BREAKING LANGUAGE TEACHERS' BARRIERS TO USE CALL PROGRAMME

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Abstract

Industrial Production data is the key to study the growth and development of a nation. The data needs to be disseminated before formulating any models for prediction. Factor Analysis a key tool in multivariate statistics and has been used to determine the latent factors that best explain the data. In addition Principal Component Analysis framework has been used for analyzing the data with respect to the contribution of variability by each of the components. The multiplicative models has been examined for its initial strength of the relationship for the production data and validation of the same has been discussed. The data has been processed for the removal of outliers, if any.

Key words : Production Data, Principal Component Analysis, Communalities, Component Matrix, Rotated Component Matrix and Outliers.

I. INTRODUCTION

Multimedia computing, the Internet, and the World Wide Web have provided an incredible boost to Computer Assisted Language Learning (CALL) applications. Once relegated to "novelty" status, CALL is finally achieving the recognition it deserves thanks in large part to these developing technologies.

Desktop computers are now able to play natural human speech together with full-screen interactive video, impossibility just a few years ago. Users can now communicate and interact with one another in real-time. Such virtual chats provide solid opportunities for authentic language use among native and non-native speakers on an unprecedented scale in terms of the numbers of users and the geographical distances involved.

The main focus of this paper is to find out the answer for the question whether computers really assist second language learning, whether the language teachers are able to use computers or not, Even now many teachers who have never touched a computer whereas, the overwhelming number of teachers who give computers a try find that they are indeed useful in second language learning. No doubt, computers make excellent teaching tools, especially in teaching languages in any aspect, be it vocabulary, grammar, composition, pronunciation, or other linguistic and pragmatic-communicative skills. And the major benefits offered by computer in enhancing language acquisition apparently outweigh its limitations.

Computer aided education in general and computer aided instruction for English Language in particular have penetrated the mainstream education system for the past five years due to its profound capability of breakthrough the geographic boundary and rigid schedule of traditional classroom instruction. However, just like every other disruptive technology, it also experiences its fair share of resistance. To reach its full potential, it is important to identify the major barriers impeding the growth of this new technology.

This paper proposes a methodology to discover the barriers that influence Language teachers in the use of computers in their classrooms. The participants in the study were Fifty Language teachers who applied computer assisted language learning (CALL) in the classroom or computer lab in Engineering Colleges in Tamilnadu. The survey study included the participants' demographic data, variables influencing the use of CALL, and five open-ended questions. Factor analysis was selected as it is one of the most powerful statistical techniques in succinctly identifying the major factors influencing the outcome of the research especially when the factors may not be measurable directly and effectively during the survey which is the case in this study. The findings demonstrate that there are three key barriers that impact teachers who use CALL programs to teach Language and Language teachers may change their roles as they implement CALL programs. The results can help educators to better understand the impact of CALL and to anticipate the barriers of CALL program they may face.

II. PURPOSE OF THE STUDY

The purposes of this paper are two-folded: 1) To identify the barriers that CALL coursework has on the classroom and address how language teachers use computer technology in their teaching. 2) To explore how these barriers impact teachers who use CALL. Research Questions

The following research questions were addressed in this research project:

1. What barriers do Language teachers encounter when using CALL programs?
2. What impact does this barrier have on teachers who use CALL programs to teach Language

The questionnaire design was further complicated by the fact that some factors, such as" acceptance of technology" might not be intuitive to subjects and hence not directly measurable and hence must be measured by a set of measurable variables.

In this study, the researcher used the following samples as the source of subjects. The target populations were from Self Financing Engineering College English Language Lecturers. The participants in the study were English Language teachers who applied CALL in the classroom or computer lab. The teachers' experience ranged from more experienced (more than 20 years experience, n= 5) to less experienced (5 or fewer years of experience, n= 31). A total 50 Language Lecturers were surveyed and 50 Language Lecturers returned the survey. The return rate on this survey was 97%.The population in the study was 50 Language Lecturers, of whom three (4.48%) were males and sixty-four (95.52%) were females. Thirty-one teachers (46%) had taught less than 5 years, six (9%) between 5-9 years, twenty-three (34%) between 1014 years, two (3%) had taught between 15-19 years, and five (8%) more than 20 years of experience. Educational! credentials of Language teachers: fifty-five (82.1%) had a master's degree with M.Phil., and three (4.5%) had a doctorate degree.

III. SURVEY

This Survey consisted of twenty-nine items divided into six sections. Section 1 surveys the demographics of the participants. Each respondent was asked to provide personal information such as gender, current teaching level, years of teaching experience and educational qualifications. Section 2 asks the respondents about the college's funding for the computer assisted language learning program.

Section 3 includes items concerned with the availability of computer hardware and software. Section 4 includes statements regarding the respondents' technical and theoretical knowledge of the use of computer assisted language learning programs. Section 5 includes statements eliciting the basic views of respondents toward the use of technology in the classroom, their insights of administrative and actual support, and their self-estimated use of technology. Section 6 includes open-ended questions for respondents' suggestions and barriers on the use of CALL programs to teach Language.

The major steps in statistical analysis are :

I. Validity and Reliability of the Research Questionnaire

II. Factor Analysis

The objectives of Exploratory Factor Analysis (EFA) are to identify the underlying factors influencing the outcome of measurable response variables through survey data. During the survey design stage, the researcher may propose measurable variables which may contribute to the response of the study. Based on measured data from the survey, factor analysis is used to explore the correlation among measurable variables and determines whether the relationship can be summarized in a smaller number of factors.

IV. ANALYSIS

The major barriers inhibiting the practice of Computer-assisted Language Learning are:

(a) financial barriers,

(b) availability of computer hardware and software

(c) technical and theoretical knowledge, and

(d) acceptance of the technology.

A. Financial Barriers

Financial barriers are mentioned most frequently in the literature by language education practitioners. They include the cost of hardware, software, maintenance (particular of the most advanced equipment), and extend to some staff development.

B. Availability of Computer Hardware and Software

The most significant aspects of computer are hardware and software. Availability of high quality software is the most pressing challenge in applying the new technologies in education. Underlying this problem is a lack of knowledge of what elements in software will promote different kinds of learning. Computer hardware and software compatibility goes on to be a significant problem. Choosing hardware is difficult because of the many choices of systems to be used in delivering education, the delivery of equipment, and the rapid changes in technology.

C. Technical and Theoretical Knowledge

A lack of technical and theoretical knowledge is another barrier to the use of Computer-assisted Language learning technology. Not only is there a shortage of knowledge about developing software to promote learning, as shown above, but many instructors do not understand how to use the new technologies.

Furthermore, little is known about integrating artificial intelligence in computers, might promote learning of higher-order cognitive skills that are difficult to access with today's evaluation procedures and, therefore, the resulting pedagogical gains may be under-valued. Improper use of technologies can affect both the teacher and learner negatively.

D. Acceptance of Technologies

We live in a time change. Change has become so rapid, so turbulent, and so unpredictable that is now called "white water" change (p.10). Murphy & Terry (1998a) indicated the current of change move so quickly that they destroy what was considered the norm in the past, and by doing so, create new opportunities. But, there is a natural tendency for organizations to resist change. Wrong conceptions about the use of technology limit innovation and threaten teachers' job and security. Instructors are tend not to use technologies that require substantially more preparation time, and it is tough to provide instructors and learners access to technologies that are easy to use.

V. CONCLUSION

An ideal CALL courseware remains not an alternative but a complementary tool in reinforcing classroom activities. Apart from relying on the ability of educators to create suitable CALL courseware, the effectiveness of CALL depends on the teacher's readiness to adopt new attitudes and approaches toward language teaching. The teacher should avoid being skeptical about the use of computer in language teaching and begin to re-evaluate his /her methods in the light of computer's tremendous teaching potential and boldly address to the challenges offered. The computer can best assist teachers if it is seen not as a replacement for their work but as a supplement to it. By the way, the computer, will not replace the language teachers, but, used creatively, it will relieve them of tedious tasks and will enable students to receive individualized attention from both teachers and machines to a degree that has hitherto been impossible.

This paper proposed a complete methodology to survey and identifies key barriers affecting using CALL programs in English Language instructions using sampling survey and exploratory Factor analysis techniques. The results could be valuable information to educators to better understand the impact of CALL coursework on classroom instructions also for the English Language Teachers it is an high time to enhance their technical knowledge to use CALL programs in the Class room or in the Language Lab.

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