Learner Self-Regulation in Distance Education: A Cross Cultural Study

Aisha S. Al-Harthi
Assistant Professor, College of Education
Sultan Qaboos University, OMAN

Introduction

Cross-cultural variations are slightly addressed in the distance education literature. The majority of the available literature is theoretical and lacks empirical research. With the expansion of distance education through information technology, the body of learners is becoming more diverse and multiple cultural contexts are involved; yet not represented or fully understood. The process of learning at a distance may appear to be similar for learners around the world emphasizing self-directed learning and learner autonomy, through which the bulk of the responsibility for learning is transferred to the learner. However, not all learners are able or willing to handle this burden, which results in dropping out from the system or silently struggling to regulate one’s learning process. In fact, Young (1996) provides evidence suggesting that learners with low self-regulation or self-direction perform poorly when given control over their learning in relation to choice, sequence and pace of learning events; whereas their counterparts with high levels of self-direction or self-regulation performed equally well regardless of the type of control given. There is a need to empirically examine differences in the learning process among learners from different cultures and explore how these differences, if any, affect learning at a distance.

Research Questions and Methodology

Therefore, this study examined the following research questions in an effort to compare between the American and Arab culture within distance education settings:

1. Are there any differences in self-regulation (planning, effort, and self-efficacy, self-checking, help-seeking and time and study environment management) between Arab and American distance learners?
2. Are there any differences in cultural orientation (future time perspective and interdependence) between Arab and American distance learners?
3. What is the best model (variance and covariance structure) to explain the relationship between learner self-regulation and cultural orientation?

This comparative study research was conducted on an equivalent sample of 95 cases (total of 190) from two distance education systems: the Arab Open University (Bahrain and Kuwait) and The Pennsylvania State University World Campus (United States). In this research, culture was not viewed as a static single entity but as a dynamic process that is internalized by the individual by measuring cultural orientation through variables in relation to time (future time orientation) and relation (interdependence). Self-regulation refers to “self-generated thoughts, feelings and actions that are planned and cyclically adapted to the attainment of personal goals” (Zimmeraman, 2005, p. 14). It was measured through six variables representing meta-cognitive and motivational aspects of self-regulation. These variables were planning, self-checking, effort, self-efficacy, help-seeking, and time and environment management. The validity of cross-cultural comparisons was established by using back-translation and multiple group confirmatory factor analysis. In addition, construct equivalence were established for all research constructs.

Results

Two Multivariate analyses of variance (MANOVA) were conducted to answer the first two questions about group differences between Arab and American distance learners. For the self-regulation variables
MANOVA revealed a significant multivariate effect for group with Wilk’s lambda=.612 and p<.000. For cultural variables, MANOVA also revealed a significant multivariate effect for group, Wilk’s lambda=.931 and p<.000. In other words, in the population, there were significant differences between Arab and American distance learners in the way they regulate their learning and in their cultural orientation towards time and group interdependence. American students scored significantly higher than Arab students on planning, monitoring, effort, time and environment management and self-efficacy, while Arab students scored significantly higher than American students on help. American students scored significantly higher than the Arabs on both group interdependence and future orientation. While it was expected that American students will be more future oriented, it was surprising to find that there were also more group interdependent, which is more associate with collective cultures unlike the American individualistic culture.

To answer the third question, structural equation modeling was used to investigate the relationship between cultural orientation and self-regulation. To establish the final and best fitting model, structural equation model building strategies were used. In addition, each component of the model as well as measurement invariance across the two groups was established first. Due to the short nature of this research summary, only the final model is described here. In this best fitting model, only future orientation explained variances in self-regulation. Group interdependence was not found to be significant and was excluded from further analysis. In this model, self-regulation was subdivided into two factors: (1) meta-cognition consisting of planning, monitoring, and time and environment management, and (2) motivation consisting of effort and self-efficacy. Help was not found to be measurement invariant across the two groups and was not included in the final model. American students did not conceptualize help as part of their self-regulation whereas Arab students did. This model fit well for both groups. Fit indices were: $\chi^2(16)= 20.55$, $p=0.20$, NNFI=0.96, CFI=0.99, and RMSEA=0.055 with 90% confidence interval 0.00 and 0.12. Future orientation significantly predicted both meta-cognition and motivation for both Arabs ($\lambda=0.44$, SE=0.06 for meta-cognition and $\lambda=0.34$, SE= 0.06 for motivation) and Americans ($\lambda=0.46$, SE=0.09 for meta-cognition and $\lambda=0.31$, SE=0.09 for motivation).

**Discussion and Conclusions**

Results from this study confirmed that as a construct self-regulation in distance education environments had an equivalent structure for both American and Arab students. It consisted of two factors: meta-cognition and motivation. Meta-cognition consisted of planning, monitoring, and time and environment management, and motivation consisted of effort and self-efficacy. The only difference in the self-regulation construct was in help-seeking, which was found to be part of Arab students’ self-regulation and not American students’ self-regulation. Managing the support of others through help-seeking behaviors is considered an important attribute of successful self-regulators (Pintrich, et al., 1994). However, seeking help is also perceived a threat to learner’s desire for autonomy and perceived self-confidence (Ryan, Pintrich & Midgley, 2001). Contradictory to this, in distance education Moore (1972) explains that autonomous learners will temporarily surrender their control over their learning process if they establish a need for help. From a cultural perspective, since the American culture is more individualistic than the Arab culture, it was expected that American students are more independent and self-reliant than Arab students. Therefore, they will desire more autonomy than Arab students. Thus, they may seek less help than Arab students.

In addition, this study established a positive direct effect of future-orientation on both meta-cognition and motivation of students in distance education courses. In other words, more future-oriented individuals plan for their study, monitor their progress, manage their time and environment, have higher self-efficacy and try to maintain their effort. These processes of self-regulation can be used to devise proximal self-regulation strategies and tactics. For example, students can create proximal sub-goals to eventually achieve their personally valued goals. They should realize the instrumentality of completing and

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submitting an assignment in an online course on time to the achievement of their sub-goal of passing the course successfully. Results on future orientation between Arab and the American students were consistent with results from the GLOBE research, which covered 62 cultures through the collaboration of 170 researchers (House, et. al., 1999). In GLOBE, Kuwait, an Arab country, was categorized among the countries with the least future orientation, while the Unites States was in the second highest category of courtiers with the highest future orientation (Ashkanasy et al., 2007). In conclusion, there is more to learn about the complicated effect of culture on the learning process at a distance and the ways through which this effect will direct how distance educators structure and deliver their courses. A conscious awareness of the effect of culture will result in a smoother and potentially more successful experience for learners.

References


About the Presenter

Aisha S. Al-Harthi is an assistant professor at Sultan Qaboos University in the Sultanate of OMAN. She has a PHD in Adult Education with a focus on distance education from The Pennsylvania State University and a master degree in Continuing and Vocational Education from The University of Wisconsin-Madison. Her research interests include cultural issues in online learning, learner self-regulation and vocational secondary education.

Address: College of Education
Sultan Qaboos University
P.O.Box 32, Al-Khoudh,
PC.123, OMAN

Email: alharthi22@yahoo.com; asa@squ.edu.om
Phone: +96824143194
Fax: +968 24413817