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Chinese Learners’ Perceptions of Blended Learning in a Hospitality and Tourism Management Program.

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Chinese Learners’ Perceptions of Blended Learning in a Hospitality and Tourism Management Program.

Abstract

A Confucian tradition still permeates the delivery of higher education in Greater China, leading to passive learning and a teacher-centred approach. This paper describes how one hospitality course from a Hong Kong university was transformed into a student-centred, blended learning programme using independent and group learning methods to engage and motivate students, and to evaluate the success of this approach. The study suggests Chinese students value the active learning approach, but that changes to teaching and learning methods need to be introduced over time, and across the whole curriculum, to become acceptable to most students.

Keywords:

Active Learning, Blended Learning, Wikibook, Hospitality Education, Hong Kong
Chinese Learners’ Perceptions of Blended Learning in a Hospitality and Tourism Management Program.

Introduction

A Confucian tradition of 2,500 years has had a tremendous impact on the way higher education is conducted today in Greater China and much of North Asia. Scholars are divided as to whether this is a positive influence which aids learning and development, (Biggs, 1996; Ryan & Louie, 2005) or a negative effect that inhibits students and encourages a passive learning approach (Brennan & Durovic, 2005; Xu, 2005). As an ethical, social, and philosophical framework, Confucianism strongly influences society and culture as well as its educational system and values. Asian countries with a Confucian Heritage Culture (CHC) – such as China, Hong Kong, Vietnam, Singapore, Korea and Japan – generally focus on knowledge acquisition rather than creative and critical thinking, on memorization rather than application and evaluation, on teacher-centred learning rather than active, student-centred learning, and this may limit to some degree the development of students studying applied programmes such as hospitality and tourism management.

Additionally, in the education world as a whole, teachers are seen as the centre of learning, and the focus of the education process – dispensing knowledge to students, the ‘receptacles’ of learning (Tu, 2001). This is especially true in much of higher education, and particularly in the Asian context. Yet Ryan and Louie (2007) suggest there is a Confucian / Western dichotomy, and that we need to be careful not to stereotype Confucian or Chinese learning models. Nevertheless, the expectations and requirements of students everywhere are changing, and there is a growing recognition that new ways of learning and teaching are required. However, the ways teachers make the transition to more learner-centred and
participative ways of learning can be a slow and painful process. There is a certain reticence to change, and an underlying fear of getting things wrong and making mistakes, plus the challenge of the academic workload. These can have a stifling effect on innovation, especially in teaching. Yet, when we try new models and ways of teaching it can be both liberating and satisfying.

The research questions this study addresses are: 1) Can we successfully use Western theories of learning to redesign a course for students from a CHC? 2) Can we apply established theories of learning design and assessment to a traditional higher education course? 3) Can we identify a particular mix of blended learning to achieve better outcomes than a traditional course? This paper describes how these questions were addressed through a pilot study of one hospitality subject in a Hong Kong university. The course chosen was a Higher Diploma in Hotel and Tourism Management subject titled, “Staffing and Supervision in the Tourism and Hospitality Industry.” The aim was to engage and motivate students by transforming the course into a blended learning programme using pre-class tasks, problem-based learning tutorials and a peer-assessed group Wikibook. The redevelopment of the course was based on Biggs’ SOLO (Structure of the Observed Learning Outcome) Taxonomy (Biggs, 1999; Biggs & Collis, 1982) which provides a systematic way to define and evaluate learning outcomes and develop ‘deep’ rather than ‘surface’ learning. The course was redesigned with Chickering and Gamson’s (1991) philosophy of the ‘Seven Principles for Undergraduate Learning’ underpinning it. These principles are to: encourage contact between students and faculty, develop reciprocity and cooperation among students, encourage active learning, give prompt feedback, emphasize time on task, communicate high expectations, and respect diverse talents and ways of learning. The course design also adopted a social constructivist learning approach, which encourages students to constantly assess how their learning activities help them gain understanding.
The students were Hong Kong Chinese, the majority of whom received a fairly passive and teacher-led learning experience in secondary school. Their reading and written English levels were quite high, but their oral skills and confidence in expressing themselves verbally was often lacking. The majority had little experience of the hospitality industry, although some would have worked part-time in food outlets or restaurants. The course aimed to examine various ways of applying human resources theories into practice in the service industry, with particular application to the characteristics of the tourism and hotel industry. The previous course design used multiple-choice tests and formal examination for around 70 percent of the assessment. New ways to help students work together to study, discuss and apply solutions to human resources issues were needed, so a number of alternative continuous assessment / formative assessment tools that would help develop deeper learning were designed. The new assessment tools were the drivers for the course and aimed to do five things:

1. Provide more formative feedback to students to help their learning;
2. Motivate students to do more preparation for the lectures and tutorials;
3. Prepare them to contribute more usefully in lectures and tutorials, and in the process learn and apply more effectively;
4. Encourage them to work together and collaborate in teams;
5. Help them to analyse and evaluate the work and contribution of other students, and in doing so, learn from their classmates.

The overall assessment tools included four elements as shown in figure 1 below:

**INSERT FIGURE 1 HERE**

Students were asked to undertake four key activities. 1) **Pre-class task.** Students were required to complete ten graded pre-class tasks or activities over a ten-week period, worth 15% of the total mark. The pre-class tasks focused on students’ ability to review information,
complete an activity and present their ideas and opinions clearly on-line. Questions are assigned randomly by the learning management system (WebCT) and student submissions had to be completed each week before the lecture. This assessment was an integral part of the continuous assessment for the subject and was really a way to help students prepare for the lecture and tutorial – a carrot and stick approach – as most students would probably not attempt this activity unless there was a mark attached. **2) Tutorial Tasks.** In ten tutorials, students participated in collaborative team activities to complete a task or activity based on a hospitality staffing and supervision situation or problem. The activities include group discussions, case studies, games, role-play and oral presentations. Each output, including class participation, was graded, and this contributed to 30% of the overall marks for the subject. **3) An Online Group Project.** The project was undertaken using a Wikibook – part of Wikipedia’s portfolio or collaborative online tools. Students worked in teams of four to five people to examine a staffing and supervision issue, discuss and contribute to the development of an interim project report, and agree and prepare an online presentation of their project by using the Wikibook (see Figure 2 below). **4) Peer assessment.** Each team project was assessed by other teams in the same tutorial (5%) and also graded by the teacher (5%). An individual peer review of each student’s contribution to their own team (5%) was made, and a grade for each student was finalized.

**INSERT FIGURE 2 HERE**

**Literature Review**

According to current research, blended or ‘hybrid’ learning in higher education is defined as learning that is facilitated by the effective combination of different modes of delivery, models of teaching and styles of learning, and with transparent communication amongst all parties involved on a course (Heinze & Procter, 2004). Blended learning can
consist of classroom work supplemented by online activity or as a replacement for classroom activity. As teachers integrate technology into their face-to-face teaching practices, the best of both types of instruction are combined to enhance the learning experience of the student. However, some academics see ‘blended learning’ as a misnomer, because learning, from the perspective of the learner, is rarely, if ever, the subject of blended learning (Oliver & Trigwell, 2005) and what is actually happening are different forms of instruction, teaching, or at best, pedagogies. The vast majority of research shows that blended approaches enhance learning, improve student satisfaction and produces deep learning and better learning outcomes (Cottrell & Robinson, 2003; Dowling, Godfrey & Gyles, 2003; Garrison & Kanuka, 2004). In contrast to this, Johnson (2002) concluded that accessibility to course content and connectivity with students increased in the hybrid / blended format, while no differences were found in terms of effectiveness of instruction. Results from a study by Priluck (2004) showed that students in the traditional course were more satisfied with their learning experiences than those in a hybrid course. For most students, their main purpose in using online or blended learning is to gain information, complete an online activity, communicate with their teacher and fellow students, and receive feedback and grades.

The structure of any course is central to its successful implementation, and Biggs (1999 & 2003) stressed the importance of Constructive Alignment – the way in which teachers ensure that their learning outcomes and assessment criteria are in harmony. It focuses on how students construct meaning from what they do to learn, and how the teacher aligns the planned learning activities with the learning outcomes. Most blended learning programmes recognise the importance of clear and measurable learning outcomes in order to ensure learning has taken place. Deep and Surface are two approaches to study elaborated by Ramsden (1992), and Entwistle (1981) among others.
Universities in North and East Asia tend to favour traditional teaching approaches, with the teacher central to the learning, which often leads to more passive or surface learning (Xu, 2005). Using Western theories of learning to redesign a course for students from a CHC is an ongoing challenge for educators. How do we retain the best of the East to blend with Western models and achieve our learning goals? It has been found that a Chinese collectivist mentality strongly supports cooperation and that Chinese learners/workers best perform in groups. Students in Asia are naturally ‘net-workers’ and understand the importance of ‘Guanxi’ which is a blend of ‘connections’ and ‘relationships.’ Oxford and Burry-Stock (1995) found that Chinese and Japanese are concrete-sequential learners, and use a variety of strategies such as memorization, planning, analysis, sequenced repetition, detailed outlines and lists, structured review – all of which are positive aspects of learning. We need to build on these strengths and somehow synthesize the Western approach of exploration, participation, problem-solving and self-learning. To reduce teacher-student style conflicts, some researchers advocate teaching and learning styles be matched (Charkins et al, 1985; Griggs & Dunn, 1984; Smith & Renzulli, 1984). There are many indications (Breen, 1998; Melton, 1990) that bridging the gap between teachers' and learners' perceptions plays an important role in enabling students to maximize their classroom experience.

The course was modelled on a constructivist approach to learning. Constructivism simply means that people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. Constructivism is perhaps best summarized in Wheatley's (1991) problem-centred learning approach which has three components: tasks, groups, and sharing. Wheatley suggests that teachers need to prepare a class in which learning tasks contain a problem which students need to work together collaboratively to solve. The class works on the problem and then comes together to review
what they have discovered – this is how learning is constructed – from various sources, mixed, blended and shared.

To help engage our students in the learning, we introduced a peer review process for review, reflection and group project evaluation. Mowl (1996) considers peer assessment as a form of innovative assessment that can improve the quality of learning. Brown, Rust & Gibbs (1994) suggest that it can involve students not only in the final assessment of student work but also in setting assessment criteria. Race (1995) and others consider that peer assessment gives a sense of ownership, improves motivation and encourages students to take more responsibility for their own learning. Brown, Rust & Gibbs (1994) also suggests that assessment can help students learn from mistakes and practice life-long learning skills such as evaluation, as well as encourage deeper learning.

Peer assessment has received mixed reviews. Teachers as well as students have problems with the concept for a number of reasons. There is a perception that peer assessment is biased, and that students will not be mature or sufficiently objective to provide a fair assessment of their peers. Some examples (Orsmond, Merry & Reiling, 2000) have indicated that students may give a favourable mark to their friends or close associates, and an unfavourable mark to others with whom they have less of a relationship. According to James, McInnis & Devlin (2002), students are sometimes not clear about the learning benefits of group work and peer assessment and are sometimes not properly prepared by teachers to do it well. Some students may perceive little value for their own learning, or may be frustrated by the need to negotiate. Students can also perceive group work as a management tool used by teachers to reduce their assessment load. One of the strongest concerns that students have about group work is the possibility that group assessment practices may not fairly assess individual contributions (James, McInnis & Devlin, 2002). There is also concern that teachers
can overuse group work and peer assessment. According to Juwah (2003) peer assessment comprises of seven stages:

1) Explain rationale of assessment to participants;

2) Engage learners in authentic learning context;

3) Involve learners in setting assessment criteria;

4) Assess learning, grade work, give and receive feedback;

5) Coaching for effective performance;

6) Reflect on own learning experience;

7) Tutor check to ensure quality.

Research Methodology

All 180 students were surveyed about their perceptions of this transformed course through a Mid-term evaluation to identify the areas of concern and gain feedback on various learning methods. Student feedback was generally very positive and included comments such as, ‘I like style of the tutorial, it helps the interaction of students…Pre-task makes me prepare for the class, but is hard work…My team worked well with the online group project and we didn’t have to meet often which saved time…The Wikibook is a good idea, but difficult to learn at first…I think the peer assessment helps us think about the topics more carefully.’

Students were asked to complete a detailed end of course questionnaire on their preferred learning methods which providing a number of recommendations on how they perceived the various learning approaches. After consolidation of the final questionnaire, seven statements on the Pre-class Task, twelve statements on the Tutorial Activities, seven statements on the Wikibook On-line Group Project and seven statements on Course
Assessment Methods were identified as the criterion to evaluate students’ satisfaction of using various course delivery methods. A pilot test was also conducted to ask a group of students to refine the statements and check for any misunderstandings. Comments were received which helped us to improve the presentation of the statements and we changed several English words for clarity. A final instrument was developed with 33 statements measuring the agreeable levels of various learning methods and three statements asking demographic data. A five-point Likert scale was developed ranging from “1” (Strongly Disagree) to “5” (Strongly Agree) to measure the students’ level of satisfaction with the various learning components of the course.

**Findings & Analysis**

At the end of the semester, questionnaires were issued to all students before they left for their summer industry placements, but as many did not return to campus, only 113 (62.8 percent) of valid questionnaires were returned. The Statistical Package for Social Science (SPSS) software was used for data analysis. Descriptive Statistics were used to analyse the raw data collected from the respondents by checking the dispersion including the mean, the range, frequency distribution and the standard deviation, etc. Independent samples t-test was used to test any significant difference by gender, study mode and previous exposure to e-learning. The findings will hopefully be used to understand Hong Kong Chinese students’ perception of blended learning methods and enhance the delivery methods by recommending other possible ways to teach hospitality and tourism subjects in the higher education environment.

It was found that female students were in the majority of the class (75.2%), which reflects the gender ratio in the Hotel & Tourism Management School and in the hospitality industry.
generally. The majority were full time students (83.2%) and more than half of the respondents did not have any exposure to e-learning before taking this course (58.4%).

**Students’ Perception of Various Learning Methods**

A Mean value was used to evaluate the preference of students’ perception of various learning methods including Pre-class Task, Tutorial Activities and the Wikibook On-line Group Project. The overall mean value of seven statements on the Pre-class Task was 3.60, Tutorial Activities was 4.08, Wikibook On-line Group Project was 3.29, Assessment Methods was 3.63 and the overall rating was 3.89. See Table 1.

**INSERT TABLE 1 HERE**

**The Impact of Demographic Factors on Various Learning Methods (N = 113)**

In order to gain a better understanding of the significant differences between these learning and assessment methods to different demographic variables, independent samples t-test was conducted. According to the analysis, two demographic variables including study mode and previous exposure to e-learning seemed to be the influential variables that generated significant differences in the perception of using the Wikibook On-line Group Project, Assessment Methods and Tutorial Activities respectively. Table 2 sets out the impacts of various demographic variables on the learning and assessment methods.

**INSERT TABLE 2 HERE**

Three significant findings emerged in analysing different demographic variables against the learning and assessment methods. Firstly, in the aspect of Study Mode, part-time students scored significantly higher than full-time students in terms of the Wikibook On-line Group Project. Since part-time students with a full time job are less able to arrange much spare time to join others to discuss the group project; the on-line discussion and submission
of the group project was found to be more convenient and suited their learning style. Part-time students agreed they were satisfied with this type of active learning method because it really fitted into their tight study schedule. According to Garrison & Kanuka (2004), Internet information and communication tools provide flexibility of time and place and the reality of unbounded educational discourse.

Secondly, significant differences were also found in Study Mode towards the perception on Assessment methods as part-time students gave a higher rating for peer assessment. The reasons behind this might simply be that full-time students are much more concerned about their scores and gave a lower grade to others in order to receive a higher mark themselves. Besides, part-time students have a wider exposure to the industry and understood that innovative assessment methods are usually more realistic and relevant. Students develop a better understanding of how their specific skills and knowledge can be applied both inside and outside the academic environment and it is regarded as a possible strategy for facilitating a “deep” rather than a “surface” approach to learning (Boyd & Cowan, 1985; Ramsden, 1992).

Thirdly, significant differences were found in the demographic variable of Previous Exposure to e-learning, germane to the active learning method used for Tutorial Activities. Those students who had previous exposure to e-learning scored the highest mean value in agreeing that Tutorial Activities were the most preferable learning method. This indicated that students who had previous exposure to e-learning seemed to favour the face-to-face learning method more than using on-line learning tools. In addition, different types of tutorial activities, including group discussions, case studies, games, role play and oral presentations seemed to be more attractive and to motivate their interest in learning.
**Recommendations**

The research provides a number of recommendations and ideas for consideration by teachers in higher education, or trainers in the hospitality industry. These include: 1) **Synthesize Western and Confucian methods.** We need to recognise the strengths and weaknesses of both the Confucian learning approach and Western constructivist approaches to learning, and try to maximize and synthesize the best aspects of both educational approaches (Ryan & Louie, 2007). 2) **Use a variety of methods.** Using a variety of active learning methods in a course can help both full-time and part-time students by providing more flexibility and convenience. Online group projects with peer assessment using media such as a class Wiki or Wikibook can assist with the process and provide both assessment as well as a broader learning experience. 3) **Use interactive methods.** More face-to-face interactive discussions or problem-based learning activities are needed to stimulate students’ learning. 4) **Use role-play exercises.** More role-play exercises are helpful for students to aid their understanding of the subject. 5) **Use games and simulations.** More games will make tutorials more interesting. 6) **Give immediate feedback to students.** Immediate feedback can enhance students’ learning processes.

Our study suggests that Western theories of learning can be used to successfully redesign a course for students from a Chinese Heritage Culture, and that Constructivist learning design and assessment can be applied to a traditional higher educational course. Second, it seems that a particular mix of blended learning methods will achieve better outcomes than a traditional course, as students gave the mean value of 3.89 as an overall rating. This indicates that overall, students have a positive view of blended learning methods as seen in their high rating of all methods used in the course.
Conclusion

The findings of this study should be viewed as a preliminary step to acknowledge the perception of Chinese students’ satisfaction with, and preferences on, blended learning methods in a university hospitality and tourism management course. The study suggests that changes to teaching and learning methods need to be introduced over time and across the whole curriculum in order to become acceptable to most students. Other insights from the teachers concerned, but not elaborated here, was that there are economies of scale for certain learning activities that blended learning can help with, such as using a grade book and asynchronous discussion. The Wikibook is also an innovative way to encourage students to work together on a group project, and where many, rather than few, can read and learn from the work of their peers. However, with larger classes it is very time consuming to do regular marking and give formative feedback to students.

Practical ways to apply blended learning in the context of a traditional university would be to ensure that students understand what is required of them, introduce the methods steadily, ensure that teachers provide good quality, and prompt feedback, and encourage all students to participate. For the teacher to get the best from their students there is a need to create an environment for learning that is founded on good teaching practice whether it is in the classroom or online. Creating a supportive environment is essential, as well as ensuring challenging and meaningful interactions between students, and between the tutor and the students (Garrison & Anderson, 2003). It is believed that students gained higher self-esteem and self-confidence through taking part in a more participative course, and we need to consider our role of helping students to become independent learners by providing the framework and infrastructure within which they can develop and learn. Designing creative, valid, and stimulating learning activities is demanding and challenging, but needs to happen
if students are going to benefit from their learning activities (Jonassen & Rohrer-Murphy, 1999). Further research on applying these methods to more and varied subjects, and to expand the survey to a larger number of students is recommended. This is however, a positive example of how to re-engineer a course from a traditional passive learning mode to an active learning mode using blended learning methods.

References


Entwistle N. (1981). *Styles of Learning and Teaching; an integrated outline of educational psychology for students, teachers and lecturers*. Chichester: John Wiley (0 471 10013 7).


FIGURES FOR INSERTION IN TEXT

Figure 1: The Assessment Tool

Figure 2: Home page of WikiBook online project
Table 1: *Mean Value of all Statements under Various Learning Methods from the Perception of the Students of the course (N = 113)*

<table>
<thead>
<tr>
<th>Statements on Various Learning Methods</th>
<th>Mean Value</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-class Task</strong></td>
<td>3.60</td>
<td>0.60</td>
</tr>
<tr>
<td>Pre tasks helped me to understand the contents of this subject.</td>
<td>3.72</td>
<td>0.74</td>
</tr>
<tr>
<td>Pre-tasks inspired my interest in learning this subject.</td>
<td>3.47</td>
<td>0.80</td>
</tr>
<tr>
<td>Pre-tasks were meaningful activities.</td>
<td>3.56</td>
<td>0.82</td>
</tr>
<tr>
<td>Pre-tasks were useful and informative.</td>
<td>3.61</td>
<td>0.75</td>
</tr>
<tr>
<td>Pre-tasks pushed me to work harder and be well prepared for the lessons.</td>
<td>3.64</td>
<td>0.78</td>
</tr>
<tr>
<td>Time allocation and arrangement for pre-tasks was appropriate.</td>
<td>3.65</td>
<td>0.69</td>
</tr>
<tr>
<td>Workload for pre-tasks was appropriate.</td>
<td>3.57</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>Tutorials</strong></td>
<td>4.08</td>
<td>0.50</td>
</tr>
<tr>
<td>Tutorials helped me to understand the contents of this subject.</td>
<td>4.14</td>
<td>0.65</td>
</tr>
<tr>
<td>Tutorials were interesting.</td>
<td>4.08</td>
<td>0.77</td>
</tr>
<tr>
<td>Tutorials were interactive.</td>
<td>4.31</td>
<td>0.63</td>
</tr>
<tr>
<td>Tutorials were easy to understand.</td>
<td>4.12</td>
<td>0.64</td>
</tr>
<tr>
<td>Tutorials were meaningful activities.</td>
<td>4.17</td>
<td>0.75</td>
</tr>
<tr>
<td>Tutorials helped me to share practical experiences and ideas with group mates.</td>
<td>4.12</td>
<td>0.68</td>
</tr>
<tr>
<td>Tutorials were able to give me more opportunities for teamwork.</td>
<td>4.12</td>
<td>0.66</td>
</tr>
<tr>
<td>Tutorials motivated students to discuss and speak in class</td>
<td>3.99</td>
<td>0.66</td>
</tr>
<tr>
<td>Tutorials helped students to understand the theory easily.</td>
<td>4.01</td>
<td>0.65</td>
</tr>
<tr>
<td>Time allocation and arrangement for tutorials were appropriate.</td>
<td>3.96</td>
<td>0.71</td>
</tr>
<tr>
<td>Workload for tutorials was appropriate.</td>
<td>3.92</td>
<td>0.72</td>
</tr>
<tr>
<td>Guidance from tutors was enough.</td>
<td>4.04</td>
<td>0.63</td>
</tr>
<tr>
<td><strong>Wikibook Online Project</strong></td>
<td>3.29</td>
<td>0.71</td>
</tr>
<tr>
<td>Online projects were creative.</td>
<td>3.35</td>
<td>0.83</td>
</tr>
<tr>
<td>Online projects were more interactive and I was able to have feedback from tutors and group mates more frequently.</td>
<td>3.27</td>
<td>0.84</td>
</tr>
<tr>
<td>I felt comfortable in using Wikibook.</td>
<td>3.15</td>
<td>0.96</td>
</tr>
<tr>
<td>I felt it was convenient to use the Wikibook.</td>
<td>3.10</td>
<td>1.00</td>
</tr>
<tr>
<td>Time allocation and arrangements for the Wikibook project were appropriate.</td>
<td>3.42</td>
<td>0.87</td>
</tr>
<tr>
<td>Workload for the Wikibook project was appropriate.</td>
<td>3.27</td>
<td>0.86</td>
</tr>
<tr>
<td>Guidance from tutors was enough.</td>
<td>3.50</td>
<td>0.88</td>
</tr>
<tr>
<td><strong>Course Assessment Methods</strong></td>
<td>3.63</td>
<td>0.50</td>
</tr>
<tr>
<td>The assessment items undertaken in this subject were clearly related to the subject contents.</td>
<td>3.73</td>
<td>0.59</td>
</tr>
<tr>
<td>The assessment items in this subject support my learning.</td>
<td>3.76</td>
<td>0.60</td>
</tr>
<tr>
<td>The weighting of the assessment items were well allocated.</td>
<td>3.67</td>
<td>0.64</td>
</tr>
<tr>
<td>The peer assessment helped me to learn from other group projects.</td>
<td>3.60</td>
<td>0.70</td>
</tr>
<tr>
<td>The peer assessment within the team was fair to me and other students.</td>
<td>3.50</td>
<td>0.68</td>
</tr>
<tr>
<td>The peer assessment within the same tutorial session was fair to me and other students.</td>
<td>3.59</td>
<td>0.78</td>
</tr>
</tbody>
</table>
The peer assessment was a good way of assessing the project. | 3.59 | 0.70
Overall Rating | 3.89 | 0.56

Remarks: Mean value on a 5-point Likert scale, where “1” indicated “Strongly Disagree” and “5” indicated “Strongly Agree”.

Table 2: Summary of Students’ Demographic Impacts on their Perception of Different Types of Learning and Assessment Methods Identified by Independent-samples t-test Analysis (N = 113)

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Valid N</th>
<th>Pre-class Tasks</th>
<th>Tutorial Activities</th>
<th>Wikibook Project</th>
<th>Assessment Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean F-value</td>
<td>Mean F-value</td>
<td>Mean F-value</td>
<td>Mean F-value</td>
<td>Mean F-value</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>28</td>
<td>3.61</td>
<td>4.21</td>
<td>3.48</td>
<td>3.67</td>
</tr>
<tr>
<td>Female</td>
<td>85</td>
<td>3.60</td>
<td>4.04</td>
<td>3.23</td>
<td>3.62</td>
</tr>
</tbody>
</table>

No significant difference was found in students’ gender on their perception of different types of learning and assessment methods.

<table>
<thead>
<tr>
<th>Study Mode</th>
<th>0.13</th>
<th>0.06</th>
<th>0.04*</th>
<th>1.48*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time</td>
<td>94</td>
<td>3.56</td>
<td>4.07</td>
<td>3.18</td>
</tr>
<tr>
<td>Part Time</td>
<td>19</td>
<td>3.82</td>
<td>4.13</td>
<td>3.87</td>
</tr>
</tbody>
</table>

No significant difference was found in the impact of study mode towards Pre-class tasks and Tutorial activities. Significant difference was found in the impact of study mode towards Wikibook and Assessment methods. Part-time students were more satisfied with using the Wikibook project and innovative assessment methods.

<table>
<thead>
<tr>
<th>Previous Exposure to E-learning</th>
<th>0.15</th>
<th>0.28*</th>
<th>0.01</th>
<th>0.74</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>47</td>
<td>3.71</td>
<td>4.23</td>
<td>3.29</td>
</tr>
<tr>
<td>No</td>
<td>66</td>
<td>3.52</td>
<td>3.97</td>
<td>3.30</td>
</tr>
</tbody>
</table>

No significant difference was found in students’ perception with previous exposure to e-learning towards Pre-class tasks, Wikibook Project and Assessment methods. Significant difference was only found in Tutorial activities in which students with previous exposure to e-learning preferred to have Tutorial activities rather than those without exposure to e-learning.

Remarks:
1) * Indicates significance difference level < 0.05 by using LSD test.
2) Mean value on a 5-point Likert scale, where “1” indicated “Strongly Disagree” and “5” indicated “Strongly Agree”.

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Remarkable