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Assessing Curriculum Planning for Humanities Inquiry: The Challenges and Opportunities of Poster Presentation

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Abstract: Authentic assessment has been promoted in teacher education as a means of addressing the challenge that pre-service teachers often face in translating theory into practice. In this article, we outline one approach to authentic assessment that utilises a poster format to present a humanities inquiry sequence. Drawing on a practice-based research project into inquiry learning, we explore the challenges and opportunities of this mode of assessment in meeting our curriculum aims. While we acknowledge limitations in this method, we conclude that posters provide a succinct and engaging means of organising, disseminating and assessing inquiry planning in humanities.

Introduction:

In teacher education in recent years, alternative assessment methods have been developed with the aim of going beyond verifying knowledge or understanding of content, to promote understanding of the effects of context and learner variability on teaching and learning (Darling-Hammond & Snyder, 2000). In recognition of the increasing diversity of students and teaching contexts, Darling-Hammond and Snyder argue that “teachers need to become ever more skillful in their ability to evaluate teaching situations and develop teaching responses that can be effective under different circumstances” (p. 523). This article examines how an authentic assessment task is used to support teacher learning for these new challenges of practice. Following Darling-Hammond and Snyder, we describe authentic assessment “as opportunities for developing and examining teachers' thinking and actions in situations that are experience based and problem oriented and that include or simulate actual acts of teaching...includ[ing] plans for and reflections on teaching and learning” (p. 524). Rather than relying on recall or recognition of predetermined answers, authentic assessment requires pre-service teachers to apply knowledge and skills in ‘real-world’ learning tasks (Herrington & Kervin, 2007; Maina, 2004; Mueller, 2008). Informed by research, they make choices to develop their unique response to the task, while also satisfying the learning outcomes and assessment criteria (Rule, 2006; Maina, 2004). In this article, we explore the use of a poster presentation of a humanities inquiry unit as an authentic assessment of the development of pre-service teachers’ capacity for effective planning for a chosen context (place) and group of learners. The poster was utilised not only as a means of assessing an authentic teaching and learning task but also as a model of an approach to assessment that they could use in their classroom.

While researchers, particularly in the scientific and medical fields have a long tradition of using the poster format in conference presentations (Hess, Tosney, & Liegel, 2009), the use of poster presentation for assessment in higher education is a more recent

phenomenon but a growing trend (Bracher, Cantrell, & Wilkie, 1998; Conyers, 2003; Hess et al., 2009; O'Neill & Jennings, 2012). In education, nursing appears to be leading the way, using the poster presentation as a way to showcase research as well as the achievement of learning outcomes (Conyers, 2003; Wharrad, Allcock, & Meal, 1995). Brownlie's (2007) content analysis of literature on studies of the poster format used for scientific research dissemination identified ten major themes. Education was one of these themes; however, closer inspection found that the articles grouped under education were located in the nursing or pharmacy fields, or focused on skills in poster formatting and/or the development of presentation skills. In humanities education, lecturers have been less inclined to utilise the poster format for assessment and this form of assessment is still regarded as novel with few exemplars available (McNamara, Larkin, & Beatson, 2010). Nevertheless, McNamara et al. conclude that posters can provide an "effective and authentic approach to assessing learning outcomes" (2010, p. 6) and, in the next section, we examine some of the possibilities and limitations of using poster presentations for the purpose of assessment. This is followed by a summary of the characteristics of an effective poster format for the dissemination of information that have been identified in the literature. We then explain the context of our research and describe our experience of using the poster presentation in a humanities unit in a Bachelor of Education (Primary) course. Here, we explore the benefits and challenges of utilising a poster as a method of authentic assessment as well as a way to showcase and share pre-service teachers' final product, that is, the justification and development of a sequence of contextualised humanity inquiry lessons.

Using posters to Showcase Learning – Benefits and Limitations

Posters can serve as attractive, visually rich summaries of individual student's or groups of students' work and, at the same time, students learn transferrable skills that will assist in the dissemination of their work (Beal, 1986; Koshy, 2011). As a communication tool, a well-designed poster has several advantages compared to a detailed written document. The viewer can quickly see what knowledge and understanding is being displayed. The visual elements can serve as prompts to promote engagement and can facilitate discussion, "the seeking and giving of clarification and the development of understanding" (El-Sakran & Prescott, 2015, p. 102). The creator of the poster, having utilised an editing process, will have deliberately refined and filtered the information displayed. This, in turn, can enhance understanding and recall. When viewers ask questions, the deep engagement and connection necessary for this refinement assists the author's capacity to elaborate on the abridged version.

El-Sakran and Prescott (2015) point out the advantages of poster presentations over slide-ware presentations such as PowerPoint. They suggest that posters promote engagement with the work in different ways to slide-ware presentations. Posters are generally viewed individually or in small groups and thus encourage interaction and the viewers are able to seek immediate clarification. In a PowerPoint presentation, rather than spontaneous questioning, the viewer is generally required to wait until the end of the presentation to ask questions (El-Sakran & Prescott, 2015). El-Sakran and Prescott also note that slide presentations "tend to be language reductive; students often simply repeat what is on the screen" (p. 101). While there is no guarantee a presenter will not read from a poster, the informality of small group engagement in a typical poster presentation context makes this less likely.

The task of creating a poster requires the integration of theoretical knowledge and practical representation skills. Not only is the content on show but the creative display of the content is often crucial to the success of a poster. As Zielinska notes, researchers do not

always have skills in the visual presentation of posters: “Visual and graphic design is a specialty unto itself, and one that researchers rarely study” (2011, para. 2). There are many guides on how to develop a visually pleasing poster and, in the next section, we provide a summary of the common elements referred to in the literature.

Another key component in producing a successful poster is the refinement of research to display the most important information. The limited space requires students to deeply engage with the content as they make judgments about essential information. The amount of text can be further reduced when information is displayed visually through images and/or diagrams. The use of headings, images, diagrams, and a condensed script invite the viewer to explore the content where pages of text would not. When high quality presentation is achieved, a poster as an assessment task has the added benefit of being engaging and interesting to mark. Further to this, the succinctness of a poster presentation has, from a marker’s perspective, the potential advantage of being “faster and more objective than grading papers” (Davis, 2000, p. 5).

An additional benefit in the use of posters for assessment in higher education is the production of an artefact that might be used as evidence in an employment application or interview. Showcasing learning in a visual way is particularly relevant to graduate teachers who are seeking employment in education settings. Such artefacts can be used as evidence to support the achievement of professional standards (see examples below). Posters can also display competencies in information and communication technology (ICT), transferable skills that are often attractive to employers (Conyers, 2003). Furthermore, they have the advantage of being eye-catching and can provide visual prompts in a potentially stressful employment interview.

A major shortcoming of the poster format identified in the literature is the extra preparation time required of students (Conyers, 2003). In addition to completing the required research, the student may need to learn a new software program, create attractive visuals, and edit and format the poster (Conyers, 2003). However, this limitation may also serve as a catalyst for learning. The constraint of limited space requires students to synthesise information, to edit their work to essential points, promoting critical and creative thinking on the part of students (Chabeli, 2002; Davis, 2000; Tanner, 2012). While purpose-designed software is sometimes recommended for a more sophisticated product, posters can also be created using a simple PowerPoint platform. An advantage of PowerPoint is its accessibility and familiarity to students and therefore less time is required to learn how to use new software.

Another acknowledged challenge of using the poster format in assessment is the difficulties associated with assessors’ subjective evaluation of the visual aspects of the presentation and/or the equitable marking of vastly different products (Macquarie University, n.d.). Biggs (2003) argues that to ensure that assessment is consistent, posters should be assessed against common criteria. In best practice, it is argued, criterion-based assessment should be based on the principles of validity, reliability and transparency (Biggs, 2003; McNamara, Beatson, & Larkin, 2010; Summers, 2005). Further to this, Smith, Fuller and Dunstan (2004) advocate the development of a well-designed rubric that clearly outlines the criteria to enable the comparison of different products and promote consistent judgments. A rubric not only includes the criteria detailing what is going to be assessed, but also matches descriptions of the levels of performance for each grade, and has the aim of providing information to promote learning as well as guide assessment. Fuller (2000) argues that the criteria for poster assessment needs to highlight not just content knowledge but also processes and skills that are expected to be demonstrated such as, locating and selecting evidence, organising and integrating information, working in effective teams, using evidence to reach a conclusion, as well as presenting and communicating information. Other studies have

grouped the areas that should be addressed more broadly into; content, research and aesthetic components (Conyers, 2003; Levine-Rasky, 2009; Stewart, 2008). McNamara et al. suggests that “[t]he particular criteria adopted will depend on the task description and topic and purpose of the poster assessment” (2010, p. 4). Regardless of the emphases, a detailed and well-written criteria rubric will clarify for the students what should be included in the poster (Stewart, 2008). It also makes explicit the alignment between the learning outcomes, the assessment piece and the marks.

An additional consideration is the time required for academic staff to plan and construct the assignment task and associated rubric (Conyers, 2003). This may be greater than in other forms of assessment. However, it is argued that the decreased word count of the poster format and the development of explicit criteria, will reduce the workload required for correction and thus counteract the initial expenditure of time (Conyers, 2003; Hess et al., 2009; Macquarie University, n.d.).

Given that the poster presentation is becoming more popular as an assessment tool (and also relevant to the school context), mastering the challenges of the poster format is a desirable, transferable, and relevant skill for pre-service teachers. In the next section, we describe aspects of poster format that have been highlighted in the literature as important in terms of presentation and impact.

Poster Format

There are many websites and articles explaining the essential characteristics of the poster to maximize impact (see, for example, Burns & Grove, 2009; Conyers, 2003; Erren & Bourne, 2007; Hess et al., 2009; Newbrey & Blatzore, 2006). The following list is a summary of the common elements referred to in the literature as being necessary for the production of an attractive, easy-to-read academic poster:

- Brief informative title, indicating what the poster is about (large font size);
- Content should have a clear message and be selective (clarity and precision of expression, and economy of words);
- Layout - consistent design elements, balance of colour/contrast/white space;
- Text that is easy to read - usually a sans-serif font, 24 point minimum size and limited number of font styles and colours;
- Flow of information (natural eye movement) along lines, from larger to smaller, or down columns, and in a logical clear sequence (with consideration to using arrows or numbers as guides);
- Readability and organisation of text into blocks of text/text boxes, sections, headings, columns;
- Visual and creative interest (posters can express personality) - graphics, high quality images, diagrams;
- Error free, well-written, grammatically correct text, edited to provide key information; and
- Avoidance of jargon, abbreviations and acronyms.
(Burns & Grove, 2009; Conyers, 2003; Erren & Bourne, 2007; Hess et al., 2009; Newbrey & Blatzore, 2006)

Despite the many guides available, not all posters are well presented, and the literature on the use of the poster format for research dissemination in conferences is especially critical of poster design. For example, Hess et al. point out that many posters are difficult to read, poorly organised, encumbered with too much text and “lacking in effectual

visual displays of data” (2009, p. 356). They suggest thinking of a poster “as an illustrated abstract – a highly condensed version of a research paper constructed primarily of visual displays of data with just enough supporting text to provide context, interpretation, and conclusions” (Hess et al., 2009, p. 357). Jackson and Sheldon (2000) view the poster as a storyboard and explain consideration needs to be given to how the ‘story’ will unfold.

While the above comments relate to conference presentations, it is apparent that clear guidelines and explicit criteria are important in the development of effective posters whatever the purpose. In the following, we outline the guidelines and criteria used in a humanities education core unit to assess, research and support pre-service teachers’ completion of a poster presentation. This is preceded by a short description of the setting and framework for this research.

Context and Methodology

This research is part of a broader study, which sought to explore the efficacy of an inquiry-based approach for teaching humanities education in a higher education setting (Preston, Harvie & Wallace, 2015). Participants in this study were fourth year Bachelor of Education (Primary) students who were completing the second of two core humanities units as part of their degree. Participants completed two surveys (pre and post completion of the unit) and contributed their assessment tasks as part of this study. The three researchers designed the unit of work and taught in the humanities unit. Our overarching aim was to study the effectiveness of a place-based inquiry simulation in terms of strengthening pre-service teachers’ conceptions of inquiry and improving the quality of inquiry planning. In this paper, we examine the use and effectiveness of a poster presentation both as a method of assessing pre-service teachers’ understanding of inquiry planning for a particular context as well as a means of showcasing and sharing each group’s understandings of, and resources for, inquiry planning.

The poster presentation was one of two assessments for the humanities education unit. It had a weighting of 40% of the total mark and was completed after a place-based inquiry immersion conducted in the first five weeks of tutorials. Through the modelling of inquiry during tutorials, pre-service teachers developed an understanding of inquiry pedagogy and curriculum planning as well as humanities discipline skills and knowledge (Preston, et al., 2015). The assessment task required pre-service teachers to translate these experiences into a context-specific inquiry unit plan, displayed as a poster. The structure of the inquiry plan was based on Gilbert’s three-stage inquiry model (2014, pp. 75-77) and involved designing a ten week place-based inquiry suitable for upper primary students using a planning template (Moss & Harvie, 2015b, pp. 271-273). Students chose a partner and developed a unit of work which foregrounded humanities learning through the study of ‘place’. Place, for pre-service teachers, generally denoted a locale, suburb, region, area or town that was relevant to them. This assessment aimed to provide data on pre-service teachers’ understanding of inquiry planning along with evidence of their learning related to humanities discipline knowledge and skills, curriculum knowledge, and relevant resources and learning activities for the year 5 and 6 level. Because the poster construction was a paired task, we only refer to the posters for which both partners had given permission for use in this research. Student work was de-identified and both the poster and assessors’ comments were accessed after assessment had been completed.

Ten posters that met the above criteria were analysed using content analysis methodology (Cohen, Manion & Morrison, 2007) with a focus on three main themes. These included an evaluation of whether the poster enabled: 1) visual clarity, engagement and streamlined (but useful) information for the viewers; 2) clear-cut differentiation of pre-

service teacher curriculum planning skills for assessment purposes; and 3) an effective method of sharing and showcasing understandings of, and resources for, contextualised inquiry planning amongst the pre-service teacher cohort (and potentially to the broader education community). These three themes directed the analysis and the researchers' assessments of these criteria were supplemented by tutors' (de-identified) comments submitted on-line for each pair of students as well as their own experience of teaching and assessing the posters.

Before discussing the results of this analysis, we elaborate in the next section, the guidelines and requirements of the inquiry unit plan and poster presentation. This provides a background to the assessment task and the analysis that follows.

Guiding the Inquiry Plan and Poster Presentation

The unit plan poster assessment task was developed with three purposes in mind. First, we wanted pre-service teachers to be able to demonstrate, in the development and presentation of their own contextualised inquiry units, the knowledge and skills of inquiry pedagogy to which they had been introduced in tutorials. "Through both modeling inquiry pedagogies and immersing pre-service teachers in an inquiry, we hoped that they would translate their experiences into carefully designed and scaffolded inquiry units" (Preston et al., 2015, p. 73) Second, we sought a method of assessment that was less time consuming and more interesting to mark. And, third we wanted to provide pre-service teachers with a resource that showcased their unit planning capabilities in a visually interesting way. Given that the pre-service teachers were in fourth year and on the verge of seeking employment, we believed this assessment task would be a useful tool to present evidence of professional graduate standards in a portfolio or as a visual artefact for an employment interview. Examples of relevant standards include: 2.2 Organise content into an effective learning and teaching sequence; 2.3 Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans; and 3.2 Plan lesson sequences using knowledge of student learning, content and effective teaching strategies (AITSL, 2017).

To support the pre-service teachers in this assessment task, we developed an inquiry-planning template to guide them in their preparation of a unit plan (Moss & Harvie, 2015). The planner emphasised the main sections to be included in the poster and was designed to assist in content selection and sequencing. It included the following main areas:

- i) The inquiry question - the overarching question that would direct children's research;
- ii) The teaching proposal - a rationale which draws upon theoretical literature to justify relevant (inquiry) pedagogies and content, as well as skills and processes used in relation to a particular group of children;
- iii) The big ideas - the essential questions or concepts that are embedded in the inquiry;
- iv) The learning intentions (or understandings and concepts) and the key skills to be achieved through the unit;
- v) The connection to relevant humanities curriculum and consideration of the cross curriculum priorities and general capabilities from the Australian Curriculum;
- vi) A ten week inquiry scope and sequence developed around three key stages from Gilbert's (2014) inquiry model (elaborated below); and
- vii) The inclusion of a field trip and relevant cultural institution to enhance learning. (The field trip required the students to visit their 'place', take at least four photographs of the learning sites and explain the learning activities).

To assist pre-service teachers structure their scope and sequence plan, we drew on Gilbert's (2014, pp. 75-77) three stages of inquiry summarised below:

1. Establishing what we want to find out: Posing questions and planning inquiry
2. Finding out: Collecting and analysing evidence
3. Deciding what to do with what we've found out: Concluding, reflecting and responding to the inquiry

Through these three stages of inquiry planning, pre-service teachers were expected to build on the information provided in the first part of the template to ensure that the 'big ideas', understandings, skills, assessment tasks and the standards from the relevant humanities curriculum could be achieved.

The template worked as a planning document and, once the unit of work was developed, it was then transposed to poster format. In contrast to the traditional one page science conference poster, the presentation of the posters was mandated to include two A3 pages. This was for pragmatic reasons in order to minimise printing costs for the pre-service teachers and for the ease of transportation and display in an A3 folder. It also ensured that pre-service teachers presented their information succinctly and thought carefully about the necessary content that should (or should not) be included. It was recommended that the first page include the information that informed the plan such as; the inquiry question, teaching proposal, learning intentions, skills, and so forth. The second page then focused on the ten week scope and sequence outline which included a weekly outline of learning activities, resources, fieldwork activities and curriculum links. Transposing information from the planning document to the poster usually required careful editing to reduce the word count, formatting to improve readability and the addition of images to enhance the visual display and to contextualise the plan according to the place under study.

We also produced a study guide that elaborated the expectations in relation to the completion of the template plan. For example, it was explained that the teaching proposal (500-700 words) would draw on relevant professional readings to support their justification of the inquiry topic, content and pedagogy. An interdisciplinary focus was mandated to include relevant humanities curriculum areas such as History, Geography, Economics and Business, and/or Civics and Citizenship. It was suggested that, where possible, resources that were planned to enhance student learning or to inform teacher knowledge were included as images as well as listed in a bibliography.

The poster and planning document were submitted on-line and the poster was printed as a hard copy to present at the final tutorial. Our motivation for the final presentation of posters was to foster a collegial environment in which the pre-service teachers could quickly share each other's work and deepen their knowledge and understanding of inquiry planning through professional conversations. The following example of two pre-service teachers' completed poster demonstrates a typical format although the standard of presentation is higher than most in the sample (see Fig. 1 & 2).

Corio Bay – formed by Industry: our future, your direction!

Teaching Proposal:
 This inquiry based lesson sequence has a strong focus on the formation of Corio Bay and the Geelong industrial developments that established Geelong as the states capital for manufacturing (Geelong & District Historical Association, 2009). These lessons involve exploration and investigation for students to discover fundamental aspects of their past and present, and how it has contributed towards shaping their future. As a part of this inquiry based learning, students will be going on an excursion to the Waterfront and Geelong’s historical buildings around the Bay. Which allows the students to explore the rich history that identifies significant people, events, period of time contributing to the successful developments on Corio Bay and the connection with the regions first people.

As teachers, it is critical that learning is made meaningful and relevant for students, providing them with opportunities to explore the past, relating it their own interests and abilities so they can appreciate and connect with their valuable and diverse communities and family identities (Gilbert & Hoepper, 2014). The Australian Curriculum (2014) emphasises the importance of the ‘traditions of our communities; learning about society past and present. Students are provided with opportunities to explore different perceptions of people, places, ideas and events. They develop an understanding...between the natural environment, human communities, and economies. They explore how people, ideas and events are connected over time and increasingly interconnected across local, national, regional and global contexts (ACARA, 2014)’. In these lessons the emphasis is for children to grasp knowledge and understanding, through inquiry learning, of where they live and how the key industries contributed to sustain our growth as a city, applying learning that enhances collaboration, creativity, critical thinking and problem solving skills.

This further enables students to actively participate in their community as successful learners and active and informed citizens as emphasised in the goals of The Melbourne Declaration on Education Goals for Young Australians (MCEETYA, 2008, p.8-9) learners ‘are creative, innovative and resourceful and are able to solve problems in ways that draw upon a range of learning areas and disciplines’ and students learn to ‘appreciate Australia’s social, cultural, linguistic and religious diversity, and have an understanding of Australia’s system of government, history and culture’. This lesson sequence contributes to the developmental outcomes towards meeting these goals. It is important that the students have recognition for what has happened in the past to appreciate the opportunities they have now and what they are capable of creating in the future.

As shown in our activities by comparing the industries, locally and globally, learning about how the industries were established and reasoning behind it and the factors, such as consumers, economic, social and political influence that contributes to the viability and sustainability of enterprise. Inspiring our students, for one of their final activities, to plan and create their own future sustainable industry on Corio Bay. These lessons enable the teachers to observe and measure the students learning progress through this inquiry based unit. The assessments are both physical and interactive, enhancing and supporting the individual learning experience and in collaboration with peers. As discussed by Gilbert (cited in Gilbert & Hoepper 2014, p.89) group work and collaboration engages learning and enriches students’ capabilities in negotiation and communication towards solving problems and decision making. However, for group work to be effective, teacher and students need to work together.

BIG ideas

- Understanding the foundations of industry from early settlement
- Establishment of the manufacturing industry, historical buildings and developments on Corio Bay
- People and professions who shaped our community past and for future generations

Assessment Evidence

- Presentations, postings on Edu blog, animations and timeline creations
- Book creation
- Brainstorming, group work and collaboration ideas
- Inquiry tasks involving research



Microsoft Research/AutoCollage 2010a – Triptych.com

Australian Curriculum:

This inquiry based lesson sequence is Humanities & Social Sciences Incorporating History, Geography & Economics & Business. Includes cross curricula priority areas Australia’s Engagement with Asia, Aboriginal & Torres Strait Islanders and Sustainability. Integrating literacy and ICT skill development (ACARA, 2014)

Learning Intentions

1. Enhancing understanding of Geelong’s traditional Land owners and the development of early settlement on Corio Bay.
2. Learning significant events, key people and timeline, contributing to Corio Bay waterfront and key industries.
3. Identify key buildings and identities involved in the formation of our city. Valuing the visual story behind images and artefacts.
4. Researching and recording information about the Bollard walk and key buildings to inform other students learning.
5. Displaying creativity and research skills.
6. Developing analytic and comparative skills from a geographical and economic perspective.
7. Students working collaboratively to plan, problem solve and create a sustainable industry that will be the future of Corio Bay and Geelong region for generations.
8. Recalling history and significant events that promotes knowledge and understanding as active and informed citizens in the development of communities.

Key skills.
 At the conclusion of this unit students will be able to:
Research: activities building on knowledge from past and present aspects of industry in our community
Critical thinking & Creativity: skills enhanced from opportunities to explore, experience and create
Analyse: Developments of industries and compare globally to identify and predict future sustainable business opportunities
Identify: Key people, events, periods of time, historical buildings and industries in development of Corio Bay
Collaborate: effectively with an open mind and appreciation of the ideas and opinions of peers
Construct text: using a variety of modes to present including visual, written, verbal or electronic presentation

Figure 1: Student poster example—page one, defining the inquiry

<p>Week 1 Learning Intention: Enhancing understanding of Geelong's traditional Land owners and the development of early settlement on Corio Bay. Activity: 'Brainstorming' class discussion gaining insight into Geelong's first people, settlement patterns, key landmarks and industries on Corio Bay. Resources: Smart Board and computers Assessment: Formative, prior knowledge & understanding. Australian Curriculum: (ACHHK093), (ACHHK094), (ACHHK097), Aboriginal & Torres Strait Islanders OI.2 OI.6</p>	<p>Week 2 Learning Intention: Learning significant events, key people and timeline, in the developments of Corio Bay, waterfront and key industries. Activity: Charting Corio Bay water front developments and Industry. Using the artefacts and images of Geelong's early history the students in groups (3) research and identify each, the significance and period of time. Create a class timeline and display. Resources: Artefacts and images. Timeline applications. iPads. Students Inquiry books to record some key information.  http://www.geelongaustralia.com.au/heritage/history/default.aspx Assessment: Student recording, notes and key dates. Visual display of timeline. Australian Curriculum: (ACHHS099), (ACHHS100), (ACHHS101), (ACELY1717)</p>	<p>Week 3 Learning Intention: Identify key buildings and identities involved in the formation of our city. Valuing the visual story behind images and artefacts. Activity: Class excursion – Historical buildings on Moorabool and Brougham Streets and the Waterfront Bollard Walk. Resources: Group worksheet, pens, camera, parent volunteers and 2 teachers. Australian Curriculum: (ACHHS104), (ACHHS100)</p>	<p>Week 4 Learning Intention: Researching and recording information about the Bollard walk and key buildings to inform other students learning. Activity: 'Sharing knowledge', each group's researches key points from their excursion observation records and create a presentation using Prezi or PowerPoint, sharing presentations with the class. Accessible on class computers for students' future reference (story creation). Resources: Students group worksheets, photos and computers. Australian Curriculum: (ACHHS101), (ACHHS102), (ACELY1717)</p>	<p>Week 5 Learning Intention: Displaying creativity and research skills. Activity: 'Story creation', Students starts creating their book (individual preference using electronic applications or handwritten & illustrated approach. Select 2 bollards of choice, research the history of what it represents and write about it. Looking at the buildings in Geelong – select one historical building, identify through research it's history and current purpose. Resources: Displayed timeline, informative presentations, Computers/iPad, photo's, stationary. Australian Curriculum: (ACHHS105), (ACELT1612), (ACELY1714), (ACELY1717)</p>
<p>Week 6 Learning Intention: Displaying creativity and research skills. Activity: 'Corio Bay industries research'. In groups, each group is allocated an industry to research and collate significant details, as indicated on research matrix. Develop an informative poster highlighting key findings, with illustrations encouraged. . Posters are uploaded to class topic Edu Blog. Resources: List of industries & location, research matrix sheet. Computers/iPads.</p>  <p>Australian Curriculum: (ACHHK093), (ACHHK094), (ACHHK097), (ACHHS101), (ACHHS102), (ACELY1717)</p>	<p>Week 7 Learning Intention: Developing analytic and comparative skills from a geographical and economic perspective. Activity: 'Comparative Study' – students (in groups) recall their industry. Select an Asian country from the list and research the same industry, responding to specific questions as well as recording information they believe informative and interesting. Record details responding to key points indicated. Resources: Computers & programs, poster from Industry lesson.  Assessment: Group presentation using Prezi Australian Curriculum: (ACHGK031), (ACHGK032), (ACHGK035), (ACHEK099), (ACHEK011), (ACHES014), (ACHES016), (ACELY1714), Australia's Engagement with Asia OI.2 OI.7</p>	<p>Week 8 Learning Intention: Students working collaboratively to plan, problem solve and create a sustainable industry that will be the future of Corio Bay and Geelong region for generations. Activity: Create Geelong and its future industry. In groups mind map business ideas, design an industry and explain what it is and the key aspects, recording the details. Resources: Computers, paper/pens, Mind maps resources  Assessment: Groups share their mind map with the class and create a 1-2 minute animation promoting their industry. Australian Curriculum: (ACHEK099), (ACHEK014), (ACHES016), (ACHES014), Sustainability OI.9</p>	<p>Week 9 Learning Intention: Recalling history and significant events that promotes knowledge and understanding as active and informed citizens in the development of communities. Activity: 'Creating your story'. Corio Bay historical industrial developments to Geelong and its future for generations to come. Students Stories are based on their learning from these lessons. Plan and create a Bollard representing the significance of their individual understanding of the past and their future. Resources: Stationary, paints, iPads, access to prior presentations and classroom displays timelines, artefacts and images. Australian Curriculum: (ACELY1714), (ACELY1717)</p>	<p>Week 10 Learning Intention: Recalling history and significant events that promotes knowledge and understanding as active and informed citizens in the development of communities. Activity: Complete story creations and share with the class. These books and presentations will be shared around the school during literacy week. Later used in student-led conferencing, presenting to their parents/guardian. Resources: Stationary, paints, computers/iPads, images, access to prior presentations and classroom displays timelines, artefacts and images. Assessment: Summative assessment, each students completed story, in their chosen format. Australian Curriculum: (ACELY1714), (ACELY1717), (ACHHS106)</p>

Figure 2: Student poster example— page two, scope and sequence ten week outline

Findings: The Challenges and Opportunities

In the following, we evaluate the use and effectiveness of the poster as an authentic assessment tool in relation to the following criteria: 1) visual clarity, engagement and streamlined (but useful) information for the viewers; 2) clear-cut differentiation of pre-service teacher curriculum planning skills for assessment purposes; and 3) an effective method of; encouraging collaboration (in pairs), and sharing and showcasing understandings of, and resources for, contextualised inquiry planning amongst the pre-service teacher cohort (and potentially to the broader education community through an employment application/interview context). The three criteria used for evaluation of posters for the purpose of this research study were based on the researchers' (who were also the unit designers) rationale for changing the unit plan assessment from a written (Word) document to poster format. While there are similarities, these criteria for evaluation are separate to the assessment criteria that tutors used to grade students' work. For example, tutors assessed students on their ability to apply Gilbert's three stage inquiry model. As researchers we were more interested in how well the poster format *differentiated* pre-service teachers' understanding of inquiry planning for a particular context (see criteria 2 above). In other words, did the post format more easily enable us to visually discriminate the level of planning skills?

In relation to the first criteria, the majority of the posters in the sample that we analysed were visually appealing but some lacked finesse or refinement. They were all colourfully presented and included images that helped to create a 'story' around a particular place. In the sample studied, the places chosen were either a city, town, locale or landmark and this was representative of the larger cohort. The effectiveness of the images in providing a 'storyboard' (Jackson & Sheldon, 2000) varied across the sample. Some used images successfully to create a historical timeline, which enabled a story of the place to visually unfold. Four of the posters incorporated a transparent or opaque image of the place as a background to the poster pages. This added to visual engagement but sometimes detracted from the readability of the poster, particularly when the background picture was bold. The size of the images used throughout the poster also influenced legibility and achieving the appropriate balance between size and quantity of images was a skill that was not always mastered. One method of enhancing visual clarity in the weekly scope and sequence plan was the addition of images of resources that could be used in the teaching and learning for each week, for example, images of storybooks, web tools, Apps, games, video clips, cultural institutions, and so forth. They were not only very effective in adding to the visual presence of the poster but also allowed the marker to see the range of resources at a glance. Another aspect that added to visual engagement was the inclusion of fieldwork photographs. One of the criteria for planning was the design of a fieldtrip and the inclusion in the planning document of at least four photographs that exhibited the potential learning activities/sites. When this was included in the poster, it worked well; the photographs personalised and contextualised the posters and the unit plan. It enhanced the visual aspect of the poster and contributed to the creation of a unique response to the assessment task.

In the posters that achieved the best results, it was clear that pre-service teachers had planned with sufficient time allocated to the development and refinement of the final product. This included allowing time to become proficient at manipulating the chosen software and locating and incorporating relevant images. Often pre-service teachers were required to learn new skills, for example, how to wrap text or link objects so they would not move around when additional images or text were added. The majority of the pre-service teachers in the research sample effectively managed the planning, refining and presentation tasks. However, anecdotal comments from pre-service teachers in tutorials suggested that some

underestimated the time required to conceptualise, plan and complete the poster presentation task, especially in relation to the design and formatting aspects of the presentation.

The final product also necessitated a synthesis and thorough editing of information; skills that the pre-service teachers sometimes reported in tutorial discussions as being challenging. As noted in other studies, students can experience difficulty editing the text to the bare minimum while attending to all the criteria (Forsyth, Wright, Scherb & Gaspar, 2010; Tanner & Chapman, 2012). The result is that posters are sometimes encumbered with too much text making them difficult to read (Hess et al., 2009). Successful editing requires careful selection, prioritization and organisation of information into the poster and involves higher order and creative thinking (Conyers, 2003). Pre-service teachers can find the creative style of poster presentation somewhat foreign as written reports and essays are more common forms of assessment in the course. In the future, as a way of improving the quality of editing, layout and visual aspects of the posters, we propose to include a session prior to the final presentation in which pre-service teachers have the opportunity to critique a variety of posters from previous years and evaluate their effectiveness (Conyers, 2003). Now that we have delivered this humanities unit, we have exemplars of the poster assessment that we can use to illustrate the possibilities and challenges of this format. This, we believe, will overcome many of the issues that pre-service teachers anecdotally reported.

We also acknowledged our responsibility in creating some of the editing difficulties for pre-service teachers. The guidelines recommended, and the criteria were based on, a 500-700 word teaching proposal when most poster guidelines advise 800 words for the entire poster (Purrington, n.d.). The example in Fig. 1 included a 555 word teaching proposal. The weekly scope and sequence plan (Fig. 2) were also sometimes text heavy. Replacing text with dot points for key ideas and using a visual alternatives were possible, for example, an image of a resource or an illustration of a learning task end product were strategies successfully employed by participants in the study.

This streamlining of the information was one of the main benefits for the assessors. The researchers agreed that, to varying degrees, the poster format helped to differentiate the level of curriculum planning skills demonstrated by pairs of pre-service teachers. Not only were there less words, the headings and visual images made it easier to locate the information relevant to a particular assessment criterion. Laying bare and exposing the structure of the scope and sequence enabled the assessors to more easily differentiate between the pre-service teachers who understood inquiry pedagogies and developed engaging, relevant learning tasks and those who did not. It was obvious when some pre-service teachers went beyond merely *covering* the humanities curriculum and considered scaffolding the children's learning through careful sequencing and building of learning. Researchers were not convinced, however, that differentiation was always clear-cut and sometimes, as assessors, they found it difficult to penalise pre-service teachers who included substantial detail and extensive examples of learning activities. Another important point from the assessors' perspective was the pre-service teachers' selection of different *places* on which to focus their inquiry units. This, together with the creative elements of the posters, made the evaluation of the posters a more interesting task than the usual repetitive and text-heavy assessments.

Differentiation could be further improved with the development of an assessment rubric and the refinement of some of the criteria. In the first iteration of this unit, assessment criteria related to the teaching proposal, organising ideas and understandings, links to curriculum, learning tasks (including fieldwork), sequence of inquiry, assessment, and poster presentation. These criteria were used to guide both the students and the assessors on what was important (Allen & Tanner, 2006). However, the lack of understanding of some aspects of the criteria indicated that the creation of a rubric with descriptions of what is expected at each grade level would enhance pre-service teachers' comprehension of the requirements. It

would also improve the validity, reliability and transparency of the marking process (Biggs, 2003; Smith et al., 2004).

It is also acknowledged that assessment criteria can have a limiting effect on what gets prioritised. For example, the number of marks that can be allocated to the visual clarity and presentation of a poster is limited as there are other essential content criteria that need to be addressed. For some pre-service teachers, this might mean that the presentation of the poster is not a priority. And those who do allocate significant time to the visual presentation could be justifiably frustrated that the marks are minimal. Something we have considered for the future is the integration of poster presentations into a student conference that is currently a component of the fourth year program. This might add value to the poster presentation, especially if awards are offered.

In terms of collaboration, the task encouraged pre-service teachers to work with their partner - to share ideas, retrieve information from different sources, compile evidence and carefully sequence and scaffold children's learning. It also demanded the negotiation of a place relevant to both students. Nearly all the posters that were examined demonstrated, through the uniformity of the format and continuity of text, that pairs of pre-service teachers completed the tasks in a cooperative and effective way. In collaborative partnerships, it was noted that partners edited each other's text and the development of learning experiences followed a logical sequence. However, there were a small number of posters that displayed inconsistencies in language or lack of synergy between learning experiences indicating that a more individual approach may have been adopted in the construction of this assessment task. In these cases, we surmised that the tasks were divided between the pairs rather than developed through collaboration.

Pre-service teachers presented their posters to the whole class in the tutorials and then received peer and tutor feedback. Researchers and other assessors reported that peer feedback tended to be surface level rather than a critical evaluation against the criteria. For example, even when posters were impeded by small, difficult to read text, this was often not pointed out. The difficulties of students providing honest, constructive feedback to peers is well reported in the literature (see, for example, Papinczak, Young, & Groves, 2007). Instead of the pairs of pre-service teachers presenting their poster to the whole class, having them walk around viewing and discussing each other's posters - more closely mimicking the conference poster presentation, where the exchange of questions and feedback is conducted in smaller groups - might encourage more critical evaluation, commentary and active participation (Miracle, 2008). The repetitive nature of this type of presentation might also facilitate the development of presentation skills (Bloch, 1999; Bottler et al., 1990) and extend the learning opportunities (Akister & Kim, 1998). Another strategy to assist in students in the future is to focus the peer feedback on just one criterion, for example, visual clarity of the poster, which would be more achievable within the limited presentation time. The inclusion of a descriptive rubric, as described above, would also assist pre-service teachers align comments to grades.

Although the poster task was designed primarily for learning and assessment purposes, the posters had audiences beyond this objective. Anecdotally, the posters were reported as being useful for graduate teachers in illustrating their planning and showcasing skills and understandings to potential employers in the education community. Designing tasks that graduate teachers can utilise in addressing professional standards is, we believe, an important outcome. Further to this, we believe that emphasising at the start of the unit, that the poster may provide evidence of achieving Australian Professional Standards for Graduate Teachers may reassure the pre-service teachers that the additional time required to perfect their posters is worthwhile. It is also hoped that this authentic assessment task will have useful applications for classroom teaching. Planning curriculum units is part of the 'real'

work of teachers and being able to display a scope and sequence plan in an easy-to-read, accessible format is a useful tool in a typically busy classroom setting. The poster presentation as a model for efficient and effective assessment may also help extend pre-service teachers' repertoire of assessment instruments that they can apply to the primary classroom.

Conclusion

The poster as a method of assessment was successful in developing, examining and showcasing pre-service teachers' teaching and learning plans. Most of the pre-service teachers in the study were able to produce well-designed posters to display the curriculum development underlying their inquiry unit. The poster format as a vehicle to illustrate curriculum planning had many benefits. The format dictated that the pre-service teachers cut through the 'waffle' laying bare the curriculum planning and the scope and sequence of learning tasks that structured their humanities place-based unit. The succinct form had clear benefits for the marker and relevance for the busy classroom teacher. The curriculum planning task also modeled a way of creating a humanities inquiry that could be adapted and contextualized to suit different locations and groups of students whilst addressing the required curriculum content. This ensured that all the posters were different and this, together with the visual format, added interest for the marker.

When completed to a high level, the posters also provided evidence of expertise in information and communication technology and a capacity for creativity. Formatting the poster and editing the text was a challenge for some pre-service teachers. In the future, the use of examples to illustrate the possibilities and challenges of the poster format should improve pre-service teachers' understanding of some of the pitfalls inherent in this format, as well as the possibilities of disseminating information in a clear, visually interesting way. We found that the poster assessment was a strategy that had the potential to add benefits beyond the evaluation of pre-service teacher learning outcomes; the pre-service teachers learnt many transferable skills and developed a unit of work that could showcase their professional learning in a format accessible to a broader audience.

The poster curriculum plan as a simulation of an actual act of teacher curriculum planning, was an authentic assessment task and assisted pre-service teachers in the translation of theory into practice. The extent to which these poster plans have 'real-world' application in a school setting is still uncertain and requires further research. It is our hope that pre-service teachers will see the value of using the scope and sequence poster as a workable model for humanities' planning. We also see the value of the poster as a model for classroom-based inquiry presentations and assessment. This model supports multi-literacies and accommodates the diverse approaches and outcomes inherent in student-led inquiry learning. While we acknowledge the need to modify and develop the assessment task, we are confident that such authentic assessment practices in teacher education have the potential to help shape teacher learning and thereby improve classroom practices.

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