A Cooperative Learning Team Approach to Motivating AET Instructor Pedagogical Training

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Introduction

Improving the ability of Agricultural Education and Training (AET) tertiary programs to structure and deliver high quality programming is an imperative and requires the close involvement of the instructors (Yambayamba, Chakeredza, Yaye, Aucha, & Macala, 2013). However, most agricultural graduate programs don't include training in instructional methods, creating lesson plans, or assessment techniques and AET instructors are usually forced into learning the craft of teaching through trial and error. This gap in training often leads to lower success rates for students taught by those AET instructors and represents a constraint on the performance of the agricultural sector (Ragasa, Babu, Abdullahi, Abubakar, 2010). Complicating matters further is the fact that there are frequently challenges associated with motivating AET instructors to participate in pedagogical professional development. The top-down management of educational institutions and strict adherence to rules and control of personnel offer considerable barriers to effectively motivating AET instructors to participate in professional development (Davis, Ekboir, & Spielman, 2008). The fact that AET instructors are poorly compensated for their work and have few other benefits is also a hindrance to driving motivation. Given the aforementioned challenges, constructing and providing pedagogical professional development for AET instructors should support the development of their commitment to their students, institutional program, and colleagues (Rivera, 2011).

Conceptual Framework

The CLT approach that was employed for this research project was based on a cooperative learning conceptual framework. Cooperative learning is a pedagogical set of strategies which require learners to work in small teams in order to create outputs or gain new understandings and skills. Cooperative learning pedagogical strategies have a well-supported research base and are widely used across the globe at all levels of education and in a wide variety of subject areas (Johnson, Johnson, & Smith, 2014; Schunk, 2008; Slavin, 2014). Further, research reveals that cooperative learning has been found to promote: a) improved motivation and self-esteem; b) more frequent use of higher level reasoning strategies; c) higher levels of achievement and productivity; and d) serve as an effective means for building interpersonal bonds and team identity (Francisco, 2013). Based upon their research investigating the implementation of cooperative learning, Johnson and Johnson (2009) have posited that five variables or tenets mediate the effectiveness of cooperative learning: 1) positive interdependence; 2) individual accountability; 3) promotive interaction; 4) appropriate use of small group social skills; and 5) group processing.

The purpose of this descriptive study was to create information about the employment of cooperative learning as both a content and process component of AET instructor professional development in Nigeria. Within the scope of this study, cooperative learning was operationally defined as CLT processes and actions which included all five necessary tenets. The objectives of the study were to assess how AET instructors in Nigeria perceived the impact of a CLT approach on the development of their: a) pedagogical skills; b) motivation to improve their teaching; and c) ability to work effectively with colleagues. This study aligns with the research questions situated in priority area five of the American Association for Agricultural Education National Research Agenda (Roberts, Harder, & Brashears, 2016).

Methods

The target population for this study consisted of AET instructors working within the Division of Agricultural Colleges at Ahmadu Bello University in Nigeria who participated in a three week USAID sponsored professional development training program (N=54). All 54 of the potential research participants consented to taking part in the research study. The training participants taught in a range of faculties including agronomy, veterinary medicine, soil science, fisheries, animal science, biochemistry, and microbiology. Training participants were sorted into CLTs of four to five instructors based on their specialized fields of study. Once sorted, the cooperative groups worked on a series of smaller assignments and tasks that were additive components of a larger more comprehensive planning project. A researcher developed survey instrument used to collect data for the study consisted of 36 summative rating scale items in four separate subscales and a demographic section. Expert AET reviewers from Nigeria were consulted to affirm the content validity of the survey instrument. Based on the data collected the internal consistency of the survey instrument was estimated to be as follows: entire instrument = .72; subscale 1 = .78; subscale 2 = .67; subscale 3 = .73; and subscale 4 = .70.

Findings

The AET instructors agreed strongly that the CLT experiences facilitated their learning and output of instructional units. The AET instructors perceived that their commitment to achieve their training goals was fortified because of their CLT experiences. The AET instructors perceived that the connections which resulted from their CLT experiences were important to fostering their motivation to improve their teaching. The AET faculty perceived that accountability structures and reporting mechanisms helped to validate their efforts.
the AET instructors perceived that the CLT processes improved their collegial problem solving and grew their motivation to work with their teammates.

Recommendations

High quality instruction and functional AET systems are pivotal to the growth and development of any nation. The training program utilized a CLT framework for modeling an effective instructional strategy, organizing instructional sessions, and improving the motivations of the AET instructor participants. The findings illustrate that the CLT framework had positive impacts on the training participants. Future research should include pre and post instructional observations and critiques of instruction to provide more in depth information about how the AET instructor participants change over the course of the training. In addition, interviews with participants would likely lead to information related to why the participants believe they experience their perceptions. Future research should consider the use of an established instrument for measuring motivation so that levels of participant motivations may be assessed. It is recommended that future research explore questions about the longevity of perceived improvements in collegial interactions. If the improved collegial interactions only last as long as the training program, what methods or incentives could be enacted to drive more permanent changes?

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