Cohorts, Learning Styles, Online Courses: Are they important when designing Leadership Programs?

Diana Garland, Associate Director
Academic Outreach
Southwest Missouri State University
dianagarland@smsu.edu

Barbara N. Martin, Professor
Educational Administration Department
Southwest Missouri State University
bnm919f@smsu.edu

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ABSTRACT

This mixed design study investigated the learning styles of 70 graduate students in leadership programs delivered in either a traditional or a cohort mode. The data were examined to determine if a relationship between the students’ learning style and the type of delivery mode existed. Five percent of the participants were interviewed regarding their perceptions of the effectiveness of the cohort design. Implications for design and delivery of leadership programs is significant.
Fifty percent of doctoral students in educational administration programs do not complete their degree programs (Tinto, 1993). In addition, successful completion of the doctorate is generally contributed to the relationships between the students and faculty (Green & Kluever, 1997). Dorn and Papaleis (1997) noted that cohorts have had a significant impact on the retention of students. They attribute this to the collaboration and the mentoring that is developed between students. They also noted the value of team building in the improvement of task completion for doctoral students. Cohorts have also appealed to adult learners because of the peer support aspect of the structure (Donaldson, Scribner & Perkins, 2001). Concurrently, the “Distance Revolution” has created a number of challenges and opportunities for institutions of higher education as well (Ally, 2001; Celente, 1997; Grasha & Yangarber-Hicks, 2000). The key to the success of this revolution is the building of learning communities that will meet the needs of the diverse student population enrolling in online courses. Particularly important to the developers of these courses are the diverse characteristics of online students. Threlkeld and Brzoska (1994) purported, “A learner analysis of the potential audience should be conducted prior to course development. This learner analysis should include information about demographics, learner styles, motivations, and cultural background of the student” (p. 54).

While there has been significant studies done on the advantages and disadvantages of the cohort design limited research has been done to explore this construct with the variables of on line courses and student learning styles. In fact .Grasha and Yangarber-Hicks (2000) noted that, “The literature on the connections of technology to teaching and learning styles is not well developed” (p.7). Valenta, Therriault, Dieter,
and Mrtek (2001) concurred by stating, “Further research is necessary to understand how learning styles contribute to the experience of online education” (p. 120). Since, at this time, there have not been a significant number of studies identifying the learning styles of the online student nor any in-depth analysis of the type of class delivery format online students desire this study has significant implications for practitioners. The research questions investigated were: (1) Is there a difference in the learning style of students in a cohort / non cohort delivery model? 2) Is there a relationship between a student’s learning style and the type of classroom delivery? and (3) Is online learning a factor in the relationship between learning style and the type of classroom delivery?

Conceptual Organizers

*Cohort Structure.* Students learn through working together (Brown & Duguid, 1991) and becoming a part of a larger community of learners (Brown & Campione, 1990). A community of learners is perpetuated by the variability among the learners, the strong link between learning and the social norms of the group (Levine & Moreland, 1991; Moreland & Levin, 1989). Students construct knowledge; they do not take it in as it is disseminated, but rather they build on knowledge they have gained previously. They benefit from working together, and they may learn best from teaching each other (Major & Palmer, 2001), Norris (2001) defined four components of cohorts as learning communities: interactions between and among the students and the faculty; a shared learning purpose (Senge, 1990); interdependence; and opportunities for individual growth. As Edens (2000) noted, “A new approach [in classrooms] emphasizes the students' active role in constructing knowledge and students' actively engaging in inquiry and problem solving, typically in a collaborative framework”. An effective delivery
system of educational administration is the cohort (Barnett & Muth, 2001; Donaldson, Scribner & Perkins, 2001). Over half of the educational administration programs in the United States currently use a cohort model (Barnett & Muth, 2001). With the resurgence of the cohort model, researchers have begun to examine the advantages and challenges of this program structure (Barnett & Muth, 2001).

_Learning Styles._ Yu, Kim, and Roh (2001) asserted that crucial factors for pedagogical decisions in the instructional design process for online courses must include learners’ general characteristics and learning styles. Eastmond (1995) found the following strategies critical to success in electronic learning: becoming comfortable with the technology, determining how often to go online, dealing with textual ambiguity, processing information on or off line, seeking and giving feedback, and using one’s learning style to personalize the course. Therefore, distance learning asynchronous online courses should be carefully designed to assist with the construction of knowledge by supporting individual learning styles and by showing learners the links among pieces of information (Dede, 1996). Since learner characteristics, such as learning style, are major factors in the achievement and satisfaction level of the distance learning student, information regarding the students preferred learning style should influence how the course is designed and the type of technology to be used (Phipps & Merisotis, 1999).

_Online Learning._ Students who were successful in distance learning courses are generally self-directed and independent learners (Wellburn, 1999). Connick (1999) further reported that students who were successful as distance learners were highly motivated, had good time management and organizational skills, were independent, were active learners, could adapt to new learning environments, and had the discipline to study
without external reminders. Eastmond (1995) earlier found that strategies critical to success in electronic learning were the students’ level of comfort with technology, ability to process information on or off line, ability to seek and give feedback, and the ability to use one’s learning style to personalize the course. Online courses therefore should be designed to assist with the construction of knowledge by supporting individual learning styles and by showing learners the links among pieces of information (Dede, 1996). Phipps and Merisotis (1999) asserted that, “The research does not take into consideration how different learning styles of students relate to the use of particular technologies” (p. 6). Further, understanding of the interaction between how the learner, the learning task, and a particular technology interact was limited. Since learner characteristics, such as learning style, are major factors in the achievement and satisfaction level of the graduate student, information regarding the students preferred learning style should influence how the course is designed and the type of delivery system to be used.

Methods

Participants. The sample for the study consisted of 75 graduate students enrolled in educational specialist or doctoral graduate program. Each of the courses was presented partially asynchronously through the Internet. The nonprobability sample consisted of students enrolled in a cohort-designed program and those in a traditional formatted program. The cohort courses were matched with the non-cohort based on the course subject matter and were considered at or near the same level of difficulty.

Data Collection and Instrumentation. Two research instruments were used to gather for the learning style data. The 1993 paper version, the Kolb Learning Style Inventory IIa, was administered to the students. Semi structured interviews were
administered to 10% of the students to analyze student satisfaction of the class delivery model (cohort/non-cohort) ascertain satisfaction with the online delivery of both programs. Lastly the demographic information on participants was gathered from university records and the students.

Data Analysis. A one-way MANOVA was used to determine differences between the two groups of students. A second focus concentrated on the students examined if there was a relationship between the students perceived learning style and the satisfaction of the class delivery. To determine if there was a relationship a bivariate analysis was performed resulting in a Pearson correlation coefficient matrix. Additionally, the data for the learning styles of students were divided by delivery structure and two bivariate analyses were performed to determine if class delivery was a factor. A critical value of .05 was used to determine statistical significance.

Preliminary Findings

Initially, this research study found the learning style of the cohort student and the learning style of the non-cohort student to be different. The cohort student reported characteristics of Kolb’s assimilating learning style, while the non-cohort student reported the characteristics of Kolb’s diverging learning style. There was not a significant relationship between the learning style and student satisfaction. However, when the data was divided by classroom delivery format the satisfaction of the students in a cohort format increased. This investigation provided additional confirmation regarding the relationship between learning style, student satisfaction, and classroom delivery. The instructor must be aware of how discussions, teamwork, and grouping of students are affected by learning styles. These findings, that the use of a cohort program delivery, can
be a factor in online learning supports the need for including cohort design in building and designing distance learning courses and programs.

Further Issues to Investigate

*Questions/themes.* For k-12 and higher education institutions to be successful for all students, a learning culture that is characterized by collaboration, peer support, and effective use of technology must exist, along with leadership departments intensifying their efforts to create meaningful research based leadership preparatory programs. By creating leadership programs that, meet the needs of learners in such a way, that the completion rate is increase is needed. By examining the student learning style, cohort delivery structure and effective use of online course perhaps a more comprehensive picture of what is truly needed to develop an effective leadership preparation program can be revealed. Within this particular context the authors’ wish to address the following questions/themes:

- What are the characteristics of “effective preparation programs” and how do they respond to contextual conditions (i.e., student learning style, technology, cohort structures)?
- What implications do assessing the effectiveness of cohort-designed programs the lenses of learning styles and online course have on graduate student learning and effective leadership preparation programs?
- What are the critical features of meaningful and appropriate cohort graduate programs and how should they be designed?
References


at the Annual Meeting of the University Council for Educational Administration, Cincinnati, OH.


