Identifying Agricultural Communications Photography Students' Learning Styles

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Introduction/Need for Research

Photography is offered as an undergraduate course in six agricultural communications (ACOM) programs nationwide (Cannon, Buck, & Specht, 2016) and is taught in two main course formats – classroom-based and field-based (Kennedy et al., 2018). The use of experiential instruction methods in photography encourage students to fulfill course learning objectives through hands-on practice, which results in photography skill improvement (Horner, 2016). Texas Tech University teaches an entry-level digital photography course in both formats within its ACOM program. Although the course uses the same learning outcomes, assignments, and instructor in both formats, the two-week, field-based course design utilizes field trips and hands-on instruction during the summer to teach photography, while the traditional, classroom-based semester requires students to shoot images on their own time. Kennedy, Akers, and Jackson (2017) found students enrolled in a field-based digital photography course perform better and have an increased understanding of photography skills than students in a classroom-based instructional format. Because students can choose which course format they want to enroll in, the possibility for self-selection bias exist when evaluating performance between the two formats. As a follow-up to these findings, the purpose of this study was to identify if there are differences in the learning styles of ACOM students who choose to enroll in a field-based format versus those who enroll in a classroom-based format of a digital photography course.

Theoretical Framework

The theoretical framework of this study was Kolb's (1984) Theory of Experiential Learning, which states, "knowledge is created through the transformation of experience" (p. 41). Within experiential learning theory, a four-stage cycle that includes (1) concrete experience, (2) reflective observation, (3) abstract conceptualization, and (4) active experimentation outlines when significant learning occurs. Kolb and Kolb's (2005) learning styles inventory (LSI) identifies the relative emphasis a learner gives each stage within the cycle. These four learning styles – accommodating, diverging, assimilating, and converging – each represent a combination of two preferred stages from the cycle. The LSI is important when examining experiential learning, especially in higher education (Baker, Robinson, & Kolb, 2012).

Methodology

Thirty-eight students enrolled in an ACOM digital photography course in 2018 were given Kolb and Kolb's (2005) LSI 3.1 instrument to identify students' preferred learning styles in the field-based (n = 14) and classroom-based (n = 28) course formats. The instrument was administered as part of a classroom activity at the end of each semester. The LSI 3.1 instrument allows students to rank order statements that coincide with each of the four stages in the experiential learning cycle in manner that reflects their personal learning preferences. Following completion of the instrument, students' scores for each cycle stage were plotted on the LSI profile to identify their learning style preferences. Descriptive statistics were run using SPSS to identify the frequencies of each learning style to determine the dominant learning style among the two course formats.

Results/Findings

Within the classroom-based and field-based sections of an undergraduate ACOM digital photography course, students were most likely to emphasize the active experimentation (M =

29.00, *SD* = 3.25) and concrete experience (*M* = 26.38, *SD* = 4.39) stages within the LSI instrument. Additionally, 15 (53.6%) students in the classroom-based format and 11 (78.6%) students in the classroom-based format preferred the accommodative learning style (see table below). This learning style emphasizes concrete experience and active experimentation. Students who prefer this learning style enjoy doing things, carrying out plans and tasks, and having new experiences. Further, these students thrive in situations where they must adapt to changing circumstances (Kolb & Kolb, 2005). The convergent learning style, which relies on the dominant abilities of abstract conceptualization and active experimentation, was the preference of two (14.3%) field-based students and 10 (35.7%) classroom-based students. Convergent learners prefer problem-solving, decision-making, and practical applications of ideas.

Dominant Learning Styles of ACOM Photography Students (n = 42)

Learning Style	*n*	*%*
Accommodative (CE/AE)	26	61.9
Classroom-based	15	53.6
Field-based	11	78.6
Divergent (CE/RO)	2	4.76
Classroom-based	1	3.6
Field-based	1	7.1
Assimilative (RO/AC)	2	4.76
Classroom-based	2	7.1
Field-based	0	0.0
Convergent (AC/AE)	12	28.6
Classroom-based	10	35.7
Field-based	2	14.3

Conclusions

The LSI results suggest the majority of ACOM students enrolled in the undergraduate digital photography course, regardless of the course format (classroom-based or field-based) they choose to enroll in, prefer hands-on, learn-by-doing learning experiences. While both course formats use hands-on activities, the field-based course format provides more opportunity for on-site application and learn-by-doing experiences than the classroom-based format. These results also suggest the field-based course format is better suited to ACOM students' learning styles, who have been proven to perform better in field-based photography courses (Kennedy, Akers, & Jackson, 2017).

Implications/Recommendations

These findings provide a baseline understanding of students' learning preferences in the course and supports Horner's (2016) recommendation that hands-on, experiential instructional methods in a photography course can encourage students' learning and skill improvement. Regardless of course format, the use of experiential learning activities, including field trips, campus excursions, guest speakers, and in-class critique (Horner, 2016), should be implemented in ACOM digital photography courses to meet students' learning style preferences. Further research of students' learning styles is needed to examine how students' learning styles influence student participation in field-based courses, performance in experiential course formats, and perceptions of experiential activities.

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