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## RESEARCH ARTICLE

### THE ATTITUDES OF COMPUTER SCIENCE STUDENTS ON BLENDED LANGUAGE INSTRUCTION: HAWASSA UNIVERSITY IN FOCUS

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#### ABSTRACT

The objective of this study was to examine the attitudes of Computer department students about Blended Learning (BL) on English Language instruction. The main design of study was quasi-experimental. Two sections of eighty students were selected using purposive sampling techniques. The experimental students attended BL (Face-to-Face supported by online learning materials). They filled both pre and post attitude scales. However, the control group students attended merely face-to-face classroom. The attitude questionnaires were used as study tool, and students had positive attitude towards BL. Then, finally, recommendations were forwarded.

##### Key words:

Blended Learning,  
Computer Attitudes,  
Computer Usefulness,  
Computer Liking,  
Computer Confidence and Computer  
Phobia and Quasi-Experimental Design.

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## INTRODUCTION

Computer technology has become an important tool in the teaching process and in students learning as well as students' attitudes and achievements in schools today. As (Lockard, 1997), believe the computer is an inescapable component of changes now facing education in the United States, indeed throughout the world. Furthermore, (Ireson, 1997) believes that teaching and learning are difficult goals to achieve and that the computer opens new ways for working toward these goals. It is an excellent tool that provides an educational environment with virtual situations that students can apply to real life. We cannot ignore the computer in the English classroom. We have no choice: if we don't learn about the effects of the computer and acclimatize our teaching, we can actually inhibit our students' education. The computer in the new millennium will be as much a part of academic life as pen and paper are now. In the present situation, where a number of students need a great deal of materials for references, a single soft copy can be more than enough to address millions of students and satisfy

their needs (Singh *et al.*, 2007). It is possible to import highly sophisticated and expensive instruments for the purposes of education, research, development, security, and defense. The country, however, needs not only those capable of operating the sophisticated instruments and machines but also experts with sound knowledge (Erkan, 2003). The present generations who are intensively engaged in academic life are expected to contribute something observable and measurable input to the present and future generations. To do this, as the research report underlines that the young generation must learn in order to preserve and enhance the record of humanity, to be productive members of a larger community, to be good citizens and good ancestors to those who will follow them (Noiwan, 2005). At present time, Ethiopian Universities are at a historical juncture, shifting from Agricultural- led economy to Industrial and information-led economy era, and National perspective to a globalized one. The academic institutions are growing rigorously; the numbers of students attending classes are multitude. However, the teaching learning system in the country is complained due to inadequacy of quality education. The quality of education is supposed to be regained with using innovation, Information and Communication Technology (ICT) (Mola Mitiku, 2008). Mastering computer technology

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and harnessing it for widespread and comprehensive use among the students is not an easy task. This becomes even more challenging when this technology is progressing and changing rapidly. Students need to have the right kind of attitudes to be able to keep up-to-date with the rapid changes that occur in computer technologies. Developing positive attitudes among the students is more critical than merely increasing students' computer skills because "positive attitudes will automatically lead to the learning of computer skills" (Loyd, 1985). Different researchers defined attitude in different expressions; however the concepts revolve around certain ideas. For example, Loyd and Gressard (1984) divided the construct 'attitudes' into four different variables, which are: 1) computer liking; 2) computer anxiety; 3) computer confidence, and: 4) perceived usefulness of the computer.

### **Statement of the Problem**

Several research studies have looked at ways of incorporating Computer assisted education/applications into classroom activities and language teaching [8, 9, 10, 11, and 12]. Other studies acknowledge that for successful implementation of Blended Learning, learners' and teachers' attitudes towards computers should also be taken into consideration and proper guidance and training should be provided to overcome possible problems related to applying concordance tools. However, research that probes second language (L2) or foreign language students' perceptions of and attitudes and approaches towards computer assisted learning is limited.

The findings even manifested that students' attitudes toward using computer technology resources influence their acceptance and use of these resources. Furthermore, positive attitudes toward these computer technology resources might develop depending on opportunities, facilities and training provided to users of them. Because computer technology has become an important tool in the teaching and learning process in the arena of universities today, it is crucial to learn how students feel about computer use in their classrooms. This research has focused on the students perspectives concerning computer use. The purpose of this study was to investigate students' attitudes toward computer use in the university setting. This study also aimed to look at how students of computer department perceive the use of computer assisted education/ BL, in learning English language writing skills. The study investigated the factors influencing students' attitudes towards blended Language Learning. The study also investigated whether and to what extent training influences students' attitudes towards use of Blended instruction.

### **Objectives of the Study**

The general objective of this study, therefore, was to examine the attitudes of Computer department students about Blended Learning (BL) on English Language instruction. The specific objective of the study includes:

- Explore the learners' attitudes toward the use of BL in the EFL writing Course.

### **Significance of the Study**

Blended Learning, face-to-face and Intranet and web-based resources, is now used in many countries. Teachers and learners get benefit from computer technology using vast resources and opportunities for language teaching and learning. Maximum benefit from these resources can only be achieved through teachers' use of technology in developing materials for the language classroom. The results of this study may be useful in identifying students' attitudes towards and approaches to using the Blended learning and the reasons behind these attitudes. The study and its results might also suggest better ways of training and equipping students with strategies, techniques, and approaches. Such training might be achieved through the implementation of an effective training program on how to blend the contemporary teaching (face-to-face/chalk and talk) with computer technology, as well as computer technology resources. Based upon these findings, therefore, the Ministry of Education will be in a better position to make informed decisions about the investment of finance in the area of computer technology for use in the higher academic institution in Ethiopia. This study adds to the limited research on the use of computers to enhance attitudes, motivation, study habits, and creativity. It contributes to knowledge on the appropriate way to use technology in teaching and the learning process. Finally, since almost all universities and schools in Ethiopia in general and HwU in particular are not yet aware of this technology and its applicability to language teaching, the study might provide some forms of guidance to language programs throughout the university that want to pursue a similar path in the future.

### **Conceptual Framework of the Study**

The conceptual framework of this research is based on the constructivist learning modes [7, 11]; it revolves around identifying three clusters that can make fundamental difference about what BL is. BL combines different aspects of motivating teaching and learning: theoretical, methodical and level of media. The theoretical level motivation combines different theories of learning, like constructivism, cognitivism, and behaviorism [7, 12]. The methodological level of motivation combines autonomous learning with instructor-led learning, individual with cooperative learning, and receptive with explorative learning, etc[13]; the level of media switches between FTF and on-line elements of communication as deemed best to realize a given learning activity [14]. The instructional relationship between the teacher and the students becomes quite different. The role of the teacher becomes more complex as it involves the management of the learning environment, providing instruction and scaffolding learning activities, monitoring feedback and progress, of the learner and assessing learners' performance. Students, on the other hand, play active part and assume more responsibility for their own learning. They seek information and construct knowledge on their own based on their previous experience and interact actively with their peers and teacher to enhance their learning process. The technology used plays the role of an enabler, providing sufficient resources to ensure successful establishment of the learning environment [8, 20, and 21].

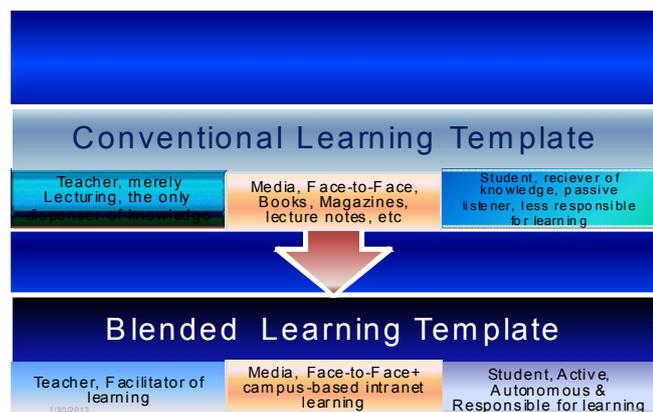


Fig. 1. Blended Learning Model

With BL, the emphasis in learning is upon the students who are active learners, seeking information and knowledge on their own, determining how to reach the desired learning outcomes themselves and not relying on teachers to supply them with information. Here, students become active participants in their own learning processes and learn to solve problems and work collaboratively with their peers. Learning takes place in a meaningful, authentic context and is a social, collaborative activity, where peers play an important role in encouraging learning. In this respect, the teacher is no longer perceived as the sole authority of learning, but, rather, as the person to facilitate learning, guiding and supporting learners' own construction of knowledge [15,8]. The concept of this synthesis of theoretical, methodological and media level dichotomy has been bridged through the BL approach in the context of teaching and learning process of the writing skill course of this study.

## MATERIALS AND METHODS

### The Research Design

The purpose of this study, as portrayed in the beginning, was to explore the perceptions of computer department students on Blended Language Instruction at HwU. The study employed a quasi-experimental research design. Quasi-experimental research, according to [16] is a type of design where random assignment to groups is not employed for either ethical or practical reasons, but certain methods of control are employed and the independent variable is manipulated. Based on the objectives and research questions, the researcher used qualitative data from students to make intense study on BL.

### Participants, Sample and Sampling Techniques

A total number of 40 computer science students of the HwU, participated in this study. The information used for this study was gathered through a questionnaire, which comprises of three different sections: (a) Background Information (including experience in using computer and frequency of use); (b) Perceived usefulness; (c) Confidence, and (d) Attitudes toward computers. Respondents' background information items were designed mainly to build the profile of respondents, and also to collect information on frequency of use and experience of students in computer use.

### Instruments of Data Collection

The qualitative method was used to get a broader picture of the perceptions and knowledge of students towards BL. Therefore, to carry out this study pre & post tests of Perception Questionnaire was used.

### Methods of Data Analysis

The paired-sample t-test was worked out to examine whether there was a significant difference between the pre-test and the post-test performances of the group; inter-rater correlation coefficients were computed using Pearson Product Moment Correlation.

## RESULTS AND DISCUSSION

This study investigated the students' pre & post tests of perceptions on BL; the students' attitudes towards BL in teaching English writing skills and the use of computer technology resources in language instruction were assessed. As insight gained from Pilot Study, the null hypotheses of no difference among the groups were rejected, and the directional hypotheses were tested. On the other hand, BL has significantly heightened their attitude toward computer usefulness, computer liking, and computer confidence whereas it decreased their computer anxiety raising their self-esteem. BL created a warm-climate among the students themselves.

### Paired T-test Summary for Students' Pre and Post tests Perception Score

Difference	Mean	SD	t	df	Sig.
Post-CU – Pre-CU	.86	.25	21.48**	39	.000
Post-CL – Pre-CL	1.09	.18	38.78**		.000
Post-CA – Pre-CA	-1.28	.28	-28.78**		.000
Post-CC – Pre-CC	.73	.52	8.85**		.000

CU= computer usefulness, CL= computer liking, CC= computer confidence, CA= computer anxiety, \*\*p<.01

The attitudes of students were assessed in using BL in writing skills course. The results showed that computer use among students was very low. Most students reported that they have positive attitudes towards computers. The findings of the study also suggest that there are three key factors affecting the use of BL in the classroom: instructors' personal interest in internet use, instructors' abilities to integrate internet resources into classroom activities, and computer facilities and technical support on campus. More specifically, students articulated, the issues on benefits and challenges of using BL were summarized in seven statements as follows:

- ICT positively impacts educational performance in BL form, particular in English language writing course;
- Use of BL improves students' attitude toward English language;
- There is a positive association between the length of time of ICT use, and increment of computer confidence and a decrease in computer anxiety;
- Students with higher levels of e-experience demonstrate a more rapid increase in performance than those with lower levels;

- Institution with good ICT resources achieves better results than those that are poorly equipped;
- ICT investment impacts educational standards most when there is fertile ground in institutions for making efficient use of it.

To sum up, according to the results shown, the students' attitudes and perspectives towards the implementation of BL course as a whole were highly positive. In particular, the students showed high satisfaction with the course arrangement. It was surprising that the feature of the BL could moderately stimulate the students' learning motivation for English writing.

### Conclusions

In this study, the students who participated in BL could continuously obtain relevant knowledge and skills through the group work process. Moreover, students have positive attitude towards the BL approach. All the students found the online writing course useful and fun, and considered it a new way of leaning. It heightened their motivation and raised their self-esteem. It created a warm-climate between the students and instructor and among the students themselves. They found the exercises posted in their account useful, as they provided more practice and gave instant feedback. The experience and familiarity might improve people's perceptions about their computer skills and consequently improve their computer attitudes. Thus, it could be concluded that the treatment of BL course significantly improved the computer attitudes of students.

### Contribution to Knowledge

The distinguishing mark of this research is an original contribution to information that pushes forward the boundaries of knowledge. The researcher would regard as a really innovative aspect of his theoretical or methodological strategy which has been reflected in the form of BL. That is, contribution to the field of educational technology within the landscape of Higher Education as it helps to improve practice by making a shift from merely FTF teaching to BL. Further, it helps to promote Technology enhanced Learning and ICT Skills for more flexible scheduling options that makes BL one of the fastest growing delivery modes in both education and training in the Ethiopian Universities.

This thesis has shown three important things that the research has:

- Identified worthwhile problems which have not been answered previously.
- Answered questions which were stated in section 1.3;
- Rejected all null hypotheses that were speculated in chapter one

### Contribution to HwU and towards National Development

The HwU is currently aspiring to transform itself into a technologically-driven University in order to expand access, participation, engagement and student experience based on its strategic priority areas as discussed in Section 1.1. The researcher strongly believes that the BL model is robust,

coherent and comprehensive enough to help HwU to address all its priority areas, and to take education to the people across the university and even in all campuses under the institution.

### Recommendations

Based on the findings of this research, the following are some recommendations for preparing students for computer technologies. Since students portray positive attitudes toward computers, efforts in creating or instilling the right kind of attitudes toward computers among students simply means reinforcing existing positive attitudes. However, the complex nature of attitudes may require certain kind of attitude assessment to be conducted prior to BL instruction so as to determine the factors needed for improvement. This study highlights the importance of uplifting students' confidence level in using computers. If students are confident in using the technology, it is predicted that their attitudes toward computer will also rise. The study also identified that students' levels of computer experience and frequency of use are moderate. Since these two factors are also predictors of computer attitudes, measures should be taken to ensure that students are given more exposure to hands-on experience. Since not everyone can afford to have computers at home, the university should provide more opportunities for students to use computers as frequently as possible.

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