

## Beauty and blended learning: E-learning in vocational programs

**Melanie Brown**

Waikato Institute of Technology

This case study set out to discover how the provision of blended learning focussing on course essential vocabulary, affected students in a module of Diploma of Beauty and Spa Therapies at the Waikato Institute of Technology (Wintec) in Hamilton New Zealand. The results were surprising.

The module chosen for this study, Electrolysis and Electrical Therapies is one of the most complex, vocabulary rich modules in the diploma. The program manager described students who choose to study beauty therapy as practically minded. She explained that these students often struggle with the complicated physical and chemical theory they are required to understand. I designed and developed an online course specifically aimed at supporting the learning of technical vocabulary and complex concepts. This online course ran alongside the face-to-face lessons from a specialist beauty therapist, work experience placements and practical sessions where students perform treatments on paying clients. The response from students, the tutor and program manager in interviews showed that the tools created were appreciated because they allowed more flexibility and highlighted the connections between the various components of the course. However, there were also some puzzling results. Does providing resources, online, in print and in practical lessons actually mean students will use these resources and learn from them? This paper will give a brief outline of the study, and then describe the effect the blended course designed for this study had on beauty therapy students.

Keywords: Blended learning, online, e-learning, vocabulary, vocational, beauty, case study

### Aim of the study

Students at Wintec study a diverse range of subjects at certificate, diploma or degree level. Waikato Institute of Technology's (Wintec's) aim is to maximise student performance through flexible learning. Within Moodle, Wintec tutors have the freedom to design online courses to suit their preferences. This study set out to determine how the provision of blended learning focussing on course essential vocabulary, affected students. First, a suitable group of students was found. These students had some experience of e-learning and some experience studying at Wintec. Then a blended learning course was designed to meet the vocabulary and learning needs of the group.

After discussions with the program manager, it became clear that students studying beauty are diverse in educational background, living location and reasons for studying beauty therapy. According to the program manager, the most difficult part of their studies is the technical understanding of terminology needed to understand chemical and physical processes. This vocabulary underpins the practical application of therapies and enables therapists to understand the safety aspects and appropriateness of therapies performed on clients. The other difficulty for students is their physical distance from campus and family commitments. The design of the course had to take these factors into account.

### Review of literature

Much of the literature associated with e-learning is concerned with constructivism. The constructivist approach to teaching is based on the idea that students construct knowledge for themselves. (Lefrancois, 1997). Many of the e-learning courses provided at Wintec are designed based on the constructivist approach. Research into the way we learn shows that a constructivist style of minimally guided instruction is not successful (Kirschner, Sweller & Clark, 2006, Mayer, 2004). A study by Klahr and Nigam (2004) into whether students learned more through discovery versus direct instruction showed that direct instruction resulted in more learning than discovery. Clark's study (1989) was of particular

relevance as it showed that lower aptitude students, like many of our beauty therapy students, required strong learning support to enable learning. This literature on learning theory led me to adopt a direct instruction or mastery learning approach to the development of the online component of the course. For beauty students, learning complex terminology and processes would not be aided with a discovery approach to learning.

As part of the second stage of study, beauty therapy students have practical classes where they work together to perform treatments that they have learned about in theory classes and had demonstrated to them by the tutor. At this later stage in their learning, a lower level of instruction is of benefit to students so they are able to discover how to perform treatments for themselves. In practical sessions, students work together to carry out treatments using the theory they have previously learned. With mastery of vocabulary, terminology and concepts at the beginning stages of a module, students will have knowledge to build on as they work in pairs and groups in practical sessions.

Another consideration before the blended course was designed was to gain a picture of the role that technology has begun to play in education. A pattern emerged from the literature. The variables found in the face-to-face classroom still remain in the online environment (Ko & Rossen, 2004). Central to the design of any course is the question of who it is for and the role it plays in the curriculum (Ko & Rossen, 2004). Kelly explains that online learning is about the integration of technology into the existing course (Kelly, 2007). With this in mind, it was important that the online course designed in this study addressed the areas where students needed more support and did not try to replace the successful parts of the course such as practical sessions where students and tutors worked together to put their learning into practice. Gunn and Harper's work at the University of Auckland provided an excellent example of this (Gunn & Harper, 2007). First year science courses were high in student numbers, but grades and student satisfaction were low. The researchers discovered that the students did not have sufficient knowledge of basic scientific terminology and concepts to understand lectures and pass assessments. Mastering the basics is essential preparation that allows students to engage in meaningful ways by building further knowledge and connections (Gunn & Harper, 2007). The needs of Gunn and Harper's students were very similar to those of the beauty students in my study. They needed more support to enable them to understand the content of their lessons so they would be able to go on to apply their knowledge in practical sessions.

Vocabulary learning and retention theory was also examined to discover how activities should be designed to maximise learning and retention. Nation (2001) suggests that new words are spaced over the lesson, not in one section. Bahrnick and Phelps (1987) also advise that the design of activities maximises the conditions for learning, for example ensuring vocabulary is presented in context. This was taken into account in the design of the online activities.

## **Research method**

This study used a case study approach and involved face-to-face interviews. Case studies provide unique pictures of real students in real learning situations. They also provide the best research approach for small scale studies with a small number of participants (Cohen, Manion & Morrison, 2000).

The ten students chosen to take part in this study were second year students who were familiar with e-learning and Moodle. As second year students, the tutor's relationship with these students provided a complete picture of their backgrounds, knowledge and performance in the prior year. This allowed the effect of the blended learning course on students to be gauged more effectively.

The program manager who is also the tutor on this course has extensive experience in the beauty industry, however limited experience in using online learning to facilitate learning. Until this study, the online component of the course was simply a repository of information with some links to external websites.

The first interviews of the study were with the tutor /program manager and were informal interviews. This increased the relevance of topics discussed and provided a level of detail more structured interviews lack. Data gathered at this stage were used to inform the design of the online learning tool.

Students were then interviewed before the module started. They were also interviewed during the module and after the module was finished. All interviews with students were standardised interviews with open ended questions. This reduced interviewer bias and enabled data to be compared. The interviews conducted during the module were designed to discover which components of the online course they had used and how they used them.

During and at the end of the module the tutor/program manager was interviewed again. Each interview used open-ended questions to gauge their impressions of the online learning tool created and used in the module.

The online learning tool was developed in Moodle using Articulate software. It took the form of activities on each subtopic within the area of electrolysis and electrical therapies with follow up quizzes to check understanding. The learning management system, Moodle has a record keeping function that was used to track how students used the tool. Although students were provided immediate feedback on their performance, their performance in using the tool was not evaluated as part of this study.

The research study was reviewed and approved by Wintec's Human Ethics in Research Committee and follows their guidelines for research. All students who took part in this research project gave their written consent to be included in this project and for information about them to be presented and published. For privacy reasons all names of participants have been changed.

## Limitations

As with all small case studies, the results of this study may be selective, biased or subjective. This is due to the difficulty in cross-checking the results with other studies. The small scale of this study was another limitation. There were only ten student participants and one tutor / program manager. Due to its size, it may be difficult to draw conclusions that may be applied to other courses at Wintec or other institutes of technology. In the course of the study, as the researcher and online course designer, I built a relationship with the students who participated in this study. This may have influenced their answers. Although some suggested improvements to the online course in interviews, others may not have felt comfortable offering criticism of the online course. The online course was designed within *Moodle*, but interactive activities and quizzes were created in 'Articulate'. These may have been described by students as useful, when in fact their novelty made them seem so.

## Results

### Student participants

**Table 1: Student participants**

| Name             | Background information                                     | Need for flexible study                                                                                       | Useful aspect/s of the blended course designed for this study           |
|------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Susan Briars     | Secondary School leaver                                    | <ul style="list-style-type: none"> <li>Illness</li> </ul>                                                     | Ability to find out where the class was up to if she had been absent.   |
| Lucy Browne      | Secondary School leaver                                    | <ul style="list-style-type: none"> <li>Distance from teaching location</li> </ul>                             | Links with textbook and online course and activities to test knowledge. |
| Alayna Kirsch    | Secondary School leaver                                    | <ul style="list-style-type: none"> <li>None</li> </ul>                                                        | Online component helped in theory and practical lessons.                |
| Anna Karram      | Secondary School leaver                                    | <ul style="list-style-type: none"> <li>Learning needs</li> </ul>                                              | Practical exercises with visuals helped learning and retention.         |
| Bryony Voigt     | Secondary School leaver                                    | <ul style="list-style-type: none"> <li>None</li> </ul>                                                        | Online component helped understanding of vocabulary and theory.         |
| Danah Hill       | Work training/ mature student                              | <ul style="list-style-type: none"> <li>Two young children</li> <li>Distance from teaching location</li> </ul> | Online component useful for pre-learning and review.                    |
| Jane Hill        | Holistic therapy training/ in employment                   | <ul style="list-style-type: none"> <li>Employment</li> <li>Distance from teaching location</li> </ul>         | Online component useful foundation study to face-to-face lessons.       |
| Karla Williams   | Secondary School leaver                                    | <ul style="list-style-type: none"> <li>Recent marriage</li> </ul>                                             | Online component useful for assistance if she 'got stuck'.              |
| Noni Smith       | Graduate re-taking this module/ in employment              | <ul style="list-style-type: none"> <li>Employment</li> </ul>                                                  | Online component useful to assess progress and understanding.           |
| Marissa McDonald | Student of a private training establishment/ in employment | <ul style="list-style-type: none"> <li>Employment</li> <li>Study at another location</li> </ul>               | Links between workbook and online component aided study.                |

The information in the table above shows that most students in this study needed flexible study options. Students all found the blended course developed for this study useful, however students used the online component in different ways to aid their study.

The notes from the interviews were read and categorised under the headings of 'background information about the student', 'need for flexibility' and 'how the blended course was used'. The background information about students and their needs for flexibility was used to determine the learning needs of students. This informed the design of the online course.

From the analysis of the data generated by interviews, another category emerged. How did students use the course? The information discovered here gave important answers to the research question 'how did the provision of blended learning focussing on course essential vocabulary, affect students?' Students used the online course in a variety of different ways, some for preparation for lessons, some for review and others as an assessment tool. For example Noni used the online component as an assessment tool, "I failed this module last year. I just wanted to test myself with the activities" (M. Brown, 2008).

Students, the tutor and program manager felt that the online course was interesting and useful and provided more flexibility in terms of location and timing of study. Danah said "I have children so I liked the flexibility of the online course. I could work at night" (M. Brown, 2008).

The tutor and program manager also felt that the course had a positive effect on students' ability to apply theory to practical lessons. "In practical lessons and assessments I ask students what effect the treatment is having on the client and why this happens. After students had used the online course they could answer these questions more easily" (M. Brown, 2008). Despite this, only two students explicitly linked the use of the online course to increased knowledge of vocabulary and basic concepts that helped them in theory and practical lessons. Lucy said, "The textbook matches the online course activities. This helped me connect ideas" (M. Brown, 2008). Danah also agreed, "The best part was the clear link between the textbook, workbook and online course" (M. Brown, 2008).

Two of the ten students chose not to use the online course. Even though they said that they had tried it and found it helpful, they did not continue to use it. One of these was Alayna. She said, "The online course was very useful, I just forgot to use it. I don't know why" (M. Brown, 2008).

## Discussion

Although students had used an online course through Moodle before, they felt that the course designed for this study was interesting and useful. This was based on their previous experience with an online course that was more like a repository than a course that could be studied step by step with feedback. This links to the theory that direct instruction is more effective than discovery learning. In this case, reading information and working out what was relevant for themselves was less effective than a course that was organised with the same structure as the face-to-face course and moved progressively through steps with feedback.

The design of the online course also allowed students more flexibility. If they were absent from class or had difficulty understanding a lesson, they could go to the online course and use this in conjunction with the textbook and workbook to catch up.

The tutor / program manager felt that the course had a positive effect on students' ability to apply theory to practical lessons. The way students used the online course, for pre-learning concepts and vocabulary, as a way to keep up with the class, as a review and assessment tool made a difference to their overall retention of vocabulary and thus their ability to discuss this with understanding in the practical classroom. Building blended courses that are able to be used in different ways for different learners is valuable for increasing learning.

## Conclusion

This study set out to determine how a blended course, with an online component focussing on course essential vocabulary affected students. The feedback from students, the tutor and program manager showed that they appreciated the flexibility and the strong links between the vocabulary and concepts in the online course, and the textbook, workbook and lessons. The tutor / program manager reported that it had a positive effect on students' ability to link theory and practice. One problem identified, in the case of

two participants, was a lack of engagement with the course, which they could not explain. Further study in this area and its relationship with blended learning may help explain this. The question of direct instruction or mastery as opposed to constructivism as a guiding theory in online course design and blended learning was also raised in this study. I would like to explore this further, perhaps in a larger scale study in other vocational learning areas where professional practice is an important part of study.

## References

- Bahrnick, H. P. & Phelps, E. (1987). Retention of Spanish vocabulary over eight years. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 13, 344-349.
- Brown, M. (2008). *Interview with beauty therapy students*. Waikato Institute of Technology: Unpublished manuscript.
- Brown, M. (2008). Interview with beauty therapy tutor/ program manager. Waikato Institute of Technology: Unpublished manuscript.
- Clark, R. E. (1989). When teaching kills learning: Research on mathematics. In H. N. Mandl, N. Bennet, E. de Corte, & H. F. Freidrich (Eds.), *Learning and instruction: European research in an international context*. (Vol. 2, pp. 1-22). London: Pergamon.
- Cohen, K., Manion, L., & Morrison, L. (2000). *Research methods in education*. U.K. Routledge.
- Gunn, C. Harper, M. (2007). Using e-learning to transform large class teaching. In M. Bullen & D. Janes (Eds), *Making the transition to e-learning, strategies and issues*. (pp.141-152). Pennsylvania: Information Science Publishing. <https://doi.org/10.4018/978-1-59140-950-2.ch009>
- Kelly, O. (2007). Moving to blended delivery in a polytechnic: Shifting the mindset of faculty and institutions. In M. Bullen & D. Janes (Eds). *Making the transition to e-learning: Strategies and issues*. (pp.35-45). Pennsylvania: Information Science Publishing.
- Kirschner, P. A., Sweller, J., & Clark, R.E. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential and inquiry-based teaching. *Educational Psychologist*, 41(2), 75-86. [https://doi.org/10.1207/s15326985ep4102\\_1](https://doi.org/10.1207/s15326985ep4102_1)
- Klahr, D., & Nigam, M. (2004). The equivalence of learning paths in early science instruction: Effects of direct instruction and discovery learning. *Psychological Science*, 15, 661-667.
- Ko, S. & Rossen, S. (2004). *Teaching online: A practical guide*. New York: Houghton Mifflin.
- Lefrancois, G. R. (1997). *Psychology for teachers* (9th ed). Belmont, CA: Wadsworth.
- Mayer, R. (2004). Should there be a three-strikes rule against pure discovery learning? The case for guided methods of instruction. *American Psychologist*, 59, 14-19. <https://doi.org/10.1037/0003-066X.59.1.14>
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139524759>

**Author:** Melanie Brown, Wintec, Private Bag 3036, Waikato Mail Centre, Hamilton 3240. Email: [melanie.brown@wintec.ac.nz](mailto:melanie.brown@wintec.ac.nz)

**Please cite as:** Brown, M.C. (2008). Beauty and blended learning: E-learning in vocational programs. In *Hello! Where are you in the landscape of educational technology? Proceedings ascilite Melbourne 2008*. <https://doi.org/10.14742/apubs.2008.2529>

Copyright 2008 Melanie Brown

The author assigns to ascilite and educational non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The author also grants a non-exclusive licence to ascilite to publish this document on the ascilite web site and in other formats for *Proceedings ascilite Melbourne 2008*. Any other use is prohibited without the express permission of the author.