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## Engaging students through assessment: The success and limitations of the ASPAL (Authentic Self and Peer Assessment for Learning) model

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# Engaging Students through Assessment: The Success and Limitations of the ASPAL (Authentic Self and Peer Assessment for Learning) Model.

## **Abstract**

In 2011 the authors created a model of self- and peer-assessment known as Authentic Self and Peer Assessment for Learning (ASPAL) in an attempt to better engage seemingly disengaged students in their undergraduate coursework. The model focuses on authentic assessment tasks and engages students by involving them in every step of the process from the creation of the criteria on which they will be marked, through to providing exemplars of work, pilot marking and providing peer feedback. This article examines the ASPAL process with regard to whether or not the students are better engaged in their studies as a result of taking part in this process.

Although the results are not definitive, the present study shows that the majority of students who undertook the process found it beneficial and were open to try it again. This article seeks to open a discussion as to the capacity for a specific model of self- and peer-assessment to better engage students in their learning and discern the reasons why students found the model engaging so as to better inform future applications of the model and how it can be applied to a wider audience.

## **Keywords**

Engagement, Assessment, Higher education, Authentic Learning

## Introduction

Universities are under increasing pressure to better meet the needs of their students and prepare them for the economic realities of the 21<sup>st</sup> century. Universities have been criticised for depersonalising education and not meeting the needs of their students (Tae 2009). The depersonalisation of learning is linked to the level of student engagement, which has been shown to be an indicator of student success in tertiary study (Brint, Cantwell & Hanneman 2008). Depersonalising learning and the consequent lack of engagement can be seen as illustrating a lack of dedication to student learning on the part of the educator, the student and the university itself. Improving the undergraduate academic experience is something that educators can influence through classroom interactions; therefore, the efforts of this study have been focussed on classroom practices of assessment. This article seeks to illustrate that major determinants of academic engagement are autonomy in students' learning and the authentic nature of the tasks assigned, so that students can readily identify the value of their learning beyond the classroom. According to Brint et al., "existing cultures of engagement may not be sufficient to meet the challenges of creativity and productivity in the 21<sup>st</sup> century" (2008, p. 398); the implementation of the ASPAL (Authentic Self and Peer Assessment for Learning) model of assessment presupposes that the application of authenticity in assessment and learning can meet the needs of the 21<sup>st</sup>-century graduate, and may help to challenge these "existing cultures".

Traditionally in higher education, Graff states, "our assumption has been that most students will not learn what we teach them, that given human nature this is to be expected, and that ultimately this is not our problem" (2009, p.160). Traditional forms of assessment focus on scientific principles that seek to be objective and are seen to be separate from learning and built on uniformity and fairness (Shepard 2000). Traditional tests, meaningless essays and research projects that do not have significance outside of the classroom reinforce surface learning and memorisation (Gardner 1997). Boud's extensive work on assessment has found that it drives student learning (Boud & Holmes 1981; Boud 1990, 2000; Boud & Falchikov 2006; Boud & Associates 2010). This article contends that by incorporating authentic assessment tasks and involving students in the process of assessment, in this case through ASPAL, we can better engage them in their coursework and better prepare them for the world outside the classroom.

As many universities are seeking to improve the student experience by revising their assessment practices (James, McInnis & Devlin 2002), this article presents findings from the implementation of a new model of assessment at the University of Notre Dame Australia, in Sydney. The model was developed to increase students' engagement through co-creating authentic assessment tasks that seek to encourage collaboration and critical thinking, improve judgement and allow learners to become active participants in the assessment process. The ASPAL process and the similar Authentic Assessment for Sustainable Learning model have been described in detail in previous papers (e.g. Kearney & Perkins 2011; Kearney 2012). The premise of the ASPAL process is that the task assigned to students before they undertake the process must be authentic in nature; that is, it must have a direct correlation or relevance to the students' professional world outside of the classroom. Authentic assessment tasks inevitably encourage learning that has applicability outside of the classroom, which makes the learning sustainable.

## **Literature Review**

### ***Engagement***

Engagement in formal education at any level is the one of the educator's most essential, yet complicated, tasks. There seems to be a consensus in the literature that engagement is multi-faceted and hard to define (Atweh, Bland, Carrington & Cavanaugh 2008; Fredricks, Blumenfeld & Paris 2004; Sheppard 2011). Engagement has been conceptualised in various ways by various authors. In their review of the literature on engagement, Fredricks and colleagues (2004) divided engagement into three categories: emotional, behavioural and cognitive. In contrast, Skinner, Kindermann and Furrer (2009) differentiate engagement from students' disaffection in an attempt to better understand what is meant by the term. This article strives to navigate and transcend these traditional debates by adopting an operational definition based on motivational theory (Deci & Ryan 1985), to focus on academic engagement. Therefore, for the purpose of this article, engagement is defined as the emotional and behavioural motivations of students to be actively involved in the academic experience.

Considerable attention has been directed for over 20 years toward the improvement of undergraduate experience in higher education (Association of American Colleges 1985; Chickering & Gamson 1987). However, in recent years many institutions have begun to shift their focus, acknowledging engagement as an integral aspect of the learning experience, rather than considering it to be a result of learning (Brint, Cantwell & Hanneman 2008; Rimer 2007). Although it is becoming commonplace for institutions to recognise the importance of engagement in higher education, it is equally as important to acknowledge that the lack of engagement currently being experienced is not unique in the current generation, nor is it explicitly caused by any one factor; rather, this is a struggle that has been ongoing in education at varying levels for many years. In reporting students' experiences at Harvard in the early 20<sup>th</sup> century, Horowitz (1987) says:

Undergraduates at Harvard condemned with a long list of negatives those students who tried to gain teachers' approval. They labelled such behaviour with the terms "bootlick," "coax," "fish," or "baum".... It was sticking your neck out if you spoke up in class and answered a professor's question to the group as a whole. It was likewise regarded as bad form to do reading for the course above and beyond the assignment and to let that be known (p.35, quoted in Stake 1998, p.399).

The idea of the importance of engaging students and the seriousness with which it has received attention and focus in recent years can be seen by the growing number of universities participating in the National Survey of Student Engagement (NSSE) and the efforts at many of the United States' leading research universities to refocus their efforts on teaching, rather than simply research (Rimer 2007).

The National Survey of Student Engagement (NSSE), the primary instrument used in the United States to measure student engagement at the tertiary level, encompasses five dimensions: (1) active/collaborative learning; (2) student-faculty contact; (3) level of academic challenge; (4) enriching educational experiences; and (5) supportive campus environment. While the NSSE and

its predecessor, the College Student Experiences Questionnaire, have been the predominant instruments to measure student engagement, the five dimensions that the NSSE uses as the conceptual basis of engagement have become a matter of consideration in recent years (Stake 1998). Whether the NSSE's dimensions of engagement are accepted or universities look to other methods to define and measure engagement is not addressed in the current study; rather the emphasis is the question of whether incorporating new forms of self- and peer assessment in undergraduate teacher-education courses can improve engagement from the students' perspective. However, since the NSSE is the preeminent tool by which engagement is measured in higher education in the United States, this article will use the five dimensions of the NSSE framework to evaluate the ASPAL process. It should be noted, though, that the foundational principles of this project and its relation to engagement were not originally based on the NSSE framework, but on the Australian Learning and Teaching Council's project *Assessment Futures*, led by Boud and Associates (2010), and on a comprehensive literature review, which resulted in the operational definition put forth in this article. The implementation of this model paralleled four of the five NSSE dimensions of engagement: active and collaborative learning; student-faculty contact; enriching the educational experience; and level of academic challenge. While it is envisaged that these assessment models have some capacity to help promote a supportive campus environment, this dimension was found to be too broad to be notably affected by the small population of students who took part in this research.

## **Authentic Assessment**

The idea of authentic and sustainable assessment is one that focusses on assessment tasks that have applicability to the world outside the classroom, and that foster autonomous learning. Sustainable assessment has been described by Boud (2000) as "the knowledge, skills and predispositions that underpin lifelong learning activities" (p.151); moreover, it reflects the ideals of sustainable learning. The implementation of the ASPAL process endeavours to meet the needs of the present without compromising students' ability to meet their own future learning needs by encouraging collaboration and engagement to achieve sustainable learning.

Research has shown strong links between the implementation of authentic assessment and high-quality learning (Brown, Collins & Duguid 1989; Darling-Hammond & Snyder 2000; Ridley & Stern 1998). The use and implementation of authentic assessment has two significant features: it has the ability to re-engage students in the development of content-based knowledge through strengthened links with the outside world; and it has the capacity to enhance student learning through the provision of skills such as critical thinking and creativity (Darling-Hammond & Snyder 2000).

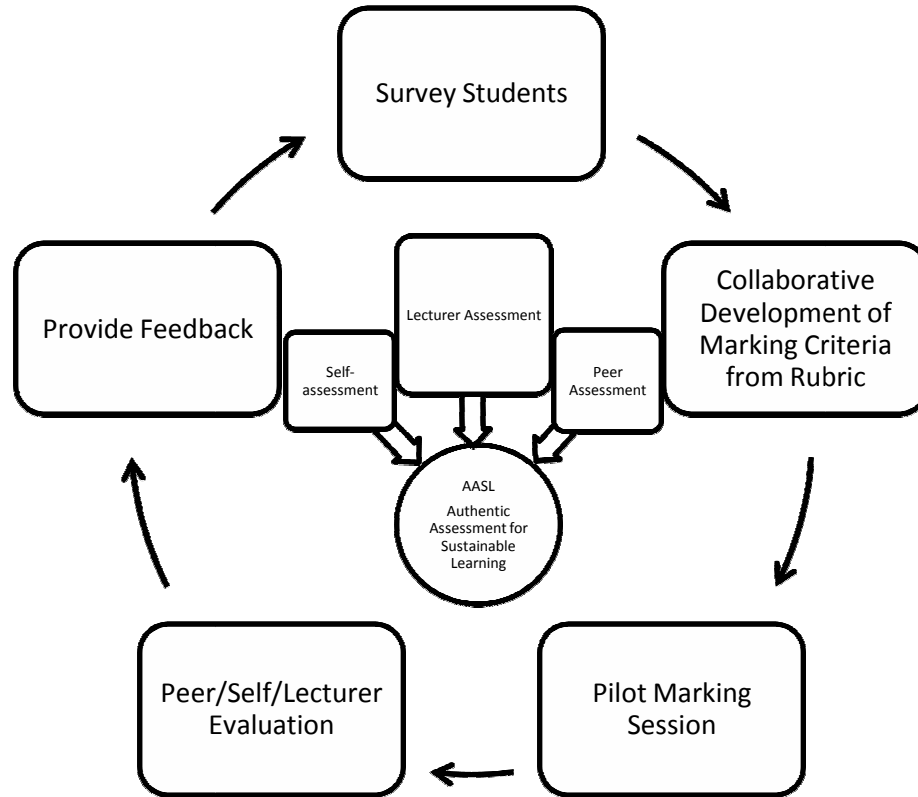
For most students, assessment is the most important aspect of their coursework (Lamprianou & Athanasou 2009; James et al. 2002). Therefore, acknowledging that assessment is a critical element to maximise student learning potential is a necessity. For over a decade, research has been promoting the development of professional skills such as problem-solving, critical thinking, creativity and autonomy and authenticity in learning through innovative forms of assessment (Dochy, Segers & Sluijsmans 1999). If students can be engaged through what they value most,

then assessment should be used to encourage those skills and proficiencies that students will need, both in and out of university, to ensure their future success; this is what the ASPAL process seeks to achieve.

### **Authentic Self and Peer Assessment for Learning (ASPAL)**

The development of the models of assessment (see Kearney 2012) was based on the seven propositions for assessment reform in higher education recommended in *Assessment 2020* (Boud & Associates 2010). Through an intensive literature review on assessment, with specific emphasis on the implementation of self- and peer-assessment at the tertiary level, informal interviews with undergraduate education students and the perceived limited levels of engagement in our own courses, a model of assessment was developed that was envisaged to have the potential to shift the ways students regard assessment and transform how it occurs. The ASPAL process (Figure 1) takes place as follows: first, students and lecturers collaboratively develop marking criteria to engage students from the outset of the assessment process and allow them to be stakeholders in the assessment process. Next, students undergo a pilot marking session to learn how to mark against criteria and come to an understanding of how to judge the level of work based on those criteria. Then two peers collaboratively mark anonymous assignments, give feedback and assign a mark as a percentage; this mark will account for 30% of the overall final grade. Students then mark their own papers against the marking criteria with the additional point of reference of their peers' assignments they had just marked; this self-assessment accounts for another 30% of the overall mark. The last stage is the lecturer's mark, which is worth 40% and acts as a moderator for the self and peer marks. The three marks together account for a cumulative total mark for the assignment; however, to ensure accountability and the integrity of the marking process, any student-generated mark that is more than 15 percentage points either above or below the tutor's mark is discounted. Finally, feedback from the peers and lecturers is disseminated in a debriefing session. While it would be ideal to involve the students in the creation of the task, institutional regulations do not allow for this. The results presented here seek to establish whether the ASPAL process is successful in engaging students in learning.

Figure 1



## Methodology

This research was conducted in a bachelor of primary education course at the University of Notre Dame Australia, in Sydney. The cohort selected to participate in the research were 230 first-year students in their second semester of study. These students were chosen because they had had some experience with university assessments in their first semester, but would also have time throughout the rest of their course to undertake the process again (it is envisaged that they will do this two or three more times) to see if their judgement improved as a result of repeated exposure to the assessment process. The task was an individual task, where each student created a lesson plan for a stage three (year five or six) mathematics class.

At the beginning of the semester the process of ASPAL was explained to the students, and they were asked to complete a preliminary survey that sought to ascertain their current dispositions towards university assessments, engagement in their units (classes) and levels of satisfaction with various aspects of their course. The following week the students looked at exemplars of lesson plans and, guided by the lecturer, practised marking those exemplars with their peers. In the third week, the students and the lecturer collaboratively developed the marking criteria that would be



used to mark the students' lesson plans. In the fourth week, the students undertook a pilot marking session, marking different exemplars so that a consensus as to the quality of the lesson plans and marks was determined; the marking criteria were also refined during this session as a result of students' feedback. Two weeks later their lesson plans were due, and the self and peer marking took place. During the last week of the unit, students were asked to fill in a post-ASPAL survey, again looking at aspects of engagement, satisfaction of their course and their experiences of assessment, this time focussing specifically on the process they undertook in their prescribed unit of study. The post-ASPAL survey comprised of questions that measured students' responses on a four-point (0-3) scale, and gave them the opportunity to provide open-ended responses to amplify their answers.

The results in this article were collected from the post-ASPAL survey, focussing specifically on students' qualitative responses to establish whether their views of assessment and engagement had been affected by undertaking the ASPAL process.

## **Results**

While it is difficult to quantify the overall success of the model at this stage, what is sought is an examination of the aspects of the data with regard to the capacity to affect student engagement. Evaluating the data collected and collating the results revealed trends from which some generalisations can be advanced about the research and how it may be able to aid in engaging students.

The qualitative responses show that the students were positive overall in their perceptions of the ASPAL process. The students were asked four open-ended questions (Appendix 1), and 63% of students answered positively (2-3 on the four-point scale) regarding the model, while 30% answered negatively (0-1). Two aspects of the model to which the students were asked to respond were: whether they found the process beneficial to their learning; and the degree to which they felt more or less engaged with their assessments by undertaking the process. Students were also given two other opportunities to provide open-ended response: the first was a question that asked students to note any aspects of the process that were not valuable, and the second allowed for additional comments to be made. While only one of these questions asked specifically about engagement, the responses to the other questions provided valuable data with regard to engagement as defined by the NSSE; specifically, enriching the educational experience.

The data dealing specifically with engagement showed that 61.5% of respondents said that the process engaged their interest either "highly" or "very highly", and thought it would better prepare them to engage with future assessments; a further 12.8% rated it as "moderately" beneficial; and 25% regarded the process as not beneficial. A favourable response to the question is illustrated in the following statement:

Since this process I find that I am more aware now of what's expected of me in assessments and the marking criteria and how markers approach them is now more clear. I'm also no longer disappointed with a mark as I have some idea of what I'll receive.

Another reads:

It has assisted me with understanding what to look for in a given assessment task whilst allowing me to analyse my own work and use the feedback given by the fellow peers and my tutor in future assessments.

Positive responses such as these, which were accompanied by ratings for the process of 3 and 2, respectively, are indicators that the students found some value in undertaking it. Although these responses showcase the positive, many students were not as optimistic about the future benefits of this process. A favourable “moderate” response is exemplified by the following:

I think that I would be more likely to get another person to proofread my work. I already proofread my own work, but another person’s perspective, I can now see, will be beneficial to my marks – assuming that they are the right person to ask.

A less favourable “moderate” response was: “I focus on marking rubrics because I could only mark from the rubric.” Many of the those students who rated the benefits of undertaking this process as either moderately beneficial or not beneficial with regard to their engagement omitted the open-ended response; however, remarks from students who marked “not at all” responses included: “all the skills it aimed to achieve I already do with the exception [of] knowing what peers’ assessments are like”; “what I did for this assessment did not differ from what I do for others”; and “no real learning”.

Another question asked students about the benefits to their learning of undertaking the ASPAL process (question 8); the responses, in this case, were more definitive. Seventy-one percent of respondents answered that the process was beneficial to their learning and 18% that it was not; 10% of respondents noted both positive and negative aspects of the process. A commonality in the responses of students who answered positively and/or ambiguously was that they found the opportunity to see the work of their peers to be most beneficial in helping them better judge their own work.

Typical responses that exemplify this finding are: “it shows us each other’s work and we are able to put our marking skills to use as well as knowing what level our work should be”; “it gives us the opportunity as students to look at what others have done and what we can improve in our own work”; and “it allows students to see what their fellow students think of their work with not just teachers, and it allows us to get feedback from both perspectives and use that for further tasks”.

While these were just a few of the responses that mention the benefits offered by the opportunity to see other students’ work, 82% of all respondents – including those who were negative or ambivalent – mentioned that seeing others’ work was an aspect of the process they found valuable.

The negative responses for the same question expressed discontent with the model, but mostly focussed on the outcome of the task rather than the process itself. While the correlational results between the lecturer, self and peer marks on the task are yet to be analysed, the negative responses to the question regarding learning in particular refer to the inaccuracy of the marking: “there were too many problems with it. I did not find it very helpful. The marks were all different so you did not find out what your actual mark was”. Another student remarked:

Some of the marks given by students for peer assessment were way off the marks given by teachers themselves. I think there should be a few practice runs before students mark other peoples' work to understand how they should really be marking.

These responses express one of the common problems that often arise in tasks that rely on peer assessment (see Zariski 1996); however, it is hypothesised that through a continued acculturation into self- and peer assessment throughout the students' course, these problems can be mitigated by improving students' judgement. One of the factors that led to choosing a first-year cohort to participate in the study was that there would be time to change the culture of learning and build upon their first year's experience to improve their skills of judgement over time, resulting in a better prepared teacher for the classroom, where judgement and discernment are critical professional skills.

Initial feedback from colleagues on the post-ASPAL survey revealed that the questions could be perceived as positively geared, which according to Esterman (2003) is a shortcoming of the four-point scale. Despite the possibility of positively gearing the questions, the intent was to force students to take a stance, rather than opting for an ambivalent or neutral response, as is more common in five- or seven-point scales (Esterman 2003). Rather than revising the scale, the decision was made to include a question specifically asking for comments about the negative aspects of the model to gain critical feedback in relation to the process from the students' perspective. Not surprisingly, this question provided the most constructive and useful feedback on the survey. It should be noted, however, that while the feedback received from this question was valuable, only 40% of respondents responded to it. Since 60% of respondents did not answer it, it can be speculated that those who chose to omit the question found some value in undertaking the ASPAL process. Examining these responses provides a good indication of what, from the students' point of view, needs improvement:

Where to start... I didn't like it for the most part. There was more pilot-marking required – [an] example from each of the grades would have been extremely beneficial. There wasn't enough time allocated to mark the papers. The fact that we had to hand one in before marking the next one meant that there was no correction of marks allowed.

Another student remarked:

I found that there was not enough time to analyse the work, and give the best feedback possible to the student whose work I was marking.

Both of these comments exemplify the responses received: 25% of students commented that there was not enough time to properly grade the tasks, while 15% said that more pilot marking was required. This is incredibly useful feedback for improving the process for future cohorts.

The last question, which asked for "additional comments", not only provided valuable constructive feedback, but allowed students the opportunity to expand on their impressions of the ASPAL model. Although only 34% of respondents answered this last question, 90% of their comments were encouraging. The positive responses to this question helped confirm earlier remarks with regard to both the aspects that students found beneficial and those that needed improvement. One such response was:

It was an interesting experience to be a part of. I think the more it is incorporated the easier it would be to get more people involved, yet hard to motivate a lot of people to start with.

Another student discussed both positives and negatives:

I found this assessment model interesting and enjoyable. The time constraints did impact on the way I marked the assessments I was given; however, I believe I did mark consistently with the aid of the rubric. I found this to be a beneficial form of assessment and would definitely take part in it again. Thank you.

Lastly, a student discusses how their perception changed over the duration of the unit:

Before taking part I didn't quite understand or like the idea of the ASPAL model; however, after taking part in the process I now have a greater understanding what this process teaches individuals and its positive effects on all future assessments.

This last comment encapsulates the impact on students envisaged through the implementation of the model. A degree of resistance and scepticism was anticipated from students when the model was introduced; however, the way in which most students were able to embrace the process and try to see the positive impacts it could have on their future learning has made the process and the challenges involved in implementing the model worthwhile.

## Discussion and Implications

According to Bloxham and Boyd (2007) assessment has four purposes: certification, student learning, quality assurance and lifelong learning capacity. While the ASPAL process does not meet the criteria for certification or quality assurance, student learning and lifelong learning capacity are at its core. Assessment practices such as these that allow for, encourage and foster both formative and summative collaborative practices are not meant to replace assessments for certification and quality assurance; rather, when universities use such assessments in conjunction, they have the capacity to maintain standards and accountability while engaging students and cultivate their learning. Although it is believed that the implementation of these models of assessment over time have greater capacities than simply increasing engagement (Kearney & Perkins 2011), the purpose of this article is to present the qualitative data to establish whether students were more engaged in their learning as a result of undertaking the process.

This article does not seek to be conclusive with regard to whether or not the ASPAL process was successful in engaging students in the assessment process; rather, it seeks to open a discussion with regard to self- and peer assessments and their capacity to engage students. There has been ongoing demand for the reform of assessment at both school level (Hargreaves, Earl & Schmidt 2002) and in higher education (Bloxham & Boyd 2007). These reforms, specifically in Australia, encourage educators to meet the learning needs of their students to better prepare them for their careers (Boud 2010; Darling-Hammond, Wei, Andree, Richardson & Orphanos 2009). Through the implementation of the ASPAL model, students experience something they may not have undergone before, which, whether beneficial or otherwise, seeks to expand their educative experience and encourage ingenuity within their own practice. The advantage of implementing

ASPAL with pre-service teachers is that the process of marking and evaluating assignments is an authentic professional skill. However, it is believed that these models can be adapted across a spectrum of fields and could be applied at all levels, with some contextual variation, to promote the generic skills all students require to thrive.

The analyses of these results provide a glimpse into the capacity for assessment practices such as this one to engage students not only in the assessment process, but also, more broadly, into other aspects of their learning. The results, while predominantly positive, cannot definitively classify this first implementation of the model as a success; rather, what can be ascertained from these results is openness on behalf of a significant proportion of students to new methods of assessment that attempt to be more transparent and authentic and to involve students in the process of their own learning.

Trends that developed from the qualitative responses will be integral in the improvement of this process over time; three such categories that emerged were: the time given to peer-assess; the quality and thoroughness of the pilot marking; and the students' motivation to engage with the process. Specifically, the need to give students the opportunity to collaborate with one another and see other students' work was an essential outcome of the research, and one which 82% of respondents found to be beneficial. This is significant with regard to ASPAL's impact on engagement for a number of reasons. One of the driving forces in the implementation of this model was for students to actively collaborate and learn from one another. One of the five dimensions in the NSSE framework of engagement is active and collaborative learning, which from the students' perspective was the most beneficial aspect of the process. This helps to validate the ASPAL model to improve student engagement, but does not go as far as to suggest a causal relationship.

The implications for the use of the model and reasons why it could be more broadly employed are varied. Specifically with regard to education students, the task itself and the process undertaken replicate classroom practices, thus making the entire process authentic to the students' future work. Although the task and the process were created for use with education students, interest in the model has been wide-ranging. Involving students throughout the entire assessment process means that they become stakeholders in the learning process; rather than being assessed, students learn through conducting assessments. In any course where the process of learning is at least equally as important as the content learned, the ASPAL process could be beneficial in engaging students in their learning.

The process in its initial implementation was clunky and burdensome to the lecturers who implemented it; however, with more time, and implementation in tutorials rather than lectures, we believe the process can be streamlined and integrated better into students' courses. For example, for the students to be able to mark their peers' work, they were required to hand in three copies of their tasks, which were then manually coded with a unique number to ensure anonymity during the peer-marking phase; this process took far too long and could be better managed.

Despite certain shortcomings in its initial implementation, the process improves itself every time it is implemented. By surveying students both before and after the process, we were able to gain insight into student perceptions about it; this has provided, and will continue to provide, critical

feedback for improving the model so that it continues to meet students' evolving needs. ASPAL is an ever-changing process; the model proposed seeks to open a dialogue of assessment between teachers and students so that assessment can better meet the current and future needs of all stakeholders.

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## **Appendix 1**

The overall response rate for the survey was 95%.

Students were asked four open-ended questions:

Question 6: Were there any aspects of the process that you did not find at all valuable?

Question 8: I believe the ASPAL model of assessment ***will be/will not be*** beneficial for future assessments and learning because....

Question 9: To what degree has the ASPAL model of assessment impacted your ability to engage with future assessments? Why?

Question 10: Are there any additional comments you would like to make in relation to the ASPAL model of assessment and your own experience undertaking this form of assessment?