Assessing the Critical Thinking Styles of International Faculty

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Introduction

In addition to subject matter skills, today's college students need reasoning, problem-solving and thinking skills. Therefore, faculty need to understand the importance of those skills for students and themselves. As U.S. faculty engage in working with counterparts in foreign institutions to enhance curricula, teaching, and student learning, knowing more about faculty critical thinking styles should lead to more relevant professional development in international university settings. Critical thinking is a concept that addresses reasonable and reflective thinking that is purposeful and goal directed (Lamm & Irani, 2011). Students must be directed toward higher levels of cognition, and instructors must address this issue in today's learning. University agricultural teacher educators should take the lead in these efforts, considering the diverse subjects and audiences within agriculture (Whittington, 1995).

Conceptual Framework

Researchers at the University of Florida developed the Critical Thinking Inventory (UFCTI) to help educators identify their Critical Thinking (CT) style and to utilize that understanding in their teaching (Lamm & Irani, 2011). Other researchers have utilized similar instruments, primarily in describing student critical thinking abilities and relationships with other teaching and learning strategies and attributes (Rollins, 1990; Cano & Martinez, 1991; Burton & Garton, 2007; Lamm, Rhoades, Irani, Roberts, Unruh Snyder, & Brendemuhl, 2012; Burbach, Matkin, Quinn, & Searle, 2012). Burbach, et al. (2012) concluded that teachers can influence their students' critical thinking. Further, they posited agricultural education instructors, including college instructors, need to provide opportunities for students to practice their critical thinking skills. Similar discussion by Lamm, et al. (2011) included a variety of concepts regarding how critical thinking is related to other important learning strategies. They concluded that educators need to be aware of critical thinking characteristics and attend to those students who may be lacking those skills. However, most university instructors, in the U.S. and abroad, are well-trained in a specific discipline and not proficient in a broad understanding of learning, including critical thinking. Faculty must first become aware of the concept of critical thinking so they, in turn, can utilize new knowledge in improving their teaching and, therefore, student learning.

Methodology

This study was conducted at King Saud University (KSU) in Riyadh, the Kingdom of Saudi Arabia. University faculty participated in five days of workshops focused on curriculum and teaching and learning. Men and women faculty attended separate but similar workshops. The purpose of the study was to ascertain the critical thinking preferences of university faculty in a foreign institution. Specifically, the project was designed to 1.) determine the critical thinking styles of the faculty and 2.) to compare the men and women faculty on the measure, utilizing the UFCTI to ascertain the critical thinking styles of the faculty. The 20-item instrument was administered in person using a paper form; no instruction related to critical thinking occurred in the workshops prior to the inventory administration. The CTI is a validated measure of CT style (Lamm & Irani, 2011). Results were analyzed for the separate groups, male and female, which is common in the Kingdom. The instrument allows participants to be described as those Seeking Information and those of Engagement (UFCTI, n.d.). The inventory measures critical thinking

style rather than skill on a continuum from seeking to engaging. According to the developers, people who score higher on the Seeking Information side of the scale are aware of their own predispositions and biases and recognize their current opinions and positions have been influenced by their environment and experiences. They are "hungry learners," open to the opinions of others and take care to seek out divergent points of view. Seekers have a desire to know the truth, even if the truth conflicts with presently held beliefs and opinions. People who score higher on the Engagement side of the continuum are aware of their surroundings and able to anticipate situations where good reasoning will be needed. They look for opportunities to use their reasoning skills and are confident in their ability to reason, solve problems, and make decisions. They are also confident communicators and able to explain the reasoning process used to arrive at a decision or problem solution.

Findings

In describing the UFCTI, Lamm and Irani (2011) indicate that higher UFCTI scores (78.5 and higher) indicate a "seeking information" style and lower scores (78.4 and lower) indicate an "engagement" style. Several differences between female and male KSU faculty were identified. More female faculty indicated on average a slight tendency toward the seeking style. Individually, 14 of the 22 females indicated a seeking style and 8 indicated an engaging style of critical thinking. UFCTI scores for female faculty ranged from 73.8 to 89.7 with a mean score of 79.9. More male faculty indicated a slight tendency toward the engaging style, with 21 of the 39 males indicating the engaging style and the remaining18 indicating the seeking critical thinking style. UFCTI scores for the male faculty ranged from 66.4 to 90.9 with a mean score of 78.3.

Conclusions

Overall, the two groups of faculty in the study were similar. The overall means for both groups were very close to the dividing point on the scale between seekers and engagers. Within each group, there was more variability in scores among the male faculty than the female faculty.

Recommendations

Unfortunately, there are no studies available that would allow for a comparison between U.S. faculty and faculty outside the U.S. One avenue of inquiry could address U.S. faculty critical thinking styles and examine any differences between the two groups. As Perry, Retallick and Paulsen (2014) suggested in their study, faculty need expertise in critical thinking and how that relates to their students' style and the teaching strategies they employ. Future faculty workshops in the Kingdom should focus on how faculty Critical Thinking styles can be used to inform their teaching. Administering the CTI to their students would also provide insight into student learning needs. As Lamm, et al. (2011) implied, agricultural educators should be at the forefront in assisting other faculty in utilizing what is known about critical thinking, teaching and learning.

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