Online learning and pre-service teachers’ literacy knowledge and skills

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Abstract: This brief paper presents preliminary data about an investigation of pre-service teachers’ (PSTs) engagement with the imperative for individual up-skilling of their literacy knowledge. Embedded into a flexibly delivered four-year Bachelor of Education teacher education program from a regional university in NSW, Australia, this project sought online survey responses from PSTs about the set of knowledge and skills that will be required of them as primary (elementary) teachers. The document (see Appendix 1) was intended to prompt PSTs towards further up-skilling at a personal level. The study highlights challenges faced by staff and students in developing trusting relationships that motivate students to learn beyond the required tasks. Seeking an online pedagogy that focuses on inspiration, engagement and a passion for literacy underpins the study. The implications focus around skills, expectations and assumptions for staff and students in the teaching and learning in online environments.

Research Context and Problem

Set in the landscape of a flexibly delivered four-year Bachelor of Education teacher education program from a university in regional NSW, Australia, these students engage in generic tertiary unit (course) content online, and are expected to engage in tutorial activities through either online mode or face-to-face on-site tutorials. Future cohorts of PSTs will be surveyed to continue to gather data about this area. This project is grounded in four key understandings:

1. That Australian federal and state governments (Australian Institute for Teaching and School Leadership [AITSL], 2011; Department of Education and Communities NSW, 2013) now require students to successfully pass basic literacy and numeracy skill tests, thus increasing the imperative for Australian pre-service teachers (PSTs) to demonstrate advanced levels of literacy skills and knowledge (Department of Education and Communities NSW, 2013).

2. That the current undergraduate teacher education program in which these PSTs are enrolled does not teach those literacy skills and knowledge, rather it presumes that the PSTs either already have them, or will up-skill themselves to the appropriate level of demonstration of those skills and knowledge.

3. That a substantial percentage of students enrolled in programs such as this demonstrate poor levels of literacy skill in the presentation of written assignments (Radloff & Coates, 2010). When confronted with this dilemma, students appear to either welcome the feedback and seek further support, or continue with their study without acting on what the faculty staff present as a problem for their personal and professional learning.

4. That the opportunities for faculty staff to inspire and motivate PSTs to attend to their personal levels of literacy knowledge are further compounded in an online teaching environment (Loughran, 2006). Online contexts make establishment of trusting relationships that can support students in skill development more complex.

As such, this research has sought to garner information from students about their current self-assessed literacy knowledge and their intentions for future literacy learning. This research has also sought evidence about the perceived difficulties of motivating PSTs to act on perceived low levels of literacy skills and knowledge, and whether or not that might be compounded in online learning contexts (Kahu, 2013).
Literature Summary

For brevity’s sake, the following is a summary of key points from the academic literature that relate to these topics:

- Much social commentary abounds in the Australian initial teacher education (ITE) arena about the need for beginning teachers to have high levels of skill with literacy and numeracy (Moon, 2014) (see also https://teacheredtest.acer.edu.au/ http://theconversation.com/testing-teachers-basic-literacy-and-numeracy-skills-is-pointless-51566).
- Many ITE programs are now fully or partially delivered through a variety of online modes (Downing & Dyment, 2013).
- Student engagement in their own learning journey is a cornerstone to tertiary learning and is explicitly linked to student learning outcomes (Kahu, 2013; Pittaway, 2012; Radloff & Coates, 2010).
- Faculty staff need the opportunity to critically question, practice and discuss new pedagogical adaptations for use in online contexts (Redmond, 2011; Scheg, 2014). Making the move to online teaching is complicated and under-resourced when tertiary institutions see it as a cheap way to deliver programs to larger, geographically diverse cohorts of students (Downing & Dyment, 2013).
- The diversity of online learners (see Vai & Sosulski, 2015, p. for their taxonomy of online learners p.15) and the standardisation of teaching content, units and pedagogies (Scheg, 2014, pp. pp150-151), creates tensions for higher education teachers, particularly in the online landscape.
- Mediated communication in online learning modes creates challenges for building relationships, which Loughran claims is at the heart of quality teaching and learning programs (Loughran, 2005; 2006). Without strong learner-teacher interactions creating and stimulating motivational learning becomes compromised (Scheg, 2014)
- While there is ample scholarly literature on the ‘how to do it’ of online teaching and learning (Scheg, 2014) there is not so much research into what students actually acquire, like, think about or value in the online landscape (see https://akoaotearoa.ac.nz/projects/student-voice-effective-representation-and-quality).

Research Design

After noting the problem of the low levels of literacy skills in the undergraduate cohorts of students, two faculty staff teaching English curriculum units drafted a list of literacy skills and knowledge as an exemplar of what PSTs will need to have and understand to be effective teachers (see Appendix 1). After consultation with other language staff, various literacy curricula glossaries and texts, the list of literacy skills and knowledge was revised. It was then presented to the cohort of students undertaking the second year English curriculum unit. The document was intended to encourage and motivate them to further their individual learning in this area, outside of formal university study. After ethical clearance was granted, students were invited to participate in an online survey, seeking their responses to the presentation of the document about literacy skills and knowledge. Ethical requirements ensured anonymity for the participants, and that the completion of the survey was in no way linked to their successful completing of the teaching unit. From a potential cohort of 200 students, 33 responses were garnered. These included both demographic data and qualitative, open-ended responses. The demographic data sought information about participants’ age, gender, university course and entry pathway, and prior study. The Likert Scale questions (5 possible responses) with options for comments in some sections elicited both qualitative and quantitative data.

Findings, Discussion and Implications

Key findings as they relate to online teaching and learning are that these students, all learning through flexibly delivered units, were divided about their self-stated responses to the presentation of this document. Of the 108 responses from the 33 participants, 36 responses (38.8%) indicated the participant was ‘anxious, worried, nervous or distressed’ (that is, they felt negatively about the information provided); 34 (36.7%) were ‘ambivalent, disinterested, neutral or undecided’; and 38 (41%) were ‘affirmed, assured, confident or secure’.
Although the participant sampling was selective in that only ‘interested’ students responded, this preliminary set of data has shown that 79% (n=25) were ‘somewhat’ or ‘moderately’ confident at teaching students about literacy and yet that 88% (n=29) said they were likely to develop their literacy knowledge about the skills listed for them in the document.

This research has significance for online learning because, as students engage more in online modes, the opportunity for problematising their current levels of literacy knowledge and skill, and inspiring and motivating them to act on that remains challenging for faculty staff. Given that the participants were likely to be positively disposed to reading and literacy (with 75% of them indicating that they read for pleasure ‘sometimes’ or ‘intermittently’), 88% (n=29) of these students indicated that they were likely to further develop their personal literacy knowledge in some of these literacy areas. While the data did not specifically ask about the online delivery of the materials the researchers are asserting that the relationship building needed to encourage and support students to upskill their literacy levels is less likely to happen in the current online modes of delivery. Further research will determine the veracity of this claim.

Looking at a broader picture though, this study has highlighted several key issues inherent in the PSTs’ course and teaching units that are further compounded by online delivery modes. In order to develop and enact a strong pedagogy of online learning, this research anticipates cohesion in the teaching and learning areas for staff and for students. It highlights challenges with the intersection of PST engagement and delivery of quality education in anticipation of developing high quality beginning teachers. These challenges include:

- That faculty staff presume that PSTs come to their study with a commitment to engage with the teaching and learning offered. That commitment may mean the students need to expand their learning beyond the required content of the units. The demonstration of commitment and evidence of depth of engagement are further complicated in online delivery modes.
- The pedagogic challenge of how best to ignite PSTs’ passion for literacy learning through online delivery modes, particularly in units that have enrolments of 250+ students, and especially when this is not one of the stated learning outcomes for any of the literacy units.
- PSTs’ expectations about their current and future literacy knowledge and skills and their personal and professional responsibilities in the development and maintenance of that knowledge. This includes a faculty expectation that students will work on their personal literacy knowledge and skill.

Thus while the ‘picture’ emerging from this initial set of data is incomplete, it highlights some of the inherent and predictable issues with online learning environments. The challenge of developing trusting relationships that engender learning and motivate beyond required tasks dominates. Establishing a strong, research-based, clearly articulated online pedagogy of teaching, at a whole-of-faculty (or university) level seems to be absent in many of the initial teacher education landscapes. The presumptions from staff and students about teaching and learning expectations, commitment to study and quality teaching representations and the depth of engagement in learning further complicate the situation. The implications are multifarious, but focus around skills, expectations and assumptions for staff and for students in the teaching and learning in online environments. Further research in this area will continue.

**Conclusion**

This study has highlighted some of the challenges for motivating and inspiring students who are learning online environments to engage with ensuring high levels of personal literacy skill. Presented with a document that outlined for them a range of literacy skills and knowledge that they will need to be highly effective teachers of literacy in the Primary school environment, these students indicated a range of types of response (positive, negative and natural). There was also an indication that they were likely to act to further upskill themselves. While ‘intention’ is not assumed to be ‘actuality’, and the ‘skewed’ nature of the participant sample is acknowledged, further research will seek to determine the veracity of these initial findings. The paper though asserts that there are complex assumptions that underpin the delivery of online courses from the perspective of faculty staff and from the position of student assumptions. The

**References:**

Appendix 1: Document

School of Education – Southern Cross University
Literacy Knowledge

This list presents information about presumed literacy knowledge and skills that you will need in order to both be a quality teacher and to adequately manage the study of your SCU English units.

While most of this knowledge would have been learned in your thirteen years of schooling, this list is presented to you as a prompt for you to re-evaluate your personal literacy skills and knowledge. Hence, any areas that are listed below, about which you are uncertain, can be reviewed and relearned. Detailed information about these skills and knowledge is not directly taught in and through the English units EDU20007/00402 (session 1) or EDU10513/30004 (session 2).

The resources noted at the end of this list provide a starting point for you in this endeavour. The NSW K-6 English Syllabus Glossary: [http://syllabus.bos.nsw.edu.au/english/english-k10/glossary/](http://syllabus.bos.nsw.edu.au/english/english-k10/glossary/) is also highly recommended as a resource for you.

**Phonemic Awareness and Phonics:**
- Consonants and vowels
- Long and short vowels and consonant
- Syllables: kinds/types and syllabification
- Phonemes and graphemes
Onset and rime
- Blending, segmenting and manipulating sounds
- Beginning, medial and final sounds
- Digraphs, blends, diphthongs, trigraphs

**Spelling and Word Study (etymology):**
- Spelling rules – rules for forming words; accent rules
- Sight words
- Compound words and portmanteau words
- Prefix and suffix
- Homophones and homonyms
- Latin and Greek roots / history of English language
- Antonyms and synonyms
- Simile and metaphor, euphemisms
- Clichés and tautology
- Anagrams and acronyms
- Onomatopoeia and oxymorons
- Spoonerisms and puns
- Mnemonics
- Tongue twisters and eponyms
- Diacritical marks

** Grammar:**
- Parts of speech and parsing – nouns, pronouns, adjectives, verbs, adverbs, prepositions, articles, connectives, interjections (and their various types e.g. definite and indefinite articles; action verbs, auxiliary verbs, multi-verb groups; qualifier, describer and quantifier nouns)
- Phrases and clauses (and types of clauses, such as principal and subordinate clauses) and
- Sentence structure – split infinitives; complex sentences; flow of ideas; use of parts of speech; paragraph use; fragmented sentences
- Tenses – past, present and future
- Use of plurals
- Accurate use of punctuation: when/how to use – capitals, full stops, colons, semicolons, commas, and prepositions; apostrophe of possession and contraction; speech and quotation marks; question and exclamation marks; brackets; dashes and ellipses

**Handwriting:**
- Various styles of handwriting including eg NSW Font
- Pencil grip and appropriate sitting position for writing
- Slope of writing styles and linking letters (cursive writing) including variations for left-handedness.
**Academic Writing skills:** Knowing how writing for academic/scholarly purposes is different to other types of writing, including accurate use of referencing style/s (SCU School of Education uses the APA 6th edition style of referencing).

**Literacy text types and genres:** There are a range of genres and types of texts, for example: informative, imaginative and persuasive.

**Resources:**


The Adventure of English (Melvin Bragg): [https://en.wikipedia.org/wiki/The_Adventure_of_English](https://en.wikipedia.org/wiki/The_Adventure_of_English)