

The Usage of E-Learning Material to Support Good Communication with Learners

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Abstract

The focus of this research is to determine whether the exposure to e-learning materials enables students to improve their English. Test scores before and after being exposed to e-learning material have been compared to discover whether there is any appreciable improvement in students' English Language proficiency levels. Students' profiles on the computer-assisted learning are studied to determine the effectiveness with some recommendation for developing better e-learning material especially in blended technology widely used in Malaysian institutions. The paper shows that students learn by doing, not only by sitting in the classroom or listening to a lecture. Furthermore, students learn from failure, because mistakes stimulate questions, and it is only when students have a question that they are receptive to advice. Students learn from stories if delivered on a 'just-in-time' basis, as the remediation of some failure or in answer to students' question.

Keywords: E-Learning material, English language, Learn by doing, Learn from failure, Learn from stories, Just-in-time basis

Introduction

Although there has been much discussion over different methods to teach college students, lectures are not likely to stop being used specially in learning English as a secondary language in a certain country, namely Malaysia. To emphasize particular points, many lectures use electronic material to support their lectures. In the last ten years, lots of applications are available on the market on learning English either for basic or working profession. One factor that this study did not investigate is the effectiveness of the lectures session and the software given to the student. This study focuses more on how the software chosen by the lecturer is one of the good ways to support his or her communication with the student (more towards self-pace learning).

To directly support their teaching function, educators need to develop and deliver courses that are relevant, up-to-date, comprehensive, and meet the needs of the student and the workforce. Electronic media, such as CD-interactive and multimedia, allow the student to experience a blended technology in teaching and learning environment. At the forefront, we must acknowledge that the challenges facing today's learners in K-20 systems also face pre-service and in-service educators,

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and those who prepare educators. Researchers are increasingly calling for learning and professional development approaches that lead to 'Emerging Communities of Practice' (McNabb & McCombs, 2001). The National Academy of Sciences Reports entitled, How People Learn (Bransford, Brown, & Cocking, 1999) make new

approaches to assessment a major priority. Still others argue that using electronic networks for educational purpose causes large disturbances to close-ended nature of twentieth-century classroom practices (Heflich, 2001; Jones, 2001; McNabb, 2001). These disturbances stem from misalignments among curriculum accountability policies that govern learning activities and research practices and policy.

As described by Laurillard (1994), ‘traditional methods of lectures, print, video, audio are narrative media, that require a storyline, that put the educator in the role of storyteller and the learner on the role of listener.’ The storytelling type has served quite effectively for delivery of on-campus; however, it is not the most effective for all categories of knowledge such as constructivism of knowledge. Emerging technologies and the experience of acquired knowledge are needed for students more than the role of listener or reader.

Some believe they can convert an existing subject into interactive learning, which will result in a more effective subject. This expectation is not always realised however, because all they are doing is repackaging the material. Why choose E-learning? A simple question but full of benefits, that a well-designed e-learning environment is the most effective alternative for many educators specially in teaching the children in this decade. Choosing the right media will enhance the capabilities in professionalism and achievement of educators. (Hussain, Jais, & Rahman, 2003). This ‘new’ course is probably no more effective than the original; it may even less effective. It is safer to identify the courses and the electronic media, which truly can be enhanced through the use of an alternative media.

This study is still at the early stage and just a minimal case on the impact of e-learning material on acquisition, improvement and mastery of English language skills by a group of pre-university college students. The focus of this research is to determine whether the exposure to e-learning is the main contributing factor that enables students to improve their English Language. Test scores before and after being exposed to e-learning material mainly to see the ability of the student in sitting the same questions but different layout and also to determine whether there is any appreciable improvement in students’ English Language proficiency levels. Students’ profiles on the usage of various software and application are studied to determine if there are any relative contributions to their learning process possible when learning from stories (just-in-time basis).

The development of e-learning environment that can deliver education and training anytime, anywhere, is now not only feasible but also achievable. Using current and emerging information and communication technologies it is now possible to build the fully on-line institute even in schools. All courses have similar elements, whether they are traditional, synchronous or asynchronous. However, distance education is held to standards that do not necessarily exist in traditional classrooms. Table 1 shows common elements in traditional, synchronous, and asynchronous classes and how they are typically managed.

Table 1: Course elements in traditional, synchronous, and asynchronous classes.
(McFadden, Marsh, & Price 1999)

Course Element	Traditional Classroom Options	Synchronous Course Options	Asynchronous Course Options
Syllabus	Handout	Mailed	Online
Course Calendar	Contained in Syllabus	Mailed	Online
Grade Reporting	Returned or Posted	Mailed	E-mail Attachment

Examina-tions	Paper-pencil, bubble sheets, portfolios	Paper-pencil, bubble sheets, portfolios	CGI forms, portfolios, e-mail correspondence, CGI with instant scoring
Office Hours	Set time and location	Set time and location	Set time or at student's convenience by e-mail
Communi-cations	Before or after class, phone calls, office hours, conferences	Fax, e-mail, 800 number, occasional phone call	e-mail, video conference, chat, threaded discussion
Handouts	Copies distributed in class	Mailed	Online, Download
Resources	Library, Labs	Library, Mailed or CD-ROM	Web page, download, links, interactive components
Lecture Presenta-tion	Didactic, Q&A	Real-time (video conferencing), video tape, compresses video, CD-ROM	Hypertext, streaming audio and video, chat

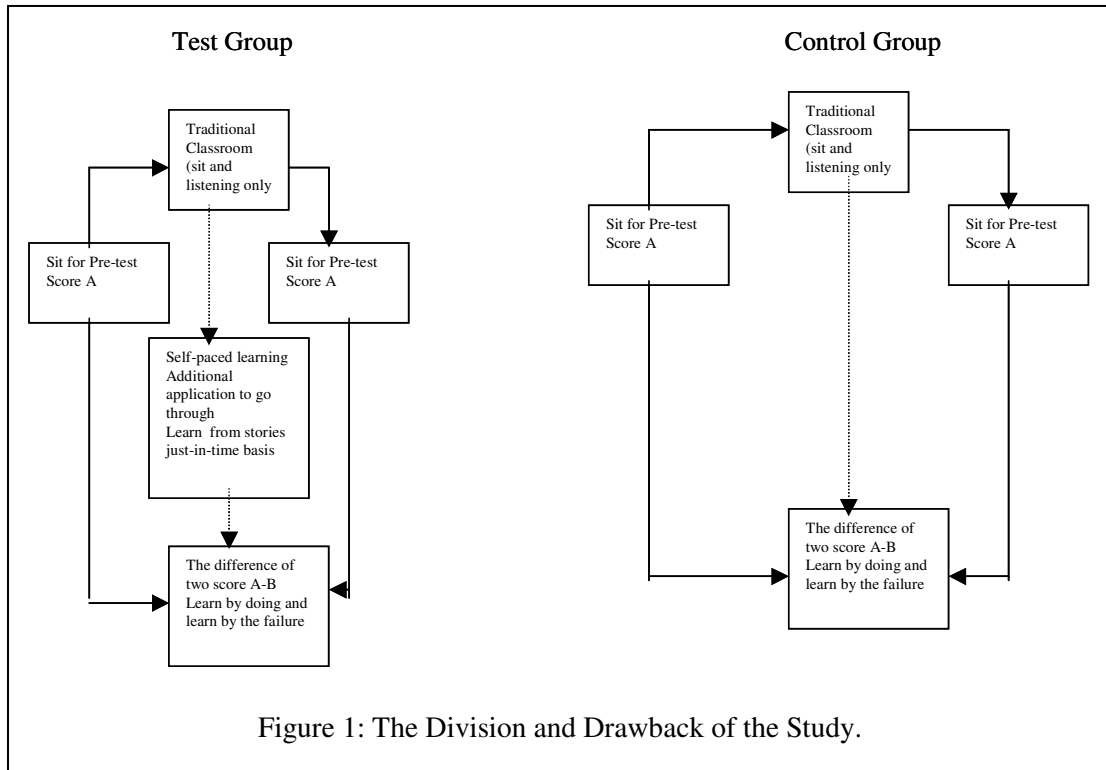
Asynchronous Course Delivery

Asynchronous learning describes a learning event in which people cannot communicate without time delay. Examples are self-paced courses taken via Internet or CD-ROM, videotaped classes, streamed audio or video, Web presentations, question and answer mentoring, online chats and discussion groups and email. The use of new technologies in higher institutions especially in 'blended technology' can be called up instantly, either as material for a lecture, or as a resource for cooperative learning, critical thinking, discussions, question-and-answer sessions, reviews, problem solving, or self-study.

An Experimental on Asynchronous Course Delivery

This study is conducted on a group of 26 students picked randomly from a class of 52 students (These 52 students are chosen due to their result in English as reflected in their *Sijil Pelajaran Malaysia* (Malaysian Certificate Education) result.), and designating the 26 students as the test group while the rest of the class served as a control group. The students used as subjects in this study are students from a private college who are undertaking an extra English Language remedial course for one month in duration. All students from these two groups are asked to sit for an initial English Language Cloze Test (see Appendix A: Pre English Cloze Test). Then, students from the test group are provided with a CD (English courseware) to be used together with normal English Language classes (learn by doing – just –in-time basis) while the student from the control group are not provided with any software but follow the normal English Language classes conducted by the same teacher (just sitting and listening).

In order to keep the scope of the study within manageable bounds, the students use only one course products throughout the study. The application that the test group has to use is "Professor IQ English Plus" developed by Edutech Media of Singapore. It incorporates grammar, sentence construction, tutorial, assessment, passage comprehension, puzzles and examinations. The selection of the software is based on the course content, which complies with the traditional classroom at the same time (just-in-time basis). Therefore, the test group will use it along with the traditional classroom. Figure 1 shows the concept of this study for test and control group



At the end of the course all students from both the test group and control group will sit for an English Language Cloze test similar in quality and structure with the initial test paper but different layout (Appendix B: Post English Cloze Test)

The 26 students in the test group will also be provided with a questionnaire specially prepared for them. The questionnaire will be designed based on the students test results for both initial and final tests will be indicated as well as questions regarding their perceptions or views of the multimedia educational software which are provided for their use. Meanwhile the 26 students in the control group also will be asking the questionnaire given to them. The questionnaire prepared for them also will include the test results for both initial and final tests but not including their perceptions on the e-learning material as the test group.

An Empirical Study of Student Feedback on Asynchronous Course Delivery

The following section discusses the results and conclusion that were drawn from the questionnaire.

Profile of Students

The first question (Question 1: *Do you have a computer at home?*) is to seek the answer to whether the students in the pre-u level have computer at home. The frequency tables (Table 1 and Table 2) show that, indeed, the students have a computer at home. At least 70% of each group has a computer at home. This means 76.9% from the whole class have computer at home. This is due to the government launching scheme 'one pc per house' whereby their parent can use the Employee Provident Fund (EPF – the fund which is collected monthly by the government; 9% comes from the employee and 11% comes from employer) scheme to buy a pc. Having a computer at home has become a common electronic goods at home. This means that most of them can bring the CD or other e-learning materials and review or play it at home and self-paced.

Table 1: Frequency distribution for Test Group for question 1

Test Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
Yes	20	76.9%	20	76.9 %
No	6	23.1%	26	100 %
Total	26	100.0 %		

Table 2: Frequency distribution for Control Group for question 1

Control Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
Yes	20	76.9%	20	76.9 %
No	6	23.1 %	26	100 %
Total	26	100.0 %		

Question 2 (*Do you use computer?*) is to analyze if they have ever used the computer before. As shown in Table 3 and Table 4 the students have used a computer. At this point all the students must have used it either at home or at school. If they don't have it at home they must have used it at least in their institutions. This is due to their programme, which is the Computer Science programme.

Table 3: Frequency distribution for Test Group for question 2

Test Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
Yes	26	100%	26	100 %
No	0	0%	0	100 %
Total	26	100.0 %		

Table 4: Frequency distribution for Control Group for question 2

Control Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
Yes	26	100%	26	100 %
No	0	0 %	0	100 %
Total	26	100.0 %		

For the next question will look at the student average in the computer knowledge and skills. The frequency table shows that all the students in the Test group and control group have at least a basic knowledge of computer skills. This is due to their programme after this course. They all are the pre-u level for Computer Science Programme. The English class they have to sit is due to

their result in SPM (one of the higher level in secondary school). All of them normally get only pass level (grade 7 or 8 out of 8 grades).

Table 5: Frequency distribution for Test Group

Test Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
None	0	0%	0	0%
Beginner	1	3.9%	1	3.9%
Average	21	80.7%	21	84.6%
Good	3	11.5%	25	96.1%
Excellent	1	3.9%	26	100.0 %
Total	26	100.0 %		

Table 6: Frequency distribution for Control Group

Control Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
None	0	0%	0	0%
Beginner	1	3.9%	1	3.9%
Average	21	80.7%	21	84.6%
Good	3	11.5%	25	96.1%
Excellent	1	3.9%	26	100.0 %
Total	26	100.0 %		

Learn by Doing and Learn from Failure

The difference between students' English test scores before and after the exposure to the software is taken and the frequency distribution is shown in Table 7 and 8. Students who are exposed to the multimedia educational software (see Table 7) display higher English Language proficiency than students without the exposure to the software (see Table 8).

The frequency table shows that all the students in the Test group show a marked improvement in their test scores where 80.7 % achieve test score difference of 6 points. Whereas all students in the control group achieve poor result with 65.4% score zero or negative test score difference but they did some improve where they learn from the failure from Pre-Cloze Test because the mistakes have stimulate questions and it has been receptive advice in the traditional class. The frequency Table 5 shows that all the students in the Test Group show a positive improvement in their test scores where 92.3 % achieve test score difference of 5 or 6 points

Table 7: Frequency distribution for Test Group

Test Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
5	3	11.5 %	3	11.5 %
6	21	80.7 %	24	92.3 %
7	1	3.9 %	25	96.2 %
10	1	3.9 %	26	100.0 %
Total	26	100.0 %		

Table 8: Frequency distribution for Control Group

Control Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
-2	1	3.9 %	1	3.9 %
-1	5	19.2 %	6	23.0 %
0	11	42.3 %	17	65.4 %
1	7	26.9 %	24	92.3 %
2	2	7.7 %	26	100.0 %
Total	26	100.0 %		

Learn from Stories – ‘Just-In-Time’ Basis

Learn from the stories or just-in-time basis is one of the self-paced learning that the students have to undergo on their own without the ‘force’ or strong ‘reminder’ to the student. The entertainment values of the educational software appeal the most to students. These parts only distribute for the Test Group with value as shown in Table 9. 69.2% students choose entertainment value as the most appealing feature of the software product

Table 9: Frequency Distribution for Test Group

Test Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
Entertainment	18	69.2	18	69.2
Story-line	2	7.7	20	76.9
Color quality	3	11.5	23	88.5
Video and animation	2	7.7	25	96.1
Audio quality	0	0	25	96.1
Interactivity/ responsiveness	1	3.9	26	100.0
Help	0	0	26	100.0

Usage of E-Learning Material

Maneuverability and navigation	0	0	26	100.0
Assessment	0	0	26	100.0
Total	26	100.0		

Students prefer to use the application that reflects on their studies, such as word processing, and which is attractive like games and whichever is needed for their studies as shown in Table 10 and Table 11. This also reflects that whenever they have to learn will indirectly force them to 'love it'. Most of the students tend to use it to finish-up their work. It is more towards on their ability on just-in-time basis where they have to use it for the sake of finishing their studies.

Table 10: Frequency distribution for Test Group

Test Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
Word Processing and Spreadsheet	12	46.2	12	46.2
Programming languages	2	7.8	14	54.0
Internet Application	10	38.5	24	92.5
Educational Software	1	3.8	25	96.3
Authoring or editing software	1	3.8	26	100%
Total	26	100.0 %		

Table 11: Frequency distribution for Control Group

Control Group			Cumulative	
Value	Frequency	Percent	Frequency	Percent
Word Processing and Spreadsheet	10	38.5	10	38.5
Programming languages	2	7.8	12	46.3
Internet Application	10	38.5	22	84.8
Educational Software	2	7.8	24	92.6
Authoring or editing software	2	7.8	26	100%
Total	26	100.0 %		

Conclusion

Many teachers understand that students are different as individuals. Each student is unique in his or her needs and each student learns in different ways. But most of our standard teaching and learning procedures and lesson presentations methods are very weak in allowing for these individual differences especially in an English Language lesson which is carried out from 45 minutes to an hour in duration. Thus most students are treated more or less in the same way by the teacher in a typical lesson. One plausible way to overcome this impasse is to provide students with individualised English Language lessons through e-learning material, which encourages active learning while providing linguistic training for students (Hussain, Ismail, Jais, & Ahmed, 1999; Hus-

sain, Jais, & Rahman, 2000). These e-learning materials are said to promote student directed in quiry, assist in developing competent linguistic skills and address more efficiently the learning needs of individual students through self-paced, self-learning modes. As such, the key question here is to prove that e-learning material is indeed an effective enabling tool to enhance the proficiency of English Language in students.

Taking the advantage of educational technology is not only meant for teachers but also for the students. If the students do not have the capability of 'self-paced learning' then they still prefer the traditional way where they come to class just sit and listen to the lecture. Then one way in enabling them to use e-learning material is by giving them such as notes to be retrieved online, CD to go through for extended explanation or web-based to answer short quiz and other e-learning materials to support the communication with the students not only by sitting in the class.

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Biography

Hanafizan Hussain is currently a postgraduate student in the Faculty of Creative Multimedia, Multimedia University, Malaysia. Her research interest focuses on innovative education, e-learning and edutainment environment.

Appendix A: Pre English Cloze Test

The English Cloze Test Passage

Technically, herbal tea is not exactly 1)_____ as we know it. Even Though 2) “_____” is just an adjective for 3)_____ word “tea”, herbal tea actually has 4)_____ “herbally”, excerpt tea leaves! The trend 5)_____ when the healthy living phenomenon hit 6)_____ West back in the `70s and 7)_____ tea become an overnight sensation. The 8)_____ and tein found in the tea leaves 9)_____ recognised to be bad substances for 10)_____ body, being anti-depressants that keep you 11)_____, addictive and not good for your 12)_____ well-being. Thus, the “saintly” herbal tea 13)_____ into the world of tea drinking. 14)_____, people were adding “things” into 15)_____ teas, like lemon and spices to 16)_____ - them different flavours. Companies picked up 17)_____ that practice and later created existing 18)_____ tastes (minus the tea), as well 19)_____ finding other ways to make it 20)_____ interesting to drinkers. As a result, 21)_____ date, there are all kinds of 22)_____ teas to cater for individuals tastes 23)_____ well as for health reasons.

Appendix B: Pos English Cloze Test

Post-Cloze English Test

- 1) Technically, herbal tea is not exactly _____ as we know it.
- 2) Even though “_____” is just an adjective for _____ word “tea”, herbal tea actually has _____ “herbally”, excerpt tea leaves.

- 3) The trend _____ when the healthy living phenomenon hit _____ West back in the '70s and _____ tea become an overnight sensation.
- 4) The _____ and tannin found in the tea leaves _____ recognised to be bad substances for _____ body, being anti-depressants that keep you _____, addictive and not good for your _____ well-being.
- 5) Thus, the “saintly” herbal tea _____ into the world of tea drinking. _____, people were adding “things” into _____ teas, like lemon and spices to _____ - them different flavours.
- 6) Companies picked up _____ that practice and later created existing _____ tastes (minus the tea), as well _____ finding other ways to make it _____ interesting to drinkers.
- As a result, _____ date, there are all kinds of _____ teas to cater for individuals tastes _____ well as for health reasons.