

Online learners' interactions and characteristics affecting satisfaction and academic performance: A Philippines case study



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The study seeks to identify and validate the elements that contribute to the successful delivery of online instruction in terms of types of learners' interaction and characteristics. This is achieved through a 20-item survey questionnaire administered to forty distance education students enrolled in the Master of Public Administration course in one of the Philippines' state universities. Factorial designs of 2^3 were used to identify the appropriate combination of the learner's interaction in order to achieve highest possible grades.

Keywords: online, learner-content interaction, learner-learner interaction, learner-instructor interaction, run type, factorial design

Introduction

The advancement of technology changes the way of teaching in most universities and colleges. The use and integration of information and communication technology in the course instruction had believed to enhance learning. Soon many universities and colleges will offer online courses because it offers many advantages such as flexibility, convenience and easy access. Many adult learners had become interested on how online learning is approached and delivered. In light of how distance education or online instruction is delivered and approached, the question in hand will be what leads to effective teaching and learning in distance education? When one leaves the traditional classroom instruction and enters online instruction there will be a shift in education paradigm that must be adopted to ensure student success. It is therefore the aim of this study to identify the variables that will affect the students' achievement/learning in an online course. And because the distance education is independent of time and place, the emphasis of the study is about the adult learner where they likely possess the responsibility for their own learning.

Methodology

The primary sources of data were the enrollees in Master of Public Management in a state university for school year 2005-2006. The proponent used 2^3 factorial designs of experiments to determine the significant differences in the types of interaction and the learner's characteristics and their relationship with the response variable, which is the student's final grade.

Results

There are eight combinations that the learners use in interacting with their learning environment. The learning environment is composed of the content, the co-learners and the instructor. Factors A, B and C are designated as the learner's interaction *with the content* (A), *with peers* (B) and *with the teacher* (C). The negative sign (-) is defined as low-level interaction, which is for the responses of *never* and *occasional*, that is no interaction to once a week interaction for two to three hours with the learning environment. On the other hand, the positive sign (+) is defined as high level interaction, which is for the responses of *often* and *very often*, that is two to three times per week for two to three hours interaction with the learning environment.

Figure 1 illustrates the different combinations of learners' interactions and their academic performance as reflected in their mean Final Grade. Run 4 achieved the highest academic performance with a mean final grade of 1.333. The highest possible grades to obtained is 1.0 which is equivalent to 100%, followed by 1.25 which is equivalent to 97%, then 1.50 which is equivalent to 94%. Note that from all respondents, none of them used the Run 7 throughout the semester.

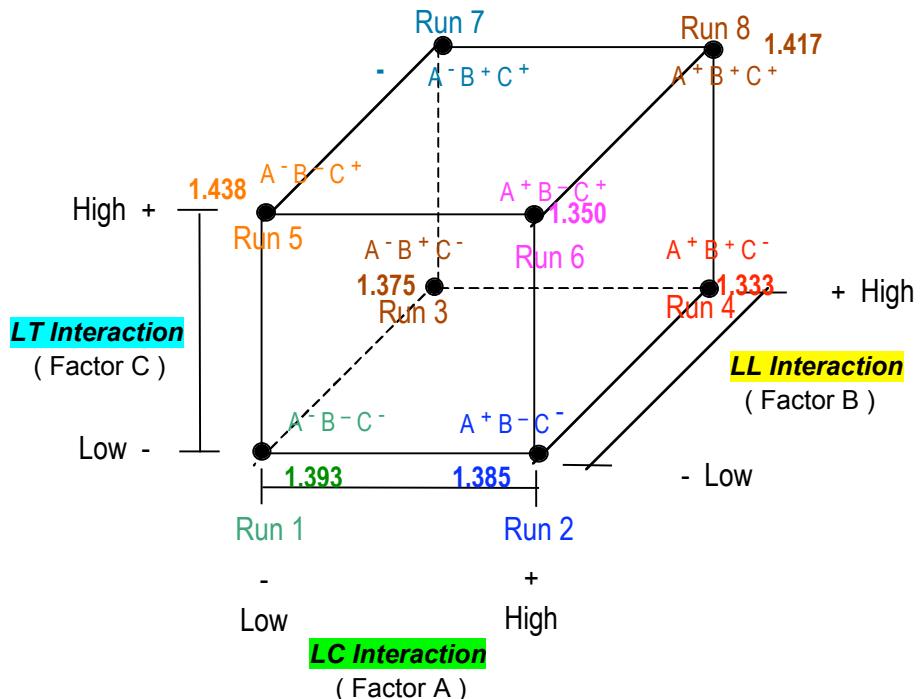


Figure 1: The 2^3 designs for learner's interaction affecting the academic performance of the students

Results

Attaining knowledge in an online instruction is achieved not only through interactions with the content but also, the interactions with peers and instructor. These forms of learner's interaction must be present in instructional delivery and activities so that adult learners would not only benefit in this form of learning but also with the young adult learners who want to interact regularly with their learning environments in which they could build and construct knowledge that would lead to achieving authentic learning.

Conclusion

Technology in itself cannot teach the students, but it is in the instructional design and activities that provides learning to them. The instructional design and activities must lead to the concept of learner's interaction to his learning environment so that highest learning objectives would be achieved and valuable experience of the learners in an online environment might result. Emphasis in the learners' interaction with their peers provides greater benefits to the achievement of learning outcomes.

References

- Asian Development Bank (2000). *Distance education in Asia and the Pacific*, Vol.1, p.1-546.
- Asian Development Bank (2000). *Regional seminar on distance education*, p.462.
- Bradley, J. (2003). *Distance education cross cultural studies*. Kogan Page, London, pp.-196.
- Calmorin, L. P. & Calmorin, M.A. (1995). *Methods of research and thesis writing*. Rex Bookstore, 1st. ed. pp.-150.
- Cornick, G. P. (1999). *The distance learner's guide*. Prentice Hall, New Jersey, pp.1-192.
- Montgomery, D. C. (1997). *Design and analysis of experiments*. John Wiley & Sons, New York p.218.

Moore, M. G. & Anderson, W. G. (2003). *Handbook of distance education*. Lawrence Erlbaum Associates, New Jersey.

Van Dusen, G. C. (2000). *Digital dilemma: Issues of access, cost, and quality in media-enhanced and distance education*. ASHE-ERIC Higher Education Report, Volume 27, Number 5. Jossey-Bass Higher and Adult Education Series.
<http://eric.ed.gov:80/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED443371>

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