



## Predictive validity of the post-enrolment English language assessment tool for commencing undergraduate nursing students



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### SUMMARY

*Background:* Nursing students with English as an additional language (EAL) may underperform academically. The post-enrolment English language assessment (PELA) is used in literacy support, but its predictive validity in identifying those at risk of underperformance remains unknown.

*Objectives:* To validate a PELA, as a predictor of academic performance.

*Design:* Prospective survey design.

*Setting:* The study was conducted at a university located in culturally and linguistically diverse areas of western Sydney, Australia.

*Participants:* Commencing undergraduate nursing students who were Australian-born ( $n = 1323$ , 49.6%) and born outside of Australia ( $n = 1346$ , 50.4%) were recruited for this study. The 2669 (67% of 3957) participants provided consent and completed a first year nursing unit that focussed on developing literacy skills.

*Method:* Between 2010 and 2013, commencing students completed the PELA and English language acculturation scale (ELAS), a previously validated instrument. The grading levels of the PELA tool were: Level 1 (proficient), Level 2 (borderline), and Level 3 (poor, and requiring additional support).

*Results:* Participants with a PELA Level 2 or 3 were more likely to be: a) non-Australian-born ( $\chi^2$ : 520.6,  $df$ : 2,  $p < 0.001$ ); b) spoke a language other than English at home ( $\chi^2$ : 490.2,  $df$ : 2,  $p < 0.001$ ); and c) an international student ( $\chi^2$ : 225.6,  $df$ : 2,  $p < 0.001$ ). There was an inverse relationship between participants' ELAS scores and PELA levels ( $r = -0.52$ ,  $p < 0.001$ ), and those graded as 'proficient' with a PELA Level 1 were more likely to obtain higher scores in their: i) unit essay assessment ( $\chi^2$ : 40.2,  $df$ : 2,  $p < 0.001$ ); ii) final unit mark ( $\chi^2$ : 218.6,  $df$ : 2,  $p < 0.001$ ), and attain a higher GPA ( $\chi^2$ : 100.8,  $df$ : 2,  $p < 0.001$ ).

*Conclusion:* The PELA is a useful screening tool in identifying commencing nursing students who are at risk of academic underachievement.

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### Introduction

Growth in migration and in the internationalisation of education has contributed significantly to the cultural and linguistic diversity of Australian society, and this is reflected in the demographic profile of students enrolled in undergraduate nursing programmes (Salamonson et al., 2012). Countries, such as the United States, have also reported on the impacts of internationalisation and the resulting increase in the number of nursing students who have English as a second language (ESL) (American Association of Colleges of Nursing, 2012). Australian universities recruit international and domestic students from a wide range of educational and cultural backgrounds into programmes such as nursing (Kilstoff and Baker, 2006; Wang et al., 2008). Despite meeting the minimum requirements for university admission, English as an

additional language (EAL) students, in particular, can experience slower rates of progression (Salamonson et al., 2011), this may be related to inadequate language and literacy skills to meet the linguistic demands of their courses (Hillege et al., 2014; Murray, 2011, 2012). Having adequate English language and literacy skills for nursing studies not only can determine the progress and success of these EAL students in a nursing programme but also may impact on future nursing registration and employment (Baik and Greig, 2009; Birrell, 2006; Choi, 2005; Edwards et al., 2007; Glew, 2013; Guhde, 2003; Rogan et al., 2006; San Miguel et al., 2006; Wang et al., 2008). For instance, by course completion these students may experience difficulties in demonstrating the English language skills for competent and safe practice required to register as a nurse (Glew, 2013; Nursing and Midwifery Board of Australia, 2011). The Good Practice Principles for English language proficiency for international students highlighted the responsibility of universities for ensuring the development of English language proficiency (Department of Employment Education and Workplace Relations, 2009). More recently the Tertiary Education Quality and Standards Agency (TEQSA) has reinforced the application of these principles and also contends

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that students, who are underprepared for their university studies due to a lack of essential English language and academic literacy skills, must be identified early in their studies and supported to develop these skills for higher education studies (Tertiary Education Quality and Standards Agency, 2013).

Academic underperformance compounds the need to meet English language and literacy requirements inherent in courses such as nursing, and contributes to increased student attrition (Salamonson et al., 2008, 2009, 2013). The growing recognition of the burden placed on universities, academics and student support programmes to meet the challenges of identifying and supporting students to develop language and literacy skills (Dunworth, 2009, 2010), has resulted in an increase in the use of language and literacy screening tools (Murray, 2010, 2011, 2013). Without timely and cost efficient identification at course commencement through the use of a post-enrolment English language assessment (PELA), undergraduate students who are at potential risk of underperformance due to poor language and literacy skills are likely to achieve low academic outcomes (Murray, 2011). Although the focus of this study is relevant to all undergraduate programmes, this paper reports on an initiative to implement and validate a cost efficient and brief PELA writing task used for commencing undergraduate nursing students at a large multi-campus school of nursing situated in culturally diverse areas of Western Sydney.

### Background

Various forms of post-enrolment student assessment have been developed to identify the English language and literacy needs of students as a means of screening and supporting students following programme enrolment (Murray, 2013), resulting in several post-enrolment diagnostic assessments being implemented by universities in Australia and New Zealand. For instance, the Diagnostic English Language Assessment (DELA), the Diagnostic English Language Needs Assessment (DELNA), a modified form of DELA (Knoch and Elder, 2010), and the procedure for Measuring the Academic Skills of University Students (MASUS). These assess aspects of language and literacy in reading, writing and listening (Ransom, 2009), with some divided into screening and diagnosis phases. The DELNA screening, for example, involves a computer-based vocabulary and speed reading test. Students are categorised into three groups: 'Good', those who are proficient to meet university language demand; 'Satisfactory', those who have adequate language skill but could benefit from workshops; and 'Diagnosis Required', those who are advised to undertake the diagnostic phase (Read and Randow, 2013). The diagnostic phase is a paper-based assessment of listening, reading and writing skills and depending on performance students are advised to undertake support classes (Knoch, 2009; Read, 2008). Analysis of the DELNA scores and student GPA achieved by the end of first year revealed that students who performed well in the DELNA on commencement generally achieved a higher GPA (Elder and Randow, 2008).

Similar to the DELA and DELNA, the MASUS procedure requires students to write a short essay on a discipline related topic from information provided in visual, textual and numerical form. The essay is assessed on structure, grammatical correctness and presentation (Bonanno and Jones, 2007). In validating the MASUS, it was found that performance in the assessment could predict student achievement and course progression (Bonanno and Jones, 2007).

Although international students are often the cohort thought to experience the most substantial academic difficulties, local students, particularly those from EAL backgrounds and students entering university via the range of diverse university pathways are also likely to be underprepared to successfully engage in academic studies (Murray, 2013). This has raised questions about the use of a PELA for all commencing students. Arguments against screening students, especially large cohorts, include the substantial costs, time and resource involved in this

process (Murray, 2013). Implementing assessments such as the DELA, DELNA and MASUS can require substantial funding and university resources. Moreover, if screening assessments are not mandatory, there can be issues with compliance (Elder and Randow, 2008). Consequently, those students at risk of underachievement and in need of support may not be identified at course commencement. Additionally, there is a risk of stigmatisation for those who are screened, if screening is not administered for all students (Murray, 2010).

The benefit of screening all commencing students using a PELA is that those in need of support can be identified at an early stage (Murray, 2011). This support may enhance the academic performance of students, increase student retention, and result in improved service and achievement of university quality assurance goals (Dunworth, 2009). However, a PELA needs to be an effective and reliable predictor of student performance as well as being efficient in terms of implementation costs (Murray, 2010, 2011, 2013).

In order to implement a cost efficient PELA for screening large cohorts of commencing students, Barthel (2009, November) was instrumental in developing a brief PELA writing task based on recognised writing skill criteria. The criteria were used to identify features of written expression and language structures that can indicate written language proficiency and the literacy skills of the writer (Hillege et al., 2014; Russell et al., 2009; Swan and Smith, 2001). This PELA was a 20 minute assessment focused on writing skills according to three levels of competency. These levels were based on a language literacy criterion with Level 1 (proficient), Level 2 (borderline), and Level 3 (poor, and requiring additional support). Students with a Level 3 were identified as being at risk, and not likely to have adequate writing skills for university studies. Students with a Level 2 were identified as requiring some assistance with language and literacy in order to succeed in their studies. Students with a Level 1 were identified as being competent in writing; however, it was acknowledged that they may also benefit from support in developing effective academic writing skills. Despite the implementation of this PELA tool, there has remained a dearth of literature on its validation as an assessment tool (Barthel, 2009, November; Hillege et al., 2014).

In 2010, the inexpensive brief PELA writing task was adopted with permission for screening commencing nursing students at a School of Nursing and Midwifery in western Sydney in order to identify those with poor writing skills who most required additional support (Barthel, 2009, November; Hillege et al., 2014). The PELA writing task was used along with an English Language Acculturation Scale (ELAS) (Salamonson et al., 2008, 2013). The ELAS is a tool to identify the language usage of commencing nursing students, and it includes collection of demographic information. The ELAS allows for identification of first and second language usage in speaking, listening and reading in English and languages other than English, and takes into account demographic information such as place of birth. Validation of the ELAS as a screening tool was achieved through correlational studies of students' survey responses and their GPA in 2010, 2011 and 2013 (Salamonson et al., 2013).

### The Study

#### Aim

The aim of this paper was to validate a PELA writing task as a brief cost efficient screening instrument embedded into a programme for commencing undergraduate nursing students from diverse cultural and linguistic backgrounds in a large multi-campus school of nursing programme in Australia. This involved examination of the relationship between students' performance in the PELA writing task and their levels of English language usage using the English language acculturation scale (ELAS), a previously validated instrument (Salamonson et al., 2013).

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