

Establishing a community of practitioners through an innovative response to student retention in online learning: Thinking smart at Open Universities Australia

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ABSTRACT

Whilst innovation in instructional technologies provide a dynamic landscape for education, the fundamental issues relating to creating and sustaining a positive learning experience continue to prove problematic. Resolving this issue is particularly important to responding to student needs and sustaining quality programs at Open Universities Australia (OUA).

In 2007 Open Universities Australia (OUA) began an innovative long-term trial of an online tutorial intervention to deal with issues of varied levels of academic written competence amongst its students. Students demand a more individualised online learning experience which includes indepth feedback on written texts which in turn, increases pressure on tutor time. The ultimate goal of the trial was to improve student progress and address issues of student retention. This paper reports on an innovative project whereby academic tutorial support was provided through a collaborative partnership with Smarthinking forming a community of practitioners to address issues of improved:

- student satisfaction with the level and timeliness of feedback,
- retention into subsequent units,
- unit completion rates,
- and, student grades.

The paper details how the need for any intervention selected was to be online and accessible to learners at times that suited flexible study schedules (often crossing time zones). It also discusses how the learning intervention based on interactive educational technologies provided a way of personalising the e-learning experience for OUA students creating a learning community.

INTRODUCTION

OUA is owned by seven universities and provides units in over 100 subject areas. It's Australia's fastest growing online, distance higher education service where students can graduate with qualifications from 15 providers. Since 1993 there has been over 110, 000 enrolments and these continue to grow. The open enrolment scheme for undergraduate offerings means that students do not require academic qualifications to enroll. The reality is that some students may find there is a lead time whilst they develop their repertoire of academic literacies. This places some pressure on content tutor effort in working with students whilst this occurs, particularly in the area of writing literacies. In 2007 Open Universities Australia (OUA) began an innovative long-term trial of an online tutorial intervention to deal with issues of varied levels of academic written competence amongst its students, increasing pressure on tutor time and demand from students for a more individualised online learning experience. This paper reports on an innovative project whereby academic tutorial support was provided through a collaborative partnership with Smarthinking.com forming a community of practitioners to address issues of improved student satisfaction with the level and timeliness of feedback; retention into subsequent units; unit completion rates; and student grades.

LITERATURE REVIEW

The advent of mass higher education or massification (Scott 1995) is seen by researchers as a significant change in most of the western world (Taylor 1999; Pascarella and Terenzini 2005). The terms refer to the trend by universities to attract an increasing number and more diverse cohort, than in the previous three decades. Open Universities Australia (OUA) can be viewed as a response to dealing with larger numbers of students wishing to undertake studies. OUA is owned by seven Australian universities and is the country's leading provider of distance education. Courses are provided by the seven shareholder universities as well as eight other providers. In 2007 enrolments continued it's upward trend to grow by 32%. OUA's student makeup reflects the general pattern for Australian universities as more adult learners seek to access university level courses (DEST 2002) based on diverse personal and/or professional requirements. There is a gamut of courses offered over four study periods per year at undergraduate and postgraduate levels. These represent, amongst other discipline areas: health sciences, education, business and commerce, arts, information technology and visual arts.

Generally, students who enter university may present with a range of skills and expertise and this is no different at OUA. Here, students represent several cohorts: part-time learners both adult and of a younger age; traditional and non-traditional and first generation students. The literature indicates that drop-out rates are higher than for younger students as the pressure of combining study with other commitments often causes stress and, finally, withdrawal (Kember

1981; Kember 1995). The probability of mature-aged students completing an award is lower than for their younger counterparts (McInnis, James et al. 2000; Krause, Hartley et al. 2005), and this trend is even worse for older females (Rudd 1985). This is despite mature students having a clearer objective for the purpose of their university studies than their younger peers (Krause, Hartley et al. 2005, p.15). The research on first year experience (FYE) provides insights into the problematic nature of entering into academia (McInnis, James et al. 1995; McInnis, James et al. 1995; Krause, Hartley et al. 2005). Long, Carpenter and Hayden. (Long, Carpenter et al. 1995) suggest that a student brings 'intellectual capital' from school to a higher education environment so previous academic success seems to be an additional variable for success at tertiary level. This is echoed by Kember (1995) who argues that successful 'academic integration' may be difficult if students cannot integrate intellectually. He explains this as being able to partake in the literacy practices that underpin university level studies. Kember (1995) notes that students who have never studied by distance before 'need to learn new conventions and recognise quite different conceptions of knowledge'.

This argument reflects the theory of literacies, specifically academic literacies and the idea of entering into Discourse as postulated by Gee (1996) (identified by upper case 'D' to distinguish it from the sense of discourse as encompassing more technical attributes). He notes the Discourse of gangs, academic disciplines and children as identifiable through language used, ways of interacting, gesturing, activities, institutions and other symbols. Academia represents one such Discourse: it has its own language, practices, value system and elements that identify it within the institution that, in turn, embodies and cultivates this Discourse. Academic disciplines have been described as 'tribes', characterised by their own discourse sets, paradigms, knowledge bases (Becher 1989). Such notions contribute to an understanding of the concept of universities as 'communities of practice' (Lave and Wenger 1991) or learning communities and students as 'legitimate peripheral participants' (Lave and Wenger 1991) of the academic community. It is a notion that provides a perspective of student endeavour as these peripheral participants progress towards successful scholarship and full participation in the academic community. Discourse elements are often the focus of the research on student attrition and retention (Tinto 1993; MacKinnon-Slaney 1994; Kember 1995; Braxton, Shaw Sullivan et al. 1997; Tinto 2000). The development of academic writing literacies is notable as an area of concern for students and their lecturers as this area is a vehicle for student participation in academic practices (representing the Discourse) (De Fazio 2007).

Of particular interest to this study is that of academic written discourse as part of the notion of entering into a community of practice which, in turn, is identified by a certain Discourse. "Until fairly recently the pervading view of academic staff, and possibly also of students, appeared to be that writing was both homogenous and transferable and that it was not unreasonable to expect students to be able

to write before entering into university" (Lea and Stierer 2000). The reality as borne out in this study is that students may not always embark on university studies equipped with a strong writing skillset and this may lead to some tension during their study experience.

THE STUDY

The inception of this study was based on OUA tutors reports on the student expectation that students provide highly individualised, detailed feedback on their written assignments. This expectation caused some concern for tutors for two reasons: firstly their time pressures and secondly teaching students to write is a discipline in itself and one in which tutors did not feel they were necessarily expert. Thus there was enough anecdotal evidence to indicate that students might find that writing at an academic level challenged or even limited their participation in scholarly activities. Students reported feeling disenfranchised and isolated ultimately, as was assumed, having an effect on low retention levels. OUA sought an online academic support intervention that would respond to student needs and provide support for tutors so that they were enabled to concentrate on content delivery.

Smarthinking.com offer an online writing lab (OWL) whereby students can submit an assignment of up to 10 pages for feedback in 24 hours, seven days per week. The flexibility offered was attractive as was the knowledge that Smarthinking e-structors provided individualised feedback on each assignment. Further that the e-structors were specifically trained to offer feedback on writing composition rather than address issues of assignment content as OUA views the latter to be the domain of the subject tutor exclusively. Figure 1 demonstrates the assignment registration page which asks students to provide details of the sort of writing assistance required from the e-structor.

Figure 1: Assignment registration page

SmartThinking.com - Windows Internet Explorer, provided by IE Proxy GPO Ver. 1.3.4

http://www.smarthinking.com/universities/submit/submit_assignment.asp?university=2199

SmartThinking.com

Submit Your Writing

Note: Fields containing an * are required.

SMARTTHINKING strives to return essays within 24 hours.

Name: OUA 1159588

Subject: Essay Centre

School: Open Universities Australia 08 - Open Universities Australia

* User Code and topic: [text input]

* Coordinator/Topic: [text input]

* Due Date: [calendar icon] [time icon]

* Draft Number: 1

Submission Number: Submission 1

* Title of the Essay: [text input]

* Provide a clear, detailed description of the assignment

Please include information about the expected length of the assignment

* Describe the kind of help you would like from the e-structor

* Select up to five areas in which you need help:

<input type="checkbox"/> Content Development	<input type="checkbox"/> Organization
<input type="checkbox"/> Reproduction/Conciseness	<input type="checkbox"/> Use of Resources
<input type="checkbox"/> Main Idea/Thesis	<input type="checkbox"/> Transitions
<input type="checkbox"/> Grammar & Mechanics	<input type="checkbox"/> Sentence Structure
<input type="checkbox"/> Word Choice	

The overall aim of this research was to ascertain whether the inclusion of academic support might provide a learning collaboration between participants (content tutors, Smarthinking e-structors and students). Thus, the collaboration might lead to a more effective online learning experience for students. The aim was that a learning support intervention might lead to improved: retention into subsequent units; student grades, and, unit completion rates.

Interpretation of terminology should be clarified at this point. Retention is given to indicate student re-enrolment in a unit at OUA within three study periods from the time of participating in the research. Completion indicates that students actually completed the whole unit, whether pass or failing whilst actual grades received constitute a third element of the research focus.

THE RESEARCH APPROACH

Data was collected over three study periods in 2007 from both OUA students and tutors to ascertain perspectives and insights into their respective experiences of the service. Data was collated via online surveys, formal and informal interviews and documentation. All surveys were conducted online and were made up of a combination of multiple choice and open ended questions. The student survey was open to users and non-users of Smarthinking. These were distributed in week 6 and continued to be open till the end the thirteen week study period. Further, student Follow-up surveys were distributed three weeks after the completion of a unit to triangulate data and attempt to negate any novelty value that the service may have elicited.

Tutor surveys were also designed to explore evidence of the value of the academic support intervention from a pedagogical viewpoint. Tutors were asked to compare submitted assignments with marked up drafts and review e-structor feedback for various aspects of validity and relevance.

Findings are presented based on qualitative and quantitative data which enable an understanding of the trial from both a student and tutor perspective. Quantitative data was analysed using nonparametric statistical analysis, for both nominal and ordinal data.

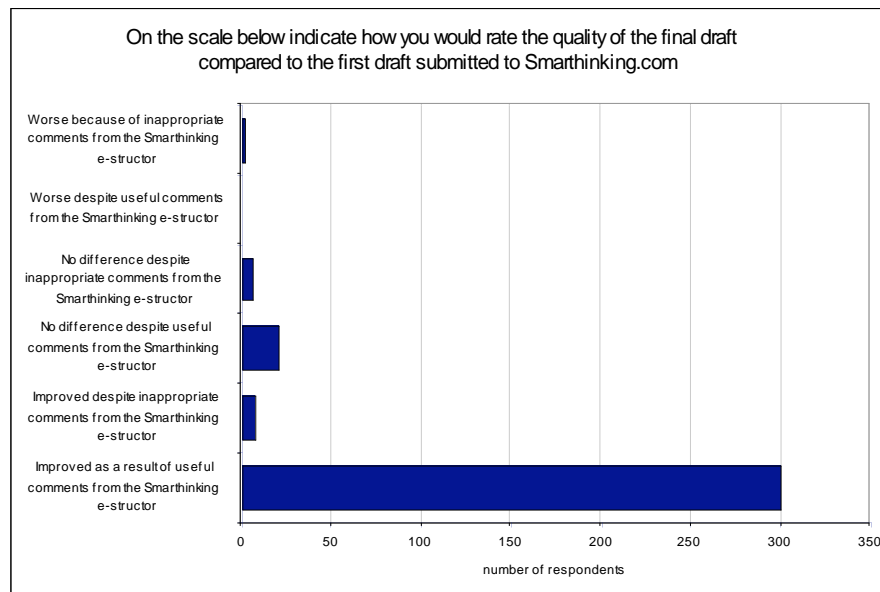
Participants (voluntary) in the trial represent a range of cohorts. Respondents to the survey represent 35 accredited units from a range of disciplines such as management, academic preparation, history and English. Student ages varied from 16 to 68, with 320 females and 107 males in the three study periods combined. There were 20 tutors involved in the trial, each reviewed a varied number of essays. The tutors represented nine units (seven undergraduate and two postgraduate), a diverse range of discipline areas and seven university providers.

RESULTS

Data was analysed in relation to aspects of writing development and then student progress. The findings are presented here.

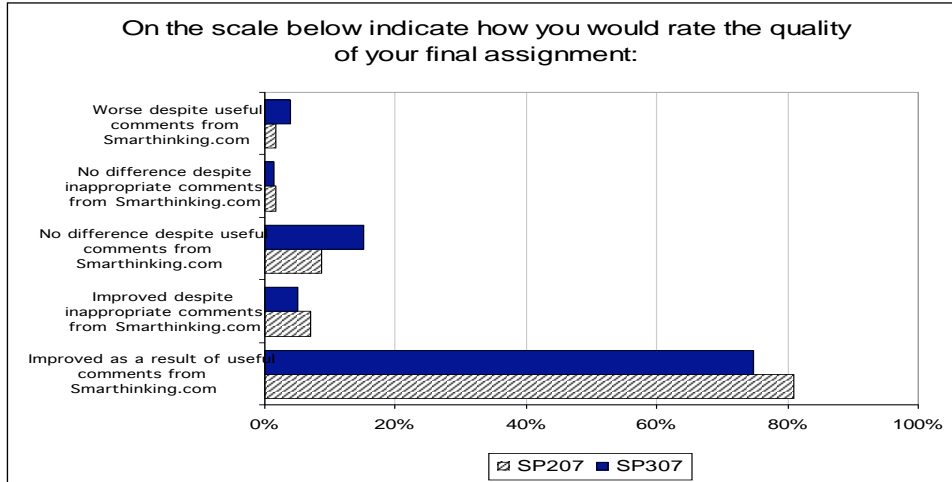
Students were asked to comment on perceived improvement in the area of academic writing competence from a student perspective. Combined data over the three study periods on are indicated in Figure 2.

Figure 2: Rating the quality of the final draft compared to the first draft.



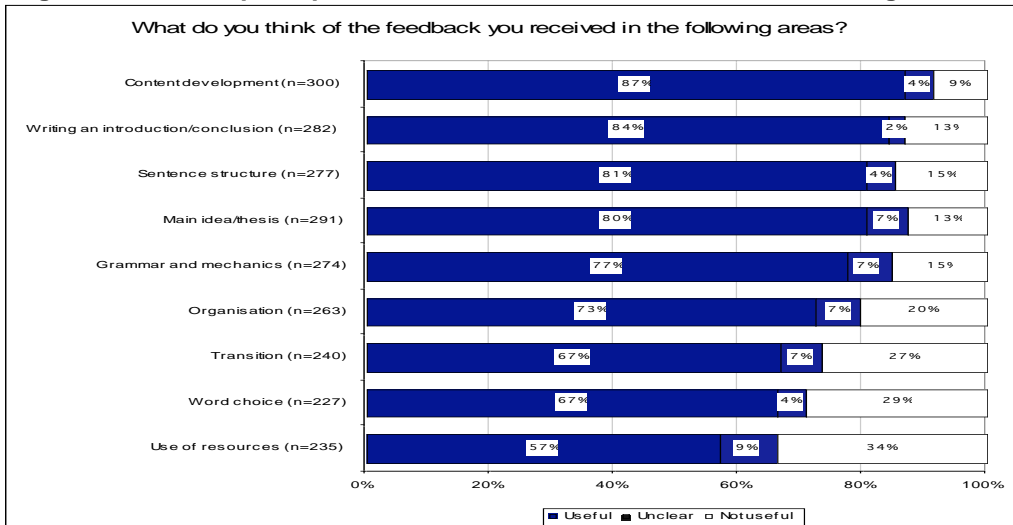
In the follow-up survey students were again to ask rate the quality of the final assignment (to ascertain whether the students responded so positively due to novelty value). As can be seen there was again a positive response in the two study periods analysed (see Figure 3).

Figure 3: Rating the quality of the final assignment on Follow-up student surveys



Students indicated overwhelmingly that they felt that their final version improved after using the online writing lab. Students were asked to reflect on areas of their writing in which they felt they gained the most valuable feedback. The categories are those used by students when uploading their assignments on Smarthinking for purposes of consistency with terminology used. Data is summarised in figure 4

Figure 4: Student perceptions of feedback received on various writing elements



(Note: N/A responses were removed from the total N, where it was assumed that a student selected N/A where the e-structor was not instructed to comment on that aspect of that submission).

Combining the data, results clearly indicate that the bulk of students who used the SMT service found it to be useful with regard to a range of writing components particularly at a level which facilitated the development of content within the parameters of the text structure. This was further supported by comments from both tutors and students:

I am so new to essay writing. I found I learnt a great deal of information for my first essay This has given me more confidence and understanding. Thank you.. (Student comment)

I found the comments positive and helpful, would consider using again. I was a little sceptical about the idea at first. (Student comment)

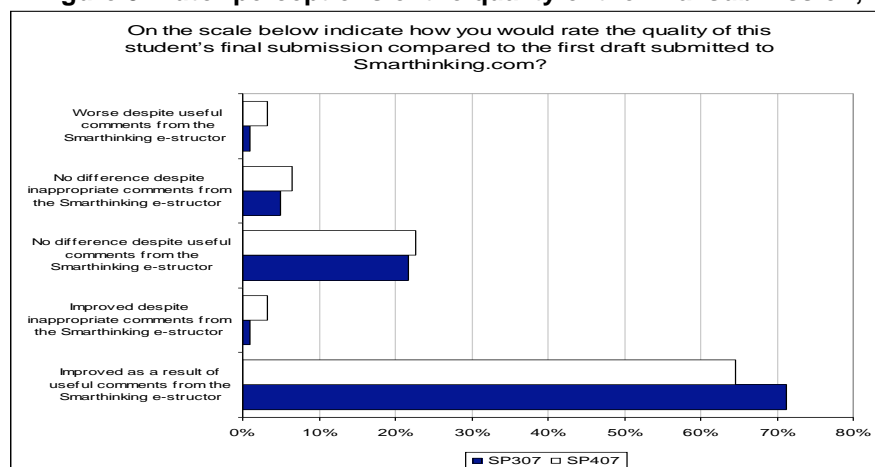
The e-structor commented on the introduction and suggested that the student needs to express the thesis differently. I believe that the suggestions concerning the introduction were valid. (Tutor comment)

The e-structor commented on discussing the quotes used in a paragraph. I agree with this point. The e-structor also commented on referencing within the paper, this was good. (Tutor comment)

Over 75% (n=137) of students indicated that they felt there was an improvement in the final draft of the assignment in the follow up surveys. This indicates that even after receiving back their assignments from their course tutors, there was a significant sense amongst students that they were enabled to prepare a higher quality assignment through use of the OWL.

Tutor perspectives were important in gaining an understanding of the value of offering writing supplement to complement content delivery and realising teaching objectives. Tutors were asked to select a random sample of assignments and compare marked up versions with comments from e-structors with final versions submitted for grading. Tutors were then surveyed and in study periods three and four found that students final drafts improved as a result of guidance received from OWL e-structors as seen in Figure 5.

Figure 5: Tutor perceptions of the quality of the final submission,



At least 65% of tutors indicated they felt there was an improvement in assignment quality. This finding supports that of student perceptions on the same aspect. Whilst the data should be treated cautiously given the number of tutor

participants representing a small sample of units, it provides some indication of an improvement. It should be noted however that a proportion of the accredited units were focussed on academic preparation skills. The tutors of these units were skilled in writing to be able to interpret the interplay between e-structor feedback and student drafting well, as expressed below:

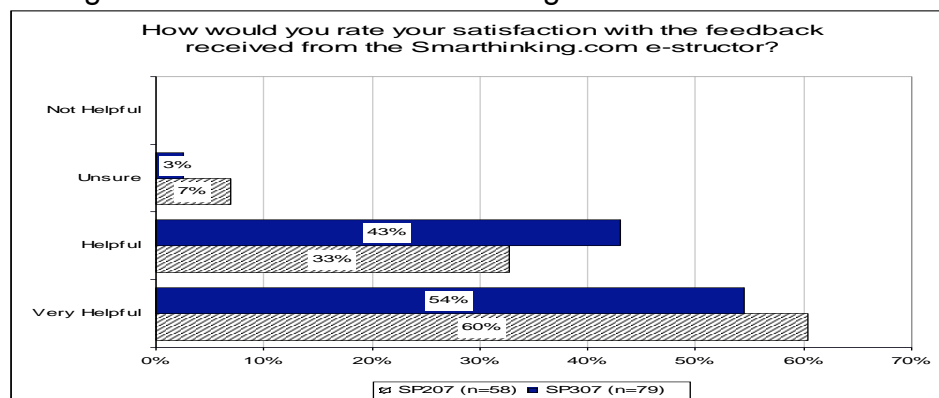
The Smarthinking e-structor's contribution did match the assessment criteria that I use.

e-structor points out where transitions do not work and where the thread of the thesis is lost.

The smarthinking tutor suggested that the student have a clearer structure and avoid going back and forth with ideas because it made her argument confusing. The student did make the necessary changes.

Quantitative data from student surveys indicate that overall satisfaction amongst students was high (Figure 6)

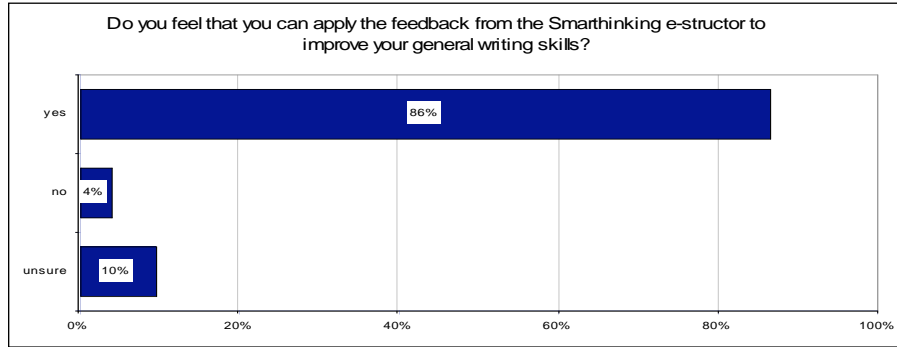
Figure 6: Student satisfaction rating with e-structor feedback



Students rated their satisfaction with using the online writing service as either helpful or very helpful with at least 93% of students providing positive responses in both study periods with no respondents indicating the feedback was unhelpful in either study period surveyed (figure 6). This finding is consistent with previous findings on perceptions of the value of general feedback.

Students were asked to reflect on their learning experiences to ascertain if they felt it enabled to progress successfully through their studies. Specifically, students were asked if they felt there was transferability between the knowledge received from e-structor guidance and the development of their general writing skills (Figure 7).

Figure 7: Student perceptions of general writing improvement



Responses indicated that students felt their general writing skills improved as a result of feedback gained through using the OWL. 86% (n=281) of students indicated there was an improvement and 10% (n=31) were unsure with 4% (n=13) responding this was not the case. This aspect was investigated again in the student follow-up surveys where students were asked two questions on the development of their academic writing techniques specifically and the development of writing skills in general. On both items at least 80% (n=113) of respondents in the two study periods indicated that improvement in both areas was achieved.

Students were also asked to reflect on whether they felt they had improved as learners as a result of their OWL experiences. Overwhelmingly over 90% (n=129) of respondents indicated that they felt there was an improvement in themselves as learners as a result of e-structor guidance and this, as the literature indicates, is important to situating themselves in the role of a learner. Given the online distance aspects of the experience, this was deemed to be an important outcome of the study.

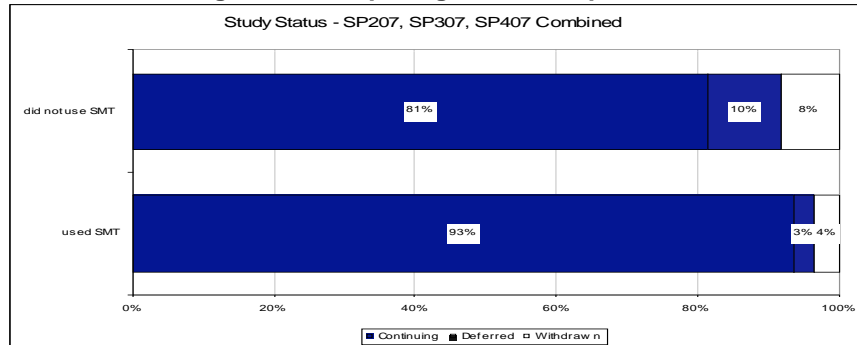
Further investigation into the reasons how students might view the experience of using the OWL in relation to their mainstream learning experiences demonstrated some interesting results. Students felt that the e-structor provided feedback that a tutor did not normally give with 35% (n=27) in Study Period 2 and 31% (n=33) in Study Period 3 indicating that this was the case. Also, that feedback received from the e-structor was consistent with that received from their OUA tutors 44% (n=34) in Study Period 2 and 46% (n=48) in Study Period 3.

Thus the three major stakeholders (students, e-structors and tutors) were able to function in a complementary way and one that resulted satisfaction for all concerned. The question then is to what extent was the is type of collaborative learning episode influential on student progress as, ultimately, that was the shared goal of each of the participants. The following section reports on data on this aspect.

STUDENT PROGRESS: A LOOK AT GRADES, COMPLETION AND RETENTION RATES

Students were tracked to ascertain any correlation between using the OWL services and retention patterns. Figure 8 presents combined data over the three study periods as available so far in the trial.

Figure 8: Comparing Retention patterns



Note: phi significant $p=0.000$

There were significant differences in the retention patterns between students who used Smarthinking and non-users with 93% (n=959) of those who used Smarthinking continuing their studies at OUA compared to 81% (n=7884) of those who did not use the service. Further deferral rates of 3% (n=30) and withdrawal rates of 4% (n=37) were lower for users as opposed to non-users with deferral rates of 10 % (n=1005) and withdrawal rates of 8% (n=801).

Certainly, the higher retention rate should be treated cautiously as it might be due to factors such as the implementation of a tutor training program in online teaching through OUA's Online Student Centered Discussion (OSCD) program; change of staffing, revised curriculum and other such elements that occur as part of normal review and improvement processes both at provider and OUA levels. However, there is enough of a positive tendency indicated to warrant further investigation in a detailed, longitudinal study which is now in progress.

Nonetheless, whilst the findings on retention should be treated cautiously, findings on pass rates indicated a positive correlation also (see Figure 9)

Figure 9 Completion rates per study period

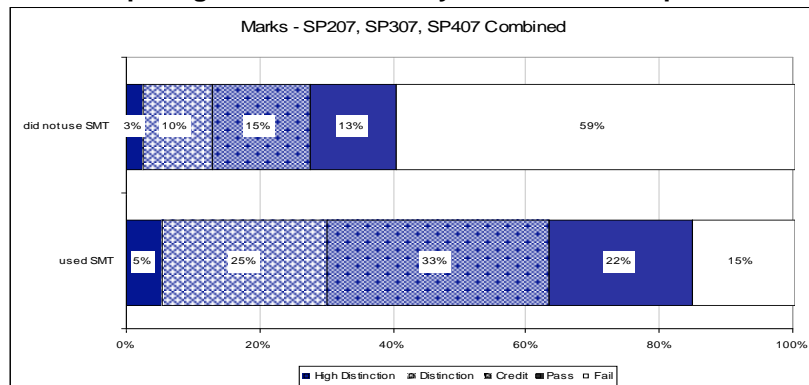


Note: At the time of data analysis complete data for Study Period 4 was not available

As seen in the above box plot, the proportion of students who complete their studies is higher amongst users of Smarthinking than non-users. A paired T-test confirms significant difference between SMT users and non-users ($p < 0.000$). However, there is no significant difference ($p > 0.05$) between study periods. Data suggests SP207 achieved the same pass rate at SP307.

Further analysis was undertaken, specifically, on grades achieved by users compared to non-users to ascertain whether the learning experience was enhanced and outcomes improved. For each study period, the marks of students who used the OWL were significantly higher than for those who did not as indicated in Figure 10.

Figure 10: Comparing Marks achieved by OWL users compared to non-users



Note: Kendall's Tau Significant $p = 0.000$

Data in figure 10 was combined over the three study periods and indicates that users achieved higher grades overall than non-users with 30% of users achieving grades of distinction or above as compared to 13% of their non-user peers; 33% achieving a credit score as compared to 15% and 22% compared to 13%. Moreover, fewer student users of the OWL failed their studies during a particular study period than their non-user peers (15% and 59% respectively). Thus, it would seem that students who used the OWL fared better in regards to their grades. Through the longitudinal trial that is continuing, further investigation into the backgrounds of these students and their progress is being undertaken to better ascertain patterns and to identify if certain cohorts seek out OWL assistance over others.

In short, the research indicates that there seems to be some awareness amongst students that writing skills require attention and that certain writing elements are causing concern. The feedback received by Smarthinking e-structors is well received by students and tutors, both reporting that the guidance received facilitates student understanding and growing competence with crafting of writing as a developmental skill. Both view e-structors as complementary to course delivery and are satisfied with the positioning of e-structors in a learning

collaboration. In a sense the model seems to be evolving as a partnership based on expertise and stakeholder needs: student needs are based on requiring expert teaching in the content area and expert guidance in developing writing discourse skills to the point of being able to participate in the learning experience. Content tutors rely on e-structor expertise in the area of scaffolding students through to developing proficiency in the area of writing skills. The e-structor depends on the content tutor to contextualise the learning episode (often through the written assignment) to frame the work undertaken with the student. Both educationalists, in turn, depend on the student to negotiate the learning experience drawing on knowledge and expertise presented by the two teaching resources to make informed decisions and engage fully with the learning. It seems that when this is done successfully, student grades and completion rates are ameliorated and students, basically “vote with their feet” - thus retention rates are also affected in a positive way.

CONCLUSION

If students are new to the higher education context in the first instance, and distance learning in the second, the experience may turn out to be quite complicated for the student, and the teacher. Academic written discourse is a specific and major way for students to participate in the Discourse and demonstrates their status as legitimate peripheral participants. Made up of a content expert, an academic support e-structor and the student, the collaborative online learning community in this study proved to be a powerful one in initiating the student into the Discourse. Each strove to fulfil a common objective of facilitating student success and provide a pathway for the student at OUA (retention). Whilst the study continues and will provide longitudinal data on these aspects, the findings on grades, completion and retention rates provide some indication of the power of such collaboration.

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REFERENCES

- Becher, T. (1989). Academic tribes and territories: Intellectual inquiry and the cultures of the discipline. London, Taylor & Francis.
- Braxton, J., M., A. Shaw Sullivan, V., et al. (1997). Appraising Tinto's theory of college student departure. Higher education: A handbook of theory. J. C. Smart. New York, Agathon. **XII**: 107-164.

- Casazza, M. E. and S. L. Silverman (1996). Learning assistance and developmental education: A guide for effective practice, . San Francisco, Jossey- Bass Publishers.
- De Fazio, T. (2007). "Cold hard words in cyberspace": A study of non-traditional and traditional distance students, their lecturers and academic learning support. Education. Melbourne, Monash University. **Doctor of Philosophy**.
- DEST (2002). Striving for quality: Learning teaching and scholarship. Canberra, Commonwealth of Australia.
- Kember, D. (1981). "Some factors affecting attrition and performance in a distance education course at the University of Papua New Guinea." Distance Education 2(2): 164-188.
- Kember, D. (1995). Open learning courses for adults: A model of student progress. Englewood Cliffs, N. J., Educational Technology Publications.
- Krause, K.-L., R. Hartley, et al. (2005). The first year experience in Australian universities: Findings from a decade of national studies. Melbourne, Centre for the Study of Higher Education, University of Melbourne.
- Lave, J. and E. Wenger (1991). Situated learning: Legitimate peripheral participation, Cambridge University Press.
- Lea, M., R. and B. Stierer, Eds. (2000). Student writing in higher education: new contexts. Buckingham, UK, SRHE & Open University Press.
- Long, M., P. Carpenter, et al. (1995). Graduating from higher education. Canberra, Australian Council for Education Research, Dept. of Employment, Education and Training, Australian Government Publishing Service.
- MacKinnon-Slaney, F. (1994). "The adult persistence in learning model: A road map to counselling services for adult learners." Journal of Counselling and Development 72: 268-275.
- McInnis, C., R. James, et al. (1995). Enhancing the first year experience. Melbourne, Centre for the Study of Higher Education.
- McInnis, C., R. James, et al. (2000). Trends in the first year experience in Australian universities. Canberra, Australian Government Publishing Service.
- McInnis, C., R. James, et al. (1995). First year on campus. Canberra, Committee for the Advancement of University Teaching, Australian Publishing Service.
- Pascarella, E., T. and P. Terenzini, T. (2005). How college affects students: Volume 2, A third decade of research. San Francisco, Jossey-Bass.
- Pascarella, E. T. and P. T. Terenzini (1991). How college affects students: Findings and insights from twenty years of research. San Francisco., Jossey-Bass, .
- Pascarella, E. T. and P. T. Terenzini (2005). How college affects students: A third decade of research San Francisco., Jossey-Bass, .
- Rudd, E. (1985). A new look at postgraduate failure. Guildford, Surrey, SRHE & NFER-Nelson.
- Scott, P. (1995). The meanings of mass higher education. Buckingham, UK, SRHE & Open University Press.
- Taylor, J. C. (1999). "The death of distance: The birth of the global higher education economy." Retrieved 3 February, 2000, from <http://www.usq.edu.au/electpub/e-jist.htm>.

- Tinto, V. (1993). Leaving college: Rethinking the causes and cures of student attrition. Chicago, University of Chicago Press.
- Tinto, V. (2000). Linking learning and leaving: Exploring the role of the college classroom in student departure. Reworking the student departure puzzle. J. Braxton, M. Nashville, Vanderbilt University Press: 81-94.
- Upcraft, M. L. and G. L. Kramer, Eds. (1995). First year academic advising: Patterns in the present, pathways to the future. South Carolina, University of South Carolina.