Exploring the Voice of University Students for E-learning

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Abstract: An experiment was designed to explore the university students' voice about e-learning. A unit of pilot course was designed and uploaded on the web. The students learned the unit lesson on the web. After one week, a questionnaire and a test were applied to collect data. The results showed that 38 out of 53 students viewed the lesson on web. They were satisfied with the freedom to choose time and place for learning. But the students suggested that face-to-face interaction is necessary for learning. The results implied that e-learning would be an excellent approach for learning, if it could create meaningful asynchronous learning environment to enhance learning.

Key words: university students, e-learning, students' voice

1 Introduction

As the Internet technology promises an increasing potential for learning, the e-learning schools are flourishing like bamboo shoots after a spring rain. An internet-based e-learning system offers many benefits over traditional learning environments. It provides a time, class size, and geographical location independent learning platform to students. Under this scenario, it seems that the e-learning system will supersede the traditional learning.

However, the readiness of a school to initiate an e-learning course should be assessed in many perspectives. A marketing perspective suggests that students are the ultimate customers. We have to explore the students' voice.

2 Problem Formation

Although the differences in learning between traditional classrooms and online courses are not significant [1], many researchers found a wide range of differences in students' access to online content [2]. Many studies of online populations have demonstrated the relationship between high school grade point average and retention [3-4]. Since e-learning provided a time independent learning platform, students need not take the course at the scheduled time. Will they take the course and at what time will the students choose to learn? This is the first problem on planning e-learning.

Learning process needs practice repeatedly, especially for new terminology. Researchers [5] tracked students' behavior and found that the time spent on task and frequency of participation was important for successful online learning. In classroom, students have the chance to practice many times under the guidance of teacher. When they have the freedom to determine the time of learning, they also have the freedom to determine the times of practice. How many times will the students practice and how is the learning effect? This is the second problem.

Marketing literature has generally treated perceived service quality and customer satisfaction as related but distinct [6]. While other research appears to indicate that perceived service quality is an antecedent of customer satisfaction, debate on the causal direction between these two constructs continues [7]. Bitner [8] pointed that perceived service quality is a long-term attitude, whereas customer satisfaction is a transaction-specific judgment. With perceived service quality and

customer satisfaction being two distinct constructs, they should be explored. This is the third problem.

3 Problem Solution

An experiment was designed to explore the students' opinion about e-learning. Our subjects were 53 students who choose medical terminology as an elective subject. Medical terminology is a course introducing frequently used terminology in hospitals. The course was designed into 16 units. Each unit introduces a category of terminology, such as the departments of hospital, the symptoms, the diagnosis, the anatomical terms, the management of hospital, et al. Further, in each unit there are several prefixes or suffixes as supplement.

As the aim is exploring the voice of students, a unit of pilot course was uploaded on the web. This unit included the frequently used terms in a ward of a hospital and some suffixes. The power point file was created. Each term with its Chinese meaning was arranged in a page. The software AniCam was applied to record the file and pronunciation for each term. For the limitation of space, this unit course was divided into 3 files.

The students were asked to learn this unit lesson through web. After one week, a questionnaire and a test were applied to collect data. The questionnaire included learning process, perceived satisfaction, and course evaluation. Open questions were also applied to explore the opinion about influencing factors of satisfaction and suggestions. The test included translation of 20 medical terminologies.

3.1 The number of students who took the course and at what time they choose to learn

The results are shown as table 1. There were 41 students completed the questionnaire and three of them said they didn't view any file. Obviously, there were 15 students didn't take this course. Within these 38 students, most of them (86.8%) took this lesson not at the scheduled time.

3.2 The learning process and the effect

For understanding the learning process, the students were asked how many times reviewed for each file. The results as table 1 showed that only 13 students reviewed the first file and 10 students reviewed the second file. As to the 3rd file, only 4 students viewed once or two times. Obviously, most of the students viewed at the unit lesson only once. It is not surprising that less than half of the students evaluated the effect of learning as good.

Table 1. Frequency of variables

Variables	n	%
The time of learning		
As scheduled	5	13.2
Other than scheduled	33	86.8
How many files		
None	3	7.3
One	9	22.0
Two	20	48.8
Three	9	21.9
How many times		
1st file		
0	5	13.2
1	20	52.6
2	9	23.7
3	3	7.9
4	1	2.6
2nd file		
0	8	21.1
1	20	52.6
2	8	21.1
3	1	2.6
4	1	2.6
3rd file		
0	28	73.7
1	6	15.8
2	2	5.3
3	1	2.6
4	1	2.6
The effect of learning		
Good	15	39.5
Bad	24	60.5
Degree of Satisfaction		
Satisfied	27	71.1
Unsatisfied	11	28.9
The clearness of materials		
Very clear	6	15.8
Clear	27	71.1
Unclear	5	13.2
The quantity of this unit materials		
Too much	6	15.8
Proper	26	68.4
Not too much	6	15.8
The convenience of using internet		
Very convenience	12	31.6
Convenience	23	60.5
Inconvenience	2	5.3
Very inconvenience	1	2.6
Willingness		
Yes	26	68.4
No	12	31.6
Much like in classroom		
Yes	22	57.9
No	16	42.1

The students were asked to evaluate the quality of this unit course material and their satisfaction for the web learning. It was found that most of the students (71.1%) were satisfied with this web learning. The satisfied students indicated that they were satisfied with the freedom to choose time and place for learning. While the unsatisfied students expressed that the freedom produced ineffective learning and laziness.

The test was transferred to grade. If a terminology were translated into Chinese correctly, the grade would be increased by one. And the grade was equal to the number of correctly translated terminologies. The box plots were applied to scrutinize the relation between grade and times of learning for each file. Results were shown as figure 1 to 3. For all the 3 files, most of the students viewed the unit flies not more than two times. The comparison of grade between once and twice showed that twice was greater than once.
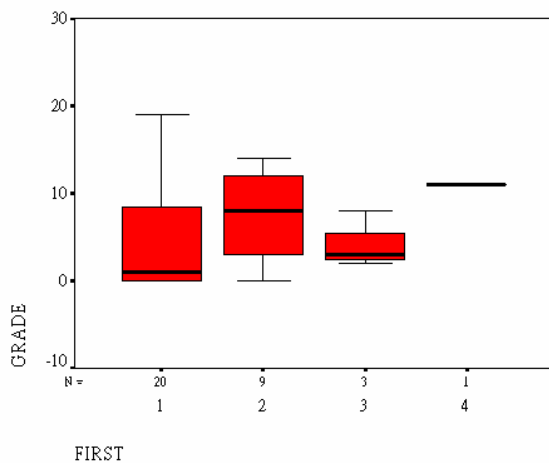
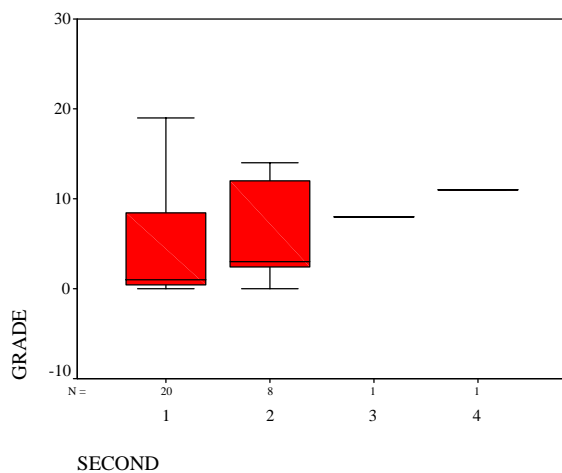

Fig 1. Grade and times of leaning for the 1st file

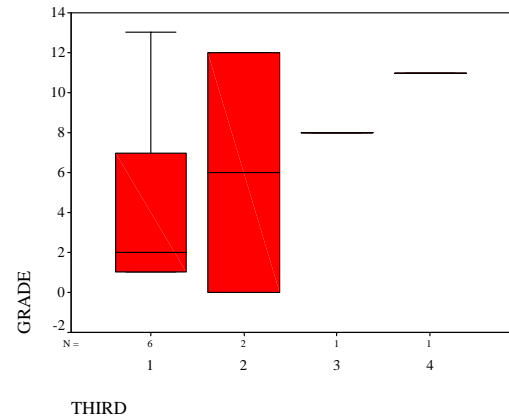Fig 2. Grade and times of leaning for the 2nd file

Fig 3. Grade and times of leaning for the 3rd file

3.3 perceived quality and satisfaction

As table1, most of the students evaluated the material of the unit lesson as clear and proper in quantity. Also, most of the students felt convenient in using internet. But, there were still 3 students who felt inconvenient or very inconvenient in using Internet. The most controversial finding is that more than half of the students showed their willingness to learn through web, and more than half of the same students would rather take the lesson in the classroom. There were 26 students who showed the willingness to learn through website. Out of these 26 students, there were 10 students who showed the willingness to learn in classroom. This finding indicated that students were not certain which type of learning was suitable for them.

Furthermore, the students were classified into satisfied and unsatisfied groups, and the bar-charts were applied to show the evaluation of this unit material between these two groups. The results were shown as figure 4 to 5. The satisfied group evaluated the materials as clear or very clear. While in the unsatisfied group, small portion of students evaluated the material as unclear. Most of the students evaluated the quantity as proper or not too much in both groups.

The students suggested that the quality of course materials needed to modify in greater voice and slower speed. And they suggested that repeat was necessary in this course design.

3.4 Other suggestions

There were some students expressed lacking face-to-face interactions on e-learning and without the atmosphere of learning together was the main factor influencing effectiveness. Most of all, some students told that they had no computers, and some said that they couldn't operate on the website.
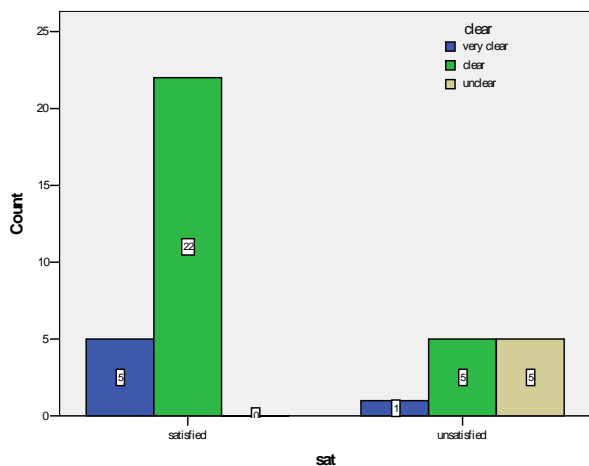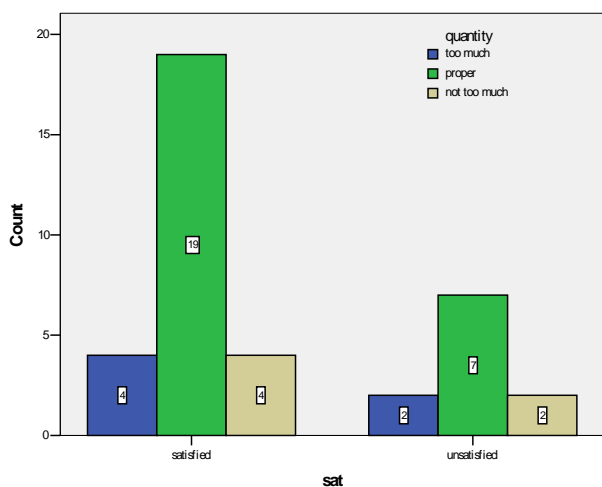
Fig. 4 The clearness of material

Fig. 5 The quantity of materials

4 Conclusion

We explored the voice of students to assess the readiness of e-learning. Experimentation was designed for students to have the experience of e-learning. Then, they were asked to express their feelings and suggestions. The results will be discussed below.

The primary structural difference between traditional learning and e-learning is the higher level of learner control [10]. Under the traditional learning environment, students are generally comfortable with learning in classroom. The experience of e-learning is a drastic change for students to adopt. The control and responsibility is transferred from teacher to students. Students have to change their habit of learning. Our findings indicated that the students were not ready for taking the responsibility of learning. For some students, the freedom from time or place constraint made them satisfied with learning. While other students abuse the freedom from taking the course.

The e-learning allowed the students to have the control of accessing the learning material, and customizing the learning material. They could view once or review many times at their will. Our learning material was designed for each terminology repeated twice. If it is not enough for retention, students might review more times at their will. In our study, most of the students took a view at the learning material only once. And they suggested repeat more times was necessary for the course design. This finding showed that students were not yet ready to take responsibility for learning.

Our findings suggested that computer-mediated environments were still foreign to the students. The students reported inconvenience owing to having no computer or no ability to operate. The low level of satisfaction with the experience was the result. Maki et al. indicated that the students in the traditional classroom reported higher scores on satisfaction [11]. Our results revealed the key reason and suggested that students have to be equipped or trained before learning on web.

Researchers suggested that if adequate ICT systems and technological/methodological supports are provided to the key stakeholders of the e-learning activities, there is the possibility to create a positive learning environment [9]. It needs further consideration. We found that students cared about the atmosphere of learning together. They complained that the learning was ineffective without the immediate face-to-face interactions. It indicated that a good e-learning environment should be established allowing interaction and encounters with other participants.

Furthermore, researchers [10] found that, there are no significant differences in performance between traditional and web learning and the latter leads to higher reported computer self-efficacy. This encouraging finding suggests that e-learning is an effective procedure to increase the self-efficacy of students. Our controversial findings suggested that students were not certain which type of learning was suitable for them. This is the chance to encourage students adopting e-learning. Through e-learning, students would learn how to take the responsibility and strengthen their self-control.

The results implied that e-learning would be an excellent approach for learning, if it could create meaningful asynchronous learning environment to enhance learning. This study used a single lesson as the unit of analyses; the limited duration of the

treatment may be partially responsible for the lack of inference.

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