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#### CONTRIBUTIONS TO BOOKS

 Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

#### IOURNAL AND OTHER ARTICLES

 Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

#### CONFERENCE PAPERS

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### ADEQUACY OF KNOWLEDGE AND ATTITUDE TOWARDS INFORMATION TECHNOLOGY OF STUDENT LIBRARY USERS AT SELECTED COLLEGES AND UNIVERSITIES IN CALABARZON, PHILIPPINES

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#### **ABSTRACT**

Technology plays a very vital role in almost aspect of life. In fact it has completely changed the way we live. There are many manual tasks that have been automated, thanks to new and innovative technology. Modern day technology has the ability to carry out a wide range of critical and complex processes quite efficiently. Just as technology has created an impact on almost all walks of life, it also has had a major impact in the field of education. In fact the impact of information technology in education has been very positive, thereby leading to huge changes in the entire education industry for the better. The modern world has reacted strongly to the fast pace of the advancement of science and technology which has affected the various dimensions of living and lifestyles. It has likewise affected all types of organizations, the business, government, and most of all the school. In management operation, automation has taken place of clerks and computers have pervaded all types of organization, and have become an inherent feature. Methods of operations, communications have been revised to suit what are current of the times. Not only have lifestyles of people been affected with the use of cell phones as a mode for communication, it has also affected the classroom processes including structure This study sought to answer the following questions: How adequate is the knowledge of personnel on IT? What are the attitudes of student respondents towards the following: Technical knowledge of the computer, Capabilities of the computer, and Importance of the computer; and To what extent are attitudes of the respondents significantly related to: knowledge of computer and demographic variables? Descriptive method and random sampling was used in this study. The researchers utilized a quota samples of five hundred (500) student library users of selected colleges and universities in ( Cavite, Laguna, Batangas, Rizal and Quezon) CALABARZON during first semester of the school year 2012-2013, and focus only on attitudes of respondents in terms of technical knowledge of computer, capabilities and importance. Descriptive method of research with the questionnaire as the main source of data. Based on the results the importance of information technology to the respondents, showed positive attitudes, followed by the capabilities of the computer, but attitudes were neutral on the technical knowledge of the computer. On relationship between attitudes with adequacy of knowledge of information technology in its technical aspect, capabilities and importance was determined the summary of the values on such relationship with attitudes as the independent variables and adequacy of knowledge as the criterion measures; technical aspect showed negligible but positive and direct relationship, technical knowledge of information technology does not contribute much to attitudes towards information technology; Capabilities of the computer showed almost significant but very negligible relationship which means that knowledge of computer does not contribute much to the attitudes of the students towards information technology and importance of computers showed substantial and it was very significant which means that importance of the computers result in positive attitudes towards them.

#### **KEYWORDS**

Information technology; knowledge, attitude - computer; Information Technology, Assessment.

### INTRODUCTION

echnology plays a very vital role in almost aspect of life. In fact it has completely changed the way we live. There are many manual tasks that have been automated, thanks to new and innovative technology. Modern day technology has the ability to carry out a wide range of critical and complex processes quite efficiently. Just as technology has created an impact on almost all walks of life, it also has had a major impact in the field of education. In fact the

#### VOLUME NO. 3 (2013), ISSUE NO. 09 (SEPTEMBER)

impact of information technology in education has been very positive, thereby leading to huge changes in the entire education industry for the better. With the advent of computers and internet technology, the field of education has undergone a complete transformation. This shows that the relevance of information technology in education is something that cannot be ignored. Consider this fact, the introduction of computers in education has made it very convenient for teachers to provide knowledge to students in an easy to learn manner. The use of internet technology has made education an interactive process.

Technology adaptation theory was utilized in this study it is a theory of cycles. As technology alters the work environment, creating new routines and conditions, new problems develop. Those who produce technology realize these problems and continually modify the technology in order to solve them. It is an ongoing cycle of adjustment to the new reality that technology creates in all areas of life. The modern world has reacted strongly to the fast pace of the advancement of science and technology which has affected the various dimensions of living and lifestyles. It has likewise affected all types of organizations, the business, government, and most of all the school. In management operation, automation has taken place of clerks and computers have pervaded all types of organization, and have become an inherent feature.

Faculty, students and researchers now frequent the library not only to pore over volumes of reference materials in the shelves, but to participate in a variety of interactive concerns. These are provided by, among others, sound and video clips which supplement knowledge generated in the past by traditional mode. The advent of internet technology has given rise to online education. Today, distance learning through online education has added a new dimension to education and learning. There are plenty of schools and colleges offering online courses to students wherein students can submit their assignments and homework through internet. In fact most online schools, colleges, and universities offer students the facility of making online submission of assignments. (Buenrostro, 2009) According to Scheeren (2010). the future for library information systems includes the ongoing move to visual system with single-search capability with these systems patrons will be able to enter a research questions on once screen in the return will be books from the collection, items from fee-based databases, and vetted Web sites. Further, students will have had instructions in query formulation, so they will be able to create efficient searches. Another area for the future library information systems provide more search options for patrons than traditional card catalogs. Any piece of data in the MARC record can be search by a modern library information system. Library system reduce the cost of providing catalog. While initial costs are high, sustaining costs are lower than such labor-intense duties as typing and filing catalog cards. The study attempts to determine the relationship between adequacy of knowledge of respondents who are library users of selected colleges and universities in CALABARZON and their attitudes if they are significantly different or related to demographic variables.

#### METHODOLOGY

This study sought to answer the following questions: What are the attitudes of student respondents towards the following: Technical knowledge of the computer, Capabilities of the computer, and Importance of the computer; and To what extent are attitudes of the respondents significantly related to: knowledge of computer and demographic variables? The researchers utilized a quota samples of five hundred (500) student library users of selected colleges and universities in (Cavite, Laguna, Batangas, Rizal and Quezon) CALABARZON, Philippines during first semester of the school year 2012-2013, and focus only on attitudes of respondents in terms of technical knowledge of computer, capabilities and importance. Descriptive method of research was utilized in this study with the questionnaire as the main source of data. The questionnaire was validated by members of the faculty of the University of Perpetual Help Laguna, who were requested to go over the questionnaires and recommend suggestions for the improvement .For evaluation and scoring Likert Scale within a continuum of five was used. Percentage, weighted and T-test was used for in-depth interpretation of the data. The primary sources of data were students in selected colleges and universities in CALABARZON area.(UPHSL; UPH-DJGTMU; St. Michael's College of Laguna; University of San Agustin and La Consolacion College ). Through self-made questionnaires, the researchers acquired the needed information necessary for the study. The secondary sources of data were acquired from books, journals, researchers and internet. The researchers acquired permission from the management of selected colleges and universities prior to the conduct of the study where the researchers personally direct the data gathering procedure .The data gathered were tallied, tabulated, and interpreted.

#### RESULTS

#### 1. ADEQUACY OF KNOWLEDGE OF STUDENT ABOUT INFORMATION TECHNOLOGY

The knowledge of the student respondents were described in terms of their adequacy of information on the technical, capabilities and importance aspect. 1.1 Technical aspect, adequacy of knowledge of respondents were quite varied and fell in two (2) categories with the most of their responses saying that "they were not sure" and some responses showing adequate knowledge about the technical aspect of IT. 1.2 Capabilities, weighted averages ranged from 3.55 to 3.90 identifying adequacy of knowledge in one category that is "adequate" as to the capabilities. 1.3 Importance, knowledge of the respondents on the importance were reckoned as " adequate and very adequate" as revealed by weighted average ranging from 4.10 to 4.92.

#### 2. ATTITUDES OF STUDENTS TOWARDS INFORMATION TECHNOLOGY

2.1 Technical aspect, attitudes of students were neutral as indicated by weighted averages ranging from 3.19 to 3.48. An overall weighted mean of 3.32 revealed that as a whole, their attitudes towards the technical aspect of computer were neutral. 2.2 Capabilities, responses of the group revealed receptively and acceptance of the capabilities of the computers. An overall weighted mean of 4.33 revealed that they had positive attitudes towards capabilities of the computers, which is part of information technology. 2.3 Attitudes, student responses were homogeneous and fell in one category, showing very positive attitudes towards the importance of the computer as revealed by weighted means ranging from 4.50 to 4.85 indicated a very positive attitudes.

#### 3. RELATIONSHIP OF ATTITUDES WITH ADEQUACY OF KNOWLEDGE ON INFORMATION TECHNOLOGY

The relationship between attitudes of respondents towards information technology was determined with adequacy of their knowledge of information technology. *3.1 Technical aspect*, the relationship between attitudes and the student knowledge was described by a computed correlation of 0.126 as negligible but positive and direct. A computed T-value of 1.265 reckoned it however as not significant nor important. With this, technical knowledge of Information Technology does not contribute much to the attitudes towards Information Technology. *3.2 Capabilities of the computers*, the relationship between attitudes and their knowledge of capabilities is described by a bigger correlation coefficient of 1.211 which was almost significant beyond the .05 level. However, a computed T-value of 1.945 reckoned is not significant and bringing only 4.452 percent of variations with the relationship which is very negligible. Knowledge of the capabilities does not contribute much to the attitudes towards information technology. *3.3 Importance of computers*, the relationship between attitudes and knowledge of the importance of computer was described by a computed correlation coefficient of 0.421 which was substantial. It was very significant beyond the .01 level. Attitudes due to their knowledge of important result in positive attitudes towards them. Overall knowledge of information technology is described by a computed correlation coefficient of 0.326 which is described as low but positive and direct. Amount of variations observable in attitudes due to knowledge of information technology reached 10.63 percent which is quite large and reckons overall adequacy of knowledge of information technology as strong predictors of attitudes.

#### 4. RELATIONSHIP BETWEEN ATTITUDES TOWARDS INFORMATION TECHNOLOGY AND DEMOGRAPHIC VARIABLES

The relationship between attitudes towards information technology and demographic variables are age, gender, course enrolled in, time they spent in the library and what part of the day they spend in the library. 4.1 Age, was significantly related to attitudes towards information technology as described by computed correlation coefficient of 0.732 as low but positive and direct. It is significant beyond the .01 level. Amount of variations observable in attitude due to the contribution of age reached 15.05 percent, which is quite large and reckons age as a strong predictor attitudes.4.2 Gender, relationship between gender and attitudes was described by a computed correlation coefficient of 0.388, which is positive and direct and signifies low relationship. 4.3 Courses enrolled in, relationship was described by a computed correlation coefficient of 0.443 which described the relationship as marked and substantial and also positive and direct. It is also significant as reckoned by a computed t-value of 3.132. Course enrolled in is a strong predictor of attitudes towards information technology. 4.4 Time spent in the library, relationship was described by a computed correlation coefficient of 0.126, as negligible and also not significant by a computed t –value of 0.891. Amount of variations observable in attitude is negligible and not strong predictor of attitudes towards information technology.

#### DISCUSSION

Based on the results the importance of information technology to the respondents, showed positive attitudes, followed by the capabilities of the computer, but attitudes were neutral on the technical knowledge of the computer. On relationship between attitudes with adequacy of knowledge of information technology in its technical aspect, capabilities and importance was determined the summary of the values on such relationship with attitudes as the independent variables and adequacy of knowledge as the criterion measures; technical aspect showed negligible but positive and direct relationship, technical knowledge of information technology; Capabilities of the computer showed almost significant but very negligible relationship which means that knowledge of computer does not contribute much to the attitudes of the students towards information technology and importance of computers showed substantial and it was very significant which means that importance of the computers result in positive attitudes towards them.

#### CONCLUSION

In the light of the above findings of the study, the following conclusion can now be made. Respondents were in general young in their middle twenties, mostly females, enrolled in Nursing, Engineering and Education. Students had more knowledge of the importance and capabilities of Information Technology than technical knowledge. Age gender and course enrolled in were strong intervening variables of attitudes towards information technology. Technical aspect was not indispensible in the use of computers, while their attitudes were neutral on technical aspect, they had positive attitudes in general to information technology. Except time, most of the demographic variables were good predictors of knowledge and attitudes.

#### RECOMMENDATIONS

In the light of the above results, the following recommendations are hereby given. More personal variables should be elicited from student so that information would be known on what differences or similarities exists. There should be more promotional gimmicks from the library staff to encourage students to know more about the technical aspects of the computer. More information should be found in bulletins that are attractive to students, so they would be encourage to read more about computers. A series of lectures may be conducted by the library staff on the technical aspect of Information Technology. Ways and means should be planned to encouraged other groups to develop positive attitudes towards Information Technology. Information should be given to the staff on the strong predictors of both knowledge and attitudes. Information about adequacy of knowledge and attitudes should be given to staff and different colleges for decision making.

#### REFERENCES

#### BOOKS

- 1. Adanza, Estelia G. (2008) Methods of Research for the Health Profession. Quezon City: RexBookstore.
- 2. Buenrostro, Juan Jr. (2009). The Digital Library and other issues in Library and Information Science. Philippines: [s.n.].
- 3. Lamb, Annette, and Larry Johnson. (2007). InfoTech: An Info-Skills Workout: Wikis and Collaborative Writing. Lanham: Scarecrow.
- 4. Lamb, Annette, and Larry Johnson. (2007). InfoTech: Podcasting in the School Library, Part 1: Integrating Podcasts and Vodcasts into Teaching and Learning. Lanham: Scarecrow.
- 5. McPherson, Keith. (2007). "Literacy Links: School Library Blogging." In Toward a 21<sup>st</sup> Century School Media Program. Lanham: Scarecrow.
- 6. Scheeren, William O. (2010). Technology for School Librarian: theory and practice. USA: Libraries Unlimited.
- 7. Valenza, Joyce. (2007). "Something Wiki Comes This Way...Are you Ready?". Lanham:Scarecrow.
- 8. Yadav, S.K (2007). Online Library Initiatives. New Delhi: Shree Publishers & Distributors.

#### THESIS

- 9. Alarcon, May Joy et al. "An Automated Library Monitoring System with Barcode and Networking." Unpublished Undergraduate Thesis, University of Perpetual Help System, Laguna, 2011.
- 10. Alora, Carolina B. 2001Information Technology Level of Awareness at La Consolacion College. La Consolacion Binan, Lagun
- 11. Alzona, Ma. Cecilia. "LAN Based UPHSL-Library System." Unpublished Thesis, University of Perpetual Help System, Laguna, 2010.
- 12. Balmaceda, Jayson P. "Library Monitoring System-Immaculate Heart of Mary School." Unpublished Thesis, University of Perpetual Help System, Laguna, 2005.
- 13. Hernandez, Michelle et al. "Engineering Library System." Unpublished Undergraduate Thesis, University of Perpetual Help System, Laguna, 2005.

#### INTERNET

14. "ABCs of Web 2.0:Avatars Blogs, Collaborative Wikis: Blogs, Vlogs, Podcasts, and Web Feeds." Eduscapes. http://eduscapes.com/sessions/abc/abc3.htm. (2009)



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