for the evaluation were:

Q1. Is MWLG a reliable, user-friendly program?

Q2. Does MWLG improve preservice teacher KAL?

Q3. Does KAL contribute to other academic competencies?

Findings

Is MWLG a reliable, user-friendly program?

The professional development program used as a pilot study revealed several problems with the reliability of the MWLG interface. These problems were forwarded to the Acquisitions Editor at Pearson Education and were corrected through a technical editing contract that the first author held with Pearson Education to review the grammar section of the program.

Does MWLG improve preservice teacher KAL?

Despite the technical problems encountered in using the program in the pilot phase, which are reflected in 29% disagreement to questionnaire statement 5 in Table 1, the pilot group of participants thought they had improved their personal KAL (95% agreement responses to statement 1) and their personal language ability (85% agreement responses to statement 2) through using MWLG.

| | Disagree strongly | Disagree | Neutral | Agree | Agree strongly |
|--|-------------------|----------|---------|-------|----------------|
| 1. The content has enhanced my personal KAL | | | 5% | 71% | 24% |
| 2. The content has enhanced my personal language ability | | | 14% | 71% | 14% |
| 3. The information was clearly presented | 5% | 5% | 33% | 43% | 14% |
| 4. The tasks were clearly presented | 5% | 5% | 24% | 57% | 10% |
| 5. MWLG functioned well | | 29% | 19% | 43% | 10% |

Table 1: Statements about My Writing Lab Global (N=35)

This positive, though small-scale, pilot survey feedback was also supported by a statistically significant improvement in the participants' KAL revealed through a pre and post-test of KAL. The test used was a multiple choice test provided within MWLG that was run pre and post the pilot with 35 preservice teachers. There was a mean improvement in test scores of 7%: $t(34) = -8.894, p < .001$. This 7% improvement may seem small, but the MWLG test is scaled so that the recommended pass score or "mastery level" for the pre- and post-test is set at 70% (Pearson, 2013). Therefore, a 7% increase, as a proportion of the upper 30% required to achieve mastery of the content, is a considerable improvement.

To ascertain the level of association between the participants' post-course beliefs regarding gains in their personal KAL (questionnaire item 1) and their post-test KAL score, we conducted a Spearman rho correlation analysis on the data. A significant positive correlation was found between the students' response to the statement "the content in this online tool (MWLG) has enhanced my personal KAL" and their KAL test score ($r=.42; p < .001$).

The pilot group mean scores of 86% for the pre and 93% for the post tests showed a 'ceiling effect' because the test was designed for non-native users of English and not this cohort of native English users. The program was originally developed for learners who did not have English as their first language. The participants' pre- and post-test results revealed that the participants could answer the majority of the questions by accessing implicit knowledge. That is, their native English status gave them the ability to answer the questions on the basis of what sounded right to them, a strategy that bypassed the explicit knowledge being tested that should have been acquired cognitively through using MWLG.

Subsequently, the first author developed a 100 item multiple choice test for future use with native English users that required explicit knowledge and could not be answered by simply accessing an implicit understanding of patterns in the language. The questions required students to apply conceptual knowledge about language and not simply rely on surface level knowledge (Schmitt, 2008). The following is an example of the questions developed for the test. All of the options in the test question sound like correct English, but by applying the explicit knowledge of "dangling participles" options, one, two and four can be eliminated. The correct option is marked with an asterisk. Questions of this type were based on authentic examples of student writing errors:

Identify the sentence that most clearly conveys its intended meaning.

Grazing peacefully, we watched the herd of cattle in the paddock.

We watched, grazing peacefully, the herd of cattle in the paddock.

*We watched the herd of cattle grazing peacefully in the paddock.

Grazing peacefully, in the paddock we watched the herd of cattle.

The curriculum and assessment in the course was then adapted to use MWLG in blended mode with a total of N=196 participants over four sessions of the program. The new version of the test used with MWLG revealed a statistically significant 10% improvement in the participants' language knowledge with no ceiling effect when tested pre and post on two sessions of the course with n=107 participants, $t(106) = -10.72, p < .001$. The pass rate for this test was also set at 70%, so a 10% increase is considered a substantial improvement.

Is KAL predictive of academic competency?

A final aim of this study was to determine if acquiring KAL was a useful pursuit in and of itself, setting aside the idea that it may be an asset for teachers to implement the language strand of the Australian Curriculum. One arguable benefit of personal KAL is that it may be transferable to other language competencies in the academic context, namely,

academic literacy. If there is an association between KAL and other academic competencies in the tertiary context, this in itself makes KAL a worthwhile pursuit in the classroom in preparation for lifelong learning.

To determine the strength of the association between one measurable language competency and others, applied linguists commonly conduct predicative validity studies by using correlation statistics. In order for the studies to be methodologically and statistically reliable, homogenous groups of participants need to be sampled and the study variables need to have a reasonable likelihood of being associated. In this instance a homogenous group of undergraduate education students were sampled.

The students' knowledge about language, measured by KAL test scores and MWLG scores (the predictor variables) is tested for its association with academic performance, measured by a final 40%-weighted writing task, and accumulated GPA (criterion variables). These variables are assumed to have a reasonable likelihood of being associated because language knowledge is hypothesised to contribute to the broader academic proficiency measured by GPA across other education courses and to the writing task assessed at the end of the course. This hypothesis is supported by a frequent response from students in their formal SETAC feedback on the course that it has contributed to their general academic writing proficiency, for example:

I have grown from this course and it has improved my English both spoken and written greatly. I have received 3 assignments which have improved from a satisfactory level of grammar use, communication and clear and concise written expression to an enhanced or advanced level' (SETAC, 2012).

A correlation coefficient of $r = .30$ signifies what is termed a 'weak' positive relationship between variables. This weak relationship is based on the corresponding coefficient of determination $r^2 = .09$ which signifies that the predictor variable explains only 9% of the variance in the criterion variable. A correlation coefficient of $r = .30$, though weak, is generally seen as being of sufficient strength for validation purposes (Alderson, Clapham, & Wall, 1995).

| | GPA | Writing task |
|-----------------|------|--------------|
| MWLG scores | .481 | .412 |
| KAL test scores | .518 | .538 |

All correlations are significant at the .01 level (2-tailed).

Table 2: Pearson Correlation Results (n=196).

The results in Table 2 show all correlations to be positive, reflecting general agreement between the two variables of knowledge about language (as measured by MWLG and KAL test scores) and academic performance (as measured by the writing task and GPAs). In terms of strength of correlation, the coefficients are located within value ranges held to represent 'substantial' ($r = .40 - .70$) relationships between variables (Burns, 1997, p. 198). The correlations are all statistically significant at the 0.01 level, enabling extrapolation to wider populations.

The highest correlation is recorded for KAL scores with the writing task ($r = .54$), signifying that approximately 29% of the variance in the writing task is accounted for by variance in KAL test scores. This, seen in the context of findings generally reported in language assessment literature, represents an unusually strong relationship. The highest correlation recorded for the MWLG scores with GPA ($r = .48$) correspondingly signifies that 23% of variance in GPAs is accounted for by variance in MWLG scores. This finding, too, is relatively strong.

To obtain an indication of whether the test group students benefited from MWLG, in terms of their academic writing development in the course, or whether these gains could be due to other factors related to university study, we compared the final written 2000 word assessment task, course pass rates and mean overall course scores for the previous cohorts of students who were not exposed to MWLG with the test group's scores.

The test group achieved a higher mean score of 75% for the final written assessment task than the comparison group with a mean of 63% and the difference was statistically significant ($p < .001$). In the four sessions MWLG was integrated into the course to develop KAL, students achieved improved learning outcomes, and satisfaction with the course was higher. Course satisfaction as measured by anonymous SETAC results increased from 4.1 (on a five-point scale) in 2010-2011 to 4.7 in 2012-2013, a substantial increase of 0.6 (13%). In 2010-2011 the mean overall score for the course was 60% and the pass rate was 86% of students; in 2012-2013 the mean overall score increased to 71% and the pass rate improved to 94% of students.

In summary, the MWLG scores and the KAL test reliably predicted other academic competencies: the students' accumulated GPA and their final written assessment scores for the course which suggests a relationship exists between KAL and broader measures of academic proficiency. An analysis of difference between the test group and comparison groups' final written assessment task, course pass rates and mean overall course scores provides evidence that MWLG has impacted positively on the learning gains in the course. These findings collectively suggest KAL is important and should be included in teacher education programs alongside knowledge of functional language and literacy practices such as critical, multimodal, and digital literacies.

Conclusion

Universities are hard-pressed to find the time and resources to ensure teachers are prepared adequately with personal literacy. Education is one of the first portfolios that an incoming government with a different political vision acts on. Government actions affect a range of stakeholders, including government agencies such as AITSL and ACARA. This can lead to some confusion when an established Australian Curriculum emphasising functional literacy is suddenly required to adjust to a ministerial directive to 'get back to basics', which in English learning tends to mean an emphasis on grammar and spelling (Lu & Cross, 2014). In the eyes of some stakeholders these concepts are binary opposites, but the Australian Curriculum and the English language course for preservice teachers at the centre of our study suggest that this is not necessarily the case.

Our study has focussed on preservice teachers at a regional university, who, compared with students from more established metropolitan universities in Australia, have a disproportionately low ATAR, are the first member of their family to study at university, or have a low socioeconomic status. Our study provides an example of how to increase the KAL of marginalised groups of preservice teachers to meet state and federal professional standards. MWLG helps preservice students better define, for themselves, the nature and quality of their personal literacy with a potential beneficial impact on their academic literacy. This empirical study on a teacher education course, comprising a balanced composition of teaching the social function and linguistic form of English language, shows there are clear benefits to be derived from teaching KAL to preservice teachers.

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Acknowledgements

This program was the main exemplar for a Commonwealth Office of Learning and Teaching Citation for Outstanding Contributions to Student Learning “for excellence in developing curricula, resources and services that improve the English language skills and knowledge of pre-service teachers, colleagues and the wider student cohort”. We’d like to dedicate this achievement to the students and academic colleagues who provided feedback and Dr Lucy Elliot at Pearson Education for her support while we conducted action research on MWLG.