Proceedings for the National Conference on Learner-Centered Teaching

in collaboration with the

North Central Region of the
American Association for Agricultural Education

NCLCT in Coordination with
Purdue University & Langston University

Conference Host:
University of Missouri-Columbia

Review Process for the NC LCT/M.E.N.T.O.R.

This was the 7th National Conference on Learner-Centered and the 4rd year the NCLCT was co-hosted in collaboration with the North Central Region of the American Association for Agricultural Education. On behalf of the NCLCT and NC-AAAE Conference Planning Team, we offer sincere gratitude to the four colleagues who served as reviewers and evaluated this year's LCT submissions. A total of 14 LCT abstracts were submitted. Based on quality rankings and time allotted in the conference schedule, 12 abstracts were selected for presentations and two abstracts were accepted as posters at the 2022 North Central AAAE Conference. With a focus on building collaborative partnerships among 1890 and 1862 Land-Grant Universities, majority of the LCT presentations were authored or co-authored by faculty from 1890 Historically Black Colleges and Universities. We extend our sincere appreciation for Dr. Orlenthea McGowan and her colleagues at Langston University for providing leadership and support through the 1890 Capacity Building Grant (NIFA 2016-06658), "Building Future Faculty and Leaders through Culturally Responsive Learner-Centered Teaching Partnerships." Sincere appreciation is extended to Gaea Hock of Kansas State University for her assistance in the online review process.

Abstract Reviewers for 2022 NCLCT

Name	**Institution**
Aaron McKim	Michigan State University
Philip Lewis	Langston University
Martha Ravola	Alcorn State University
Monique Hovey	Purdue University

2022 NCLCT Co-Chairs and Review Coordinators

Orlenthea McGowan, Langston University
Rama Radhakrishna, Purdue University

LCT/M.E.N.T.O.R. PAPER Abstracts*

Concurrent LCT/M.E.N.T.O.R. Paper Presentations Session 1
Thursday, October 6, 4:20 to 5:00pm
Hinkson Room

Agricultural Education Curriculum Delivery and Learning Experiences in Africa – Techniques to Improve Learner-Centred Teaching In Nigeria and Eswatini

- Edwards Alademerin, Tunde Idoun, Mlondi Mkhonta

The Role of Field Based Experiences in Preparing Undergraduate Students in Human Sciences and Business for Future Careers

- Martha Ravola, Babu George, LaTasha Coleman

Concurrent LCT/M.E.N.T.O.R. Presentations Session 2
Thursday, October 6, 4:20 to 5:00pm
Grindstone Room

Balancing Student and Teacher Expectations in a Post-Covid Environment

- Elizabeth Anne Albright, Orlenthea S. McGowan, Neil A. Knobloch, Thomas A. Paulsen

Developing Resilient Educators through Ethical Decision Making Integrated with Self-Efficacy

- Adrienne Robinson, Kimberley Davis

Concurrent LCT/M.E.N.T.O.R. Presentations Session 3
Thursday, October 6, 4:20 to 5:00pm
Ridgeline Room

Engagement of students involved in study away programs through grouping strategies

- Ashley R. York, John D. Tummons, Alan G. Mathew

Feedback as a Formative Evaluation Approach to Minimize Implementation Fidelity and Maximize Evaluation Use in a Multi-institutional M.E.N.T.O.R. Project

- Rama Radhakrishna, Neil Knobloch, Levon Esters

Concurrent LCT/M.E.N.T.O.R. Presentations Session 4
Friday, October 7, 11:15 to 11:55am
2205A/B Room

Influential Reasons Students Choose Agricultural Sciences and recommendations to Increase Diversity

- Derek James

Integration of Client Projects and Human-Centered Design for Learner-Centered Teaching (LCT) in an Undergraduate Program Development Course

- Rebecca Mott, Amy Leman

Concurrent LCT/M.E.N.T.O.R. Presentations Session 5
Friday, October 7, 11:15 to 11:55am
2206A/B Room

Intervention & Resilience: The use of Learner Centered Teaching
- Phillip Lewis, Perry Sanders

Learner-Centered Approaches to Educational Practica/Early Field-Based Experiences
- Thomas H. Paulsen, Orlenthea S. McGowan, Neil A. Knobloch

Concurrent LCT/M.E.N.T.O.R. Presentations Session 6
Friday, October 7, 11:15 to 11:55am
2206C Room

Linking Communication and Program Theories to Develop Learner-Centered Strategies that Address Communication Challenges in a Multistate M.E.N.T.O.R Project
- Monique Hovey, Aaron McKim, Martha Ravola, Marilyn Bailey, Lavyne Rada, Rama Radhakrishna

LCT/M.E.N.T.O.R. POSTER Abstracts*

Developing a Learner-Centered Win-Win-Win Preservice Teacher Mentoring Program
- Thomas H. Paulsen

Experiencing Cultural Diversity through the Production and Sale of Ethnic Vegetables Using Hydroponic Grow Towers
- Annie Kinwa-Muzinga, Ngamboko P. Muzinga, Thomas H. Paulsen

*Please note LCT posters will be presented along with research and innovative idea posters.

Agricultural Education Curriculum Delivery and Learning Experiences In Africa – Techniques To Improve Learner-Centred Teaching In Nigeria and Eswatini

Prof. Edwards Alademerin
Dept. of Agricultural Education and Extension,
University of Eswatini,
Faculty of Agriculture,
Kingdom of Eswatini,
Southern Africa.
alademerin@uniswa.sz and ealademerin@gmail.com
+26876682818

Mr. Tunde Idoun
Dept. of Agricultural Science,
Tai Solarin University of Education,
Ijagun, Ogun state,
Nigeria.
tundeidoun@gmail.com
+2348067607059

Mr. Bandzile Kunene
Dept. of Agricultural Education and Extension,
University of Eswatini,
Faculty of Agriculture,
Kingdom of Eswatini,
Southern Africa.
bandzilekunene01@gmail.com
+26878125126

Mr. Mlondi Mkhonta
Dept. of Agricultural Education and Extension,
University of Eswatini,
Faculty of Agriculture,
Kingdom of Eswatini,
Southern Africa.
mmmkhonta@gmail.com
+26876967178

Agricultural Education Curriculum Delivery and Learning Experiences In Africa – Techniques To Improve Learner-Centred Teaching In Nigeria and Eswatini

Introduction & Need for LCT Strategy

Appropriate curriculum delivery and learning experiences are sine qua non for curriculum implementation in the schools system as they are to be well directed, focus more and are learner centred. This mode of curriculum delivery which specifically targets learners is to ensure proper bonding of the students with the concepts taught within and out of classroom situations thereby helping students to realise their full potentials. This paper is anchored on the theory of constructivism which says learners construct knowledge rather than just passively take in information. Learner-Centred Teaching (LCT) involves making students how to think, solve problems, evaluate evidence, analyze arguments, generate hypotheses and others in the concepts taught on a topic. The paper discusses further on techniques and strategies to improve LCT in schools.

Connection to Literature

Agricultural Education came into existence in the early 1900s in most countries of Africa. The nature and scope of the formal teaching of Agriculture in Nigeria started with the introduction of Western education in the country in 1842. However, in 1887, the education ordinance provided for increased government grants-in-aid for agricultural and industrial technical education activities. Fafunwa (1974) reported that the teaching of practical agriculture was an important aspect of the African traditional education system before colonial intervention. He further opined that agriculture was taught through the attachment of a learner to understudy a master-farmer.In the rural areas of Nigeria, pre-school and early childhood education through traditional means have been particularly appealing intervention by which parents on one hand and the teachers on the other have encouraged their wards' life participating in domestic subsistence agriculture. The primary objective of all technical and vocational education and training programmes is the acquisition of relevant knowledge, practical skills and attitudes for gainful employment in a particular trade or occupational area. The need to link training to employment (either self or paid employment) is at the base of all the best practices and strategies observed world-wide. In recent years, in view of the rapid technological advances taking place in the labour market, flexibility, adaptability, and life-long learning have become the second major objective. The third objective, which is particularly important for Africa, is to use TVET as a vehicle for economic empowerment and social mobility and for the promotion of good governance and regional integration (African Union, 2007). Agriculture is fundamental to life. By teaching it, learning it and practicing it, we relate with the discipline in totality. Agricultural education programmes in different countries differ in curriculum, course content, and the duration and methods of imparting theoretical and practical skills. This means that the emphasis which a country places on vocational agriculture in schools will be determined by the extent to which her economy depends on agriculture. Before the advent of the oil boom in Nigeria in the early 70's, agriculture was the greatest contributor to the economic development of Nigeria. But with the advent of the "oil-boom", agriculture- growing of crops and rearing of livestock for man's uses was relegated to the background by the government and the general populace in search of the Golden Fleece – the oil money (Alademerin, 1996).

Implementation of LCT Strategy

The Nigeria National Policy on Education (2013) explicitly states that teaching at the basic education level especially should be participatory, exploratory, experimental and child- centered. However, the teaching of agriculture at the primary and secondary school levels of our educational system is a mixture of trained professional teachers and others who through their interest or added responsibility find themselves in the classrooms and on the farms, hence resort to abstract teaching of concepts. In 1973 agriculture began as a subject at primary and secondary schools in In Swaziland (now Eswatini). The introduction of Agriculture intended to formulate a framework to

integrate agriculture into the occupational and academic aspirations of youth (Dlamini,1995). In Swaziland, according to Simelane, Mkhwanazi and Dlamini (1999), the teaching of Agriculture changed from Agricultural Science to Modern Agriculture and Prevocational Agriculture. Agricultural Science was mostly theoretical. In 1985 the Modern Agriculture Program was launched to replace Agricultural Science.

Implications:

The aim of pre-vocational agriculture was to provide education that would motivate and prepare learners for employment opportunities. Within the African continent and from opinions well supported by Bailey and Merritt (1997), the main core of learning experiences in agriculture in schools consists of three intra-curricular components which are: classroom instruction, experiential learning through supervised experiences, and leadership activities. When these three components are actualized through a well-designed integrated program, they provide a context for learning necessary contents and life skills to prepare students for adulthood, regardless of their ideal career areas. When the three-component model is implemented into school-based agricultural education, learners are well prepared and succeed in career choices in global agriculture. This enables the graduates to be competent in the workplace (Stone, 2014).

Agricultural Education is meant for learners to develop the following skills: decision making, development of decision–making skills, career and personal choices, better self-confidence and human relation, application of learned knowledge, time management, record-keeping and development of independence and promoting positive attitudes towards farming among the youth (National Research Council, 2012).

Future Plans

Fully abreast of the numerous advantages of LCT, Anand (2015) highlighted 7 main advantages viz: improves participation, improves retention of knowledge, boosts performance at work, develops problem-solving skills, fosters collaborative learning, makes learning more fun, and; facilitates personalized learning. *According to Chinese proverb "What I hear, I forget; what I see, I remember; what I do, I understand"* - Chinese proverb *"Mihil intellectu quod non fuit prius in sensu"* which literally means *"there is nothing in knowledge which has not first passed through the senses"* (Commenius, 1972). These aptly describe the concept of vocational education in our formal and informal settings. However, the teaching of Agriculture in most countries within the continent falls far below these thereby making the advantages elusive to both the teachers and the students. In Nigeria as with most African countries, most concepts in Agriculture are still taught in abstracts thereby making teaching-learning process cumbersome with uninspiring learning experiences. Over the years, some topics are difficult to teach and have not been traditionally appealing to the teachers themselves as they have poor background knowledge of the topics while at school. With the LCT in place in the school system, it is strongly believed that these topics which are sometimes 'skipped' will be appropriately taught and students will benefit maximally.

Nigeria education system as with what obtains in most African countries still practice the traditional model of education often regarded as "school-centered" or "teacher-centred". For example, many traditional approaches to schooling could be considered "school-centered," rather than student-centered, because schools are often organized and managed in ways that work well for organizational operations, but that might not reflect the most effective ways to educate students (Agofure, 2105).

To improve on the LCT in the African continent, the class size should be drastically reduced to allow for more concentration on the manageable population of students in each class, the use of ICT in teaching-learning should be improved so also the libraries to allow for more independent studies by students, and; staff of the Monitoring and Inspectorate sections of the Ministry of Education should be exposed and retrained on contemporary issues in education as most of these Inspectors are already out of tune regarding 21st century approaches to educational technologies.

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The Role of Field Based Experiences in Preparing Undergraduate Students in Human Sciences and Business for Future Careers

Martha Ravola, Ph.D.
Chair & Associate Professor
Department of Human Sciences
Alcorn State University
1000 ASU Drive
Alcorn State, MS 39096-7500
mravola@alcorn.edu

Babu George, Ph.D.
Professor & Interim Dean
School of Business
Alcorn State University
1000 ASU Drive
Alcorn State, MS 39096-7500
mravola@alcorn.edu

LaTasha Coleman, M.S., M.Ed.
Practicum/Tutoring Services Coordinator
Department of Human Sciences
Alcorn State University
1000 ASU Drive
Alcorn State, MS 39096-7500
mravola@alcorn.edu

The Role of Field Based Experiences in Preparing Undergraduate Students in Human Sciences and Business for Future Careers

Introduction & Need for LCT Strategy

Experiential learning pedagogies shift learning from a teacher-centered, knowledge-transfer approach to the learner as an active participant in the learning process (Kolbe & Kolbe, 2006; Morris, 2020). Experiential learning theory defines learning as "the process whereby knowledge is created through the transformation of experience" (Kolbe, 1984, p.38). Experiential learning is correlated with an increased likelihood of attending graduate school, graduation rates, employment outcomes, and acquisition of skills that are relevant to career success, including communication skills, self-confidence, appreciation for community, and professional growth (Bradberry & Maio, 2019).

Internship is a type of experiential learning and provides field based experiences that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting. Internships give students valuable on-the-job practical experience, which cannot be fully simulated in the classroom (Elarde & Chong, 2012). Consequently, interns are better prepared to cope with the challenges of the work environment and their job performance may be accelerated (Maertz et al., 2014). Moreover, internships provide students with the opportunity to apply the skills that they learn in classroom settings to the world of work (Green et al., 2011). What distinguishes internships from other forms of active learning is that there is a degree of supervision and self-study that allows students to 'learn by doing' and to reflect upon that learning in a way that achieves certain learning goals and objectives. Piaget called learners 'lone scientists' who go out into the world and investigate to learn (Piaget, 1968).

Many companies will use interns as the primary recruiting pool for hiring. In fact, 68% of interns are offered a full-time job upon internship completion, and of those, more than 81% accept the offer; also, since 2016, employers report consistent yearly increases in intern hiring projections. (Galbraith & Mondal, 2020; NACE, 2020). As academic programs prepare students for future careers, internships/student field placement/practicum experiences play a critical role in student's future career success, academic knowledge and professional skills and preparation for advanced degrees. Practicum/internships being the culminating experience, students are expected to demonstrate knowledge and competencies acquired through the program by applying it in their Practicum setting. The goal of Practicum is to prepare students for career readiness which includes; pre-professional experience, knowledge about their career prospects, career readiness and eventually either to secure employment at the site or elsewhere that aligns with their career preference.

Approach

This abstract will highlight some of the learner-centered strategies (LCT) and activities implemented in Practicum/Internships in two courses in two distinct disciplines, Human Development and Family Science and Business at [State] University. The two courses examined dimensions such as functional knowledge, educational standards, planning, designing and organizing, service delivery, reflection on self-assessment and professional competencies such as time management, problem solving skills, communication, critical thinking, reflection etc. To track

these competencies a systematic process for Practicum was developed. Through this process, student received practicum information from the first year of joining the program. They were provided opportunities to network with Professionals in the field through departmental and other events, Additionally, during academic advisement, the advisor discussed career aspirations and provided guidance on career opportunities. The advisor also determines students' preparedness for Practicum and in conjunction with the Practicum coordinator, the student Practicum site is determined. There on, the Practicum instructor and Practicum coordinator systematically monitor, guide and assess the student performance. The purpose of this cross-disciplinary comparison was to explore commonalities and also show how two different disciplines could enhance pre-professional development of undergraduate students through collaborations. Seven key elements that focused on LCT were examined. These were preservice, foundational knowledge, educational standards, planning designing, and organizing, engagement with youth service delivery, reflection, self -assessment, and professionalism. Data from the Practicum Evaluation, Site Evaluation, Site Supervisor's Evaluation of the Student, Student's presentation and Course evaluation etc. were used to inform the results.

Results and Lesson Learned

Outcomes of the study demonstrated the commonalities and distinctiveness in the two programs. The one overarching unifying factor is the ultimate and common goal of instruction, which is to prepare professionals for the future in the land-grant educational system.
We found it interesting to compare two distinct field-based experience designs adopted by two disciplinary fields. Although the broad objectives were similar, the pathways were very different. In a way, the pathways were representative of the epistemology of knowledge that each of these fields held. In human sciences, there is a greater level of appreciation for generalizable knowledge than in business; the business student interns, their mentors, and the professors, allowed them to concentrate on a specific business problem and troubleshoot it in a manner that addresses (only) that specific problem. Problem based learning strategies have proven to be the best practices for field based training. Regarding the process, it was noticed that the interns did not hear from the companies as to whether their solutions to the managerial problem were implemented and, if so, what the outcomes were. It was also observed that some students would have benefitted from a more detailed level of handholding. Since mentors are busy business executives, one solution is to offer a course on Business Consulting in the undergraduate / graduate curriculum and prepare the students better before they undertake the internship. To remedy this issue, using a more structured mentoring process and evaluation process will probably be helpful.

Implications for Collaboration and Use of LCT Strategies

This study has helped identify constraints in student learning among the undergraduate students in the Human Sciences. One significant constraint was that all students did not possess the same level of writing competencies. However, it is an opportunity to revisit the curricula and infuse focused activities to enhance writing skills. Employing the peer review writing will enhance engagement and help infusion of LCT as a strategy. It also paved a way for future collaboration for the two academic programs. This novel endeavor of two faculty members co-engaging in the learner-centered practices to seek commonalities and differences proved beneficial for the potential it holds to leverage institutional resources to prepare professionals for future careers. Futuristically, the Potential exists to formalize collaborations between two professional streams will possibly yield new career options and facilitate co-learning opportunities, increase capacity for faculty professional development, academic program growth, fortifying outreach efforts and drawing extramural funding for mutual benefit for the two schools. It is anticipated that the results of this study will benefit academic program leaders and faculty to design field based courses with measures to determine the level of student preparation for the field and identify areas of challenges that need to be addressed throughout the curriculum.

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Balancing Student and Teacher Expectations in a Post-Covid Environment

Elizabeth Anne Albright, Ph.D.

Assistant Professor and Acting Chair Psychology Department

School of Education and Behavioral Sciences

Langston University – Langston Campus Office: 405-466-3266

elizabeth.albright@langston.edu

Orlenthea S. McGowan, Ed.D.

Professor/Project Director and Interim EPP Department Chair

School of Education and Behavioral Sciences

Langston University-Tulsa Campus Office: 918-877-8159

osmcgowan@langston.edu

Neil A. Knobloch, Ph.D.

Professor

Department of Agricultural Sciences Education and Communication

Purdue University Office: 765-494-8439

nknobloc@purdue.edu

Thomas H. Paulsen, Ph.D.

Professor and Head, Applied Agricultural and Food Studies

Morningside University Campus Office: 712-274-5489

paulsent@morningside.edu

Balancing Student and Teacher Expectations in a Post-Covid Environment
Introduction, Need for LCT Strategy, and Connection to Literature

Student expectations have been an important component of learner-centered teaching. Navigating relationship-building and connections between students and instructors important to culturally responsive teaching (Bakerville, 2009). This can be challenging in a diverse environment because of differences in expectations students and instructors have of each other (Moore, et al., 2011). These differences were exacerbated during the Covid-19 pandemic (Bozkurt et al., 2020). The large-scale shut-down quarantine resulted in moving face-to-face instruction to a completely virtual learning environment with the stresses of the pandemic. Inclusive learner-centered instructors navigated the shift to a virtual learning environment with concerns about their students and how they were learning. This transition was abrupt and complicated with the trauma of shifting to online learning during a global pandemic. In doing so, instructors informed their strategies using social and emotional learning and Culturally Responsive Instruction (CRI) (Ladson-Billings, 2021).

However, many instructors in higher education did not have the knowledge/training in learner-centered teaching, culturally responsive teaching, and trauma informed teaching and higher education has largely ignored the need for culturally responsive education, especially in online environments (Vincent-Layton, 2022). This was a new experience for the instructors who had some training, and likely overwhelming for instructors who had limited to no training to respond to the stresses the pandemic created.

Purpose and Objective

The purpose of this abstract was to examine the change in expectations between students and instructors after the Covid-19 pandemic. This shift of expectations has led to tensions between students and teachers as educational institutions strive to return to pre-pandemic expectations. This collaborative discussion seeks to discover how students and instructors have found a balance between different and sometimes conflicting expectations.
Four institutions in higher education met and discussed the challenges they face regarding students' expectations, which have been affected by the Covid-19 pandemic. Each instructor at different institutions was asked to examine the strategies they use to engage students in culturally relevant instruction and what have been the challenges and tensions between students and instructors because of the changes in expectations due to the Covid-19 pandemic. Instructors were asked to reflect on strategies they used to be learner-centered, be culturally responsive, navigate attendance and face-to-face engagement, and complete class assignments in a timely manner. Instructors were asked to share any tensions they have experienced through the transition of post-Covid-19 instruction and how they navigated these tensions and transitions.

Attendance: Students wanted flexible attendance options. Although instructors expected students to physically attend class, some students shared they wanted to attend virtually. Students shared they had other challenges in their lives that kept them from attending class (e.g., anxieties, work, car problems). Students expected instructors to accept (aka, approve) of these reasons for not attending class. Instructors communicated with students they expected a written explanation and medical excuse for missing class. Instructors reached out to students and expressed concern and interest in their success in the courses. Further, instructors made decisions regarding missed days of class and make-up work based on their written expectations in the syllabus.

Etiquette: Cameras on, etc. In some cases, departmental expectations of certain protocols regarding online attendance were established. Instructors communicated with students that when in attendance via video interaction, cameras were required to be on during the entire class time and students would be expected to be visible in their cameras. Unfortunately, lack of consistent strong internet signal resulted in poor transmission quality for both instructors and students. This led to instructors modifying the departmental rule on a situational basis in order to improve instructional quality.

Assignment Deadlines: Instructors made decisions regarding missed assignment deadlines make-up work based on their written expectations in the syllabus. Although the instructors could have not accepted any late work based on their policies, they did accept students' late work with some deducted points for lateness.

Face-to-Face Engagement: Although some students expected flexible options, some students appreciated courses being taught face-to-face with instructors using learner-centered teaching strategies for student engagement. Students shared they were not engaged in an online environment during Covid-19 and they appreciated instructors who made an effort to re-engage students to discuss class topics and do hands-on activities in a face-to-face environment.

Culturally Responsive Pedagogy: Building relationships with students and showing empathy is important, especially when students experience uncertainties and changes. Students are asked to share discussion posts about their interests and hobbies. This helps cultivate student identities and discuss their common interests beyond the classroom. In post-COVID19, faculty intentionally acknowledge challenges students' face and provide spaces for students to talk about their challenges, both inside and outside the classroom. Discussion boards in Learning Management Systems (e.g., Bright Space), white board applications (e.g., Jamboard), and other digital workspaces (e.g., Mural) can be used inside and outside the classroom to promote students to share their personal interests, cultural assets, and life experiences. The goal is to facilitate personal connections among the students, instructor, and content.

Implication and Advice to Others

Communication strategies are important in establishing, maintaining and navigating student expectations. Clearly communicating written expectations in the syllabus is key because the syllabus serves as a formal contract with the instructor. Although the syllabus can be interpreted clearly, instructors should use discretion and empathy to understand students' challenges in navigating the post-pandemic environment. Flexibility and consistency in interpreting expectations are key concepts in choosing strategies to navigate post-pandemic challenges. Although students appreciated flexibility, students clearly expressed they appreciated the physical presence of the instructor. They appreciated being with other students in the classroom and being engaged in discussions about the course concepts and topics. Moreover, they appreciated the personal interaction with the professor and the opportunity to build relationships with other students and the instructor. Personal relationships are important in learner-centered teaching and culturally responsive teaching (Vavrus, 2008).

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Developing Resilient Educators through Ethical Decision Making integrated with Self-Efficacy

Dr. Adrienne Robinson
Graduate Coordinator
UAPB School of Education
University of Arkansas – Pine Bluff
1200 North University Drive, Mail Slot 4927
Pine Bluff, AR 71601
robinsonam@uapb.edu

Dr. Kimberley Davis
Dean
UAPB School of Education
University of Arkansas – Pine Bluff
1200 North University Drive, Mail Slot 4927
Pine Bluff, AR 71601
daviski@uapb.edu

Developing Resilient Educators through Ethical Decision Making integrated with Self-Efficacy

Introduction & Need for LCT Strategy

Self-efficacy, as a socio-affective concept, was introduced by Albert Bandura. In general terms, efficacy refers to individuals' perceptions and beliefs about their potentiality to perform at a given level of attainment and how they might deal with the challenges and difficulties and direct their actions. Teacher self-efficacy is often viewed as a judgment of one's own abilities to increase outcomes of student engagement and learning. Decision-making is a complex cognitive skill. Success in decision-making involves the ability to understand other people's intentions, emotions, and beliefs. The more efficacious teachers are, the better risk-takers they become who instigate higher levels of standards in their classes, which in turn results in better student achievement.

Connection to Literature

The theoretical framework that will connect this exploration and understanding of ethical decision-making and self-efficacy is Social Cognitive Theory. There are three important constructs in Social Cognitive Theory that interact to influence behavior, and in the case of this study, ethical decision making. The constructs are personal factors (i.e, cognition, previous experience), environmental factors (i.e., safety, access to resources), and aspects of the behavior itself (i.e., competence with the behavior, outcomes achieved). The theory also leads to progress in understanding an individual's decisions. Additionally, when exploring the gravity of letting people make their own decisions, self-efficacy naturally occurs. Self-efficacy has a significant influence on behavior change (Bandura, 1977).

Decision making by definition is the process of preparing an option or a course of action over other alternatives on the basis of given criteria or strategies (Wilson & Keil, 2001; Wang et al., 2004) can reveal itself. Decision-making involves deep-rooted cognitive tasks including human thoughts, reasoning, past experiences, as well reactions to the external world, which include the possible future orientations, and also the psychological consequences to the decision makers (Pramanik, 2019).

How It Works / Implementation of LCT Strategy

The approach to understanding self-efficacy and ethical decision-making begins as inquiry-based but progresses into active learning. Active learning engages any approach to instruction in which all students are asked to engage in the learning process. Education research shows that incorporating active learning strategies into university courses significantly enhances student learning experiences (Freeman et al., 2014; Theobald et al., 2020). Applying new, even unidentified, knowledge will assist learning by connecting it with prior information, organizing knowledge, and strengthening neural pathways.

Results to Date / Implications / Impact

The University of Arkansas at Pine Bluff School of Education centers around increasing and partnering to retain preparing highly qualified educators. The Master of Arts in Teaching graduate program is an initial licensure educator preparation program. The students in the MAT program

are teachers of record in local school districts. Coursework and professional development are the leading tools toward the mission of impacting K-12 students in the Delta region, through programming aimed at building effective teacher candidates.

Continuous improvement is key to the mission of the University of Arkansas at Pine Bluff Educator Preparation programs. Reviewing curriculum alignment not only to standards but also to the development and growth of the educator themselves is integral.

A survey, exploring self-efficacy and decision-making with teacher candidates in an alternative certification program will assist with innovative programming. The results will not only assist with revising current courses but developing future professional development, degree, and certificate programs. The survey will be available to teacher candidates during their first semester in the program. The benefit of surveying students at this point is to monitor their development in the area of self-efficacy and decision-making throughout the program. Self-efficacy and ethical decision-making can have a huge impact on everything from psychological states to motivation to behavior.

Future Plans / Advice to Others

Develop curriculum/clinical

Teacher preparation programs must acknowledge and consider the nature of self-efficacy and its developmental progression in an effort to design and deliver teacher candidates who are confident and competent in delivering quality instruction. The results of this study will provide teacher preparation programs with the available resources to enhance the experiences for teacher candidates throughout the program. Recommendations include improving preservice teachers' ability to analyze, interpret, and present data, and collecting data systematically in regards to preservice teachers' impact on their students' learning.

Although there is a growing body of research related and pertaining to self-efficacy and the development of high-quality educators, there is a lack of research that looks at how teachers rate themselves in the classroom. Teachers must be prepared to appropriately educate all students that enter the classroom with varying academic and behavioral needs. Non-traditional educators face different levels of challenges when entering the classroom which tends to lead to early burnout, therefore, the implementation of retention strategies is critical.

Infuse with disposition assessment

Teacher preparation programs can provide aspiring teachers in training with meaningful educational experiences to make sure they are prepared in assessing, instructing, and providing interventions for all students that come to their classes. Professional dispositions serve as the foundation of the essential characteristics of an effective teacher (Villegas, 2007). Teacher preparation programs must provide candidates opportunities to self-reflect on their professional dispositions throughout the program while receiving constructive feedback for further growth.

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Engagement of students involved in study away programs through grouping strategies

Ashley R. York

Dr. John D. Tummons

Dr. Alan G. Mathew

270 S. Russell Street

West Lafayette, IN 47907

ashleyyyork@purdue.edu

tummonsj@missouri.edu

agmathew@purdue.edu

Engagement of students involved in study away programs through grouping strategies

Introduction

We developed a new study away program to Hawaii designed to introduce students to the agricultural products, culture, and history of the Hawaiian Islands. This experience was open to any undergraduate at the university in good standing. No prior content knowledge was needed in any of the topics in this course. When designing this experience, an emphasis on group work was promoted. This was done for several reasons, but a primary purpose was to leverage the natural interactions between students, as students would not only be in class together, but they would also be travelling and staying together for one week in the Hawaiian Islands. Knowing group work historically has been encouraged to help enhance the quality of learning experiences and interactions among students, we felt this approach would be beneficial for our students and the design of this course (Lee, et al., 2016). In this course, students were given the option to sign up for their final group research project which allowed them to a.) choose their topics based on their interest and b.) allow for self-selection of group. Topics for this trip were centered around site visits while in the Hawaiian Islands. A challenge in this case was there were only 6 designated hours (three, 2-hour class meetings) with students prior to leaving.

Purpose

The purpose of this study was to determine if intentional grouping strategies promoted active engagement/learning among the students throughout the course and experience.

Connection to Literature

Benefits of group work within the educational systems have long been associated with numerous advantages, including promoting teamwork, strengthening social skills, teaching accountability and responsibility, gaining new perspectives, pooling resources, and through discussions real world scenarios (Sutphen, 2019). Group work, if done, correctly, can be a high impact practice within the classroom.

Just as important, there are also potential disadvantages of working within a group. Challenges may include the occurrence of undo pressures from some group members, dominate individuals who control conversations and inadvertently cause others to feel alienated, group members may not all put in the same effort, and group work takes additional time to plan (Burke, 2011). Lack of motivation however, has been identified as the top contributor of poor group work (Davies, 2009). Using a reward system can be beneficial, not just for the group but also for individuals (Davies, 2009). Grades, verbal praise, and rewards could help increase motivation.

Understanding these factors can help in the developmental stages of group work. Furthermore, it can help to avoid the "Big Fish in a Little Pond" effect that we associate with the negative effects of class achievement, in this case group achievement, on student academic self-concept (Fang, et.al., 2018). Storch and Aldosari (2013) also suggest that how students are paired is dependent on the aim of the activity and the relationship significance.

Results to Date:

The strategies selected for this expo facto research study were implemented throughout the semester. The researchers wanted to see if there was a link between the intentional grouping strategies used within this course and the engagement and learning of the students/students. To determine how students viewed the grouping strategies it was necessary to measure how they, a.)

viewed themselves as a partner, b.) how they viewed their partner(s), and c.) what they would change if given the opportunity. The researchers chose to represent their scorings as percentages and calculated the differences of perceived views. The justification for comparing self- and peer-evaluations in this manner was to quantify the perceptions that each student had and provided a clear picture of how effective the groups were.

Students rated themselves the highest in responding to questions within 2 days. Closely following, the students felt that they completed their research and cooperated well with their partner(s). Interestingly, students scored their partner(s)' contributions higher than their own. The greatest variance was among the students' interest and willingness to discuss ideas with each other. While these two areas still scored rather high, it does indicate that there could be programming implemented into the course on best practices in discussing ideas and how to maintain interest and enthusiasm in a project. Students (*n*=5) seemed to be pleased with the way grouping worked within this project. Table 1 shows the mean and standard deviation for both self and peer evaluations. For each construct, students, on average, rated themselves lower than their peers rated the group, suggesting some process gain.

Table 1

Mean and Standard Deviation of Self and Peer Evaluations

	Self-Evaluation		**Peer Evaluation**		**Difference**
Variable	*Mean*	*SD*	*Mean*	*SD*	*(Self-Peer)*
Participation in discussion over project	4.71	0.47	5.00	0.00	-0.29
Interest and enthusiasm in project	4.57	0.76	4.86	0.36	-0.29
Cooperation with partner	4.86	0.36	5.00	0.00	-0.14
Respond to my partner questions within 2 days	4.93	0.27	5.00	0.00	-0.07
Completed my research within the deadline given	4.86	0.36	4.93	0.27	-0.07
Willingness to discuss ideas with partners	4.63	0.63	4.93	0.27	-0.03

NOTE: *n*=14. The scale is as follows:5= *Excellent work; crucial to group's success* 4= *Very strong work; contributed significantly to group work* 3= *Sufficient effort; contributed adequately to group work* 2= *Insufficient effort; met minimal standards of group work* 1= *Little or weak effort; was detrimental to group work* 0= *No contribution - Cooperation with partner(s).*

Recommendations:

Based on these data and the high marks on the final group projects, it appears there was a high level of satisfaction among group members. We recommend that this grouping strategy promotes positive peer interaction. Implementing additional surveys throughout the semester and offering additional check-in points will help to bolster future studies in effective group pairing. How would modeling behaviors and adding visuals for students shape expectations without taking creativity away from them? Providing examples can sometimes limit creativity, if not presented correctly. Additionally, more time in class for students to get to know each other will be provided. This will provide them an opportunity to get to know personalities better, prior to traveling. Furthermore, additional studies should be conducted to see if there is a causal relationship present.

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Feedback as a Formative Evaluation Approach to Minimize Implementation Fidelity and Maximize Evaluation Use in a Multi-institutional M.E.N.T.O.R. Project

Rama Radhakrishna, Professor and Head
Neil Knobloch, Professor
Purdue University
Department of Agricultural Sciences Education Communication
West Lafayette, IN 47907

Levon Esters, Professor and Associate Dean for Multicultural and Faculty Affairs
Purdue Polytechnic Institute
Purdue University
West Lafayette, IN 47907

Feedback as a Formative Evaluation Approach to Minimize Implementation Fidelity and Maximize Evaluation Use in a Multi-institutional M.E.N.T.O.R. Project

Introduction/Background

A multi-institutional mentoring project was created in 2020 (M.E.N.T.O.R., 2020). This initiative is a collaborative capacity building partnership between 1862 and 1890 land-grant universities (LGUs), in which faculty leadership teams (FLT) (at each of these LGUs) develop campus-based mentoring programs. By doing this, these teams can provide mentoring support to university students, especially underrepresented minorities (URMs) in the food, agricultural, natural resources, and human (FANH) sciences disciplines. The long-term impact of the project is to help students (as participants) be academically, socially, and professionally successful.

Over the past two years, 11 LGUs have participated in this project. A core team (project PIs and evaluator) was created to coordinate the project activities and evaluate progress made and outcomes achieved. To implement project activities, participating FLTs were asked to submit and present mini-grant mentoring proposals outlining mentoring activities in their respective institutions. These proposals were reviewed and evaluated by the project leadership team to be approved for funding to receive $10,000. To facilitate the implementation of the project to achieve its goals, several (6) mentoring webinars were conducted, which included topics on: inclusion, diversity, mentoring, program development, administrative support, and program evaluation. The webinars were well received, and the evaluation data revealed that the webinars were immensely helpful in implementing project activities. During the second year, COVID-19 hit and the impact on implementing project activities was huge and significant and limited the abilities of project directors to implement activities in a timely manner. In several instances, they had to delay the project activities, adjust the implementation timeline, use different approaches than what was planned, and postpone collection of evaluation data. Despite all these constraints posed by COVID-19, the project directors continued to work on their respective projects, implemented the activities to the best extent possible, adjusted or revised project activities and measure progress to document outcomes of their respective projects. In February of 2022, a Zoom meeting of all FLT project directors and/or their representatives was organized to take stock of the situation and assess progress made thus far, and challenges faced, and the opportunities for remainder of the project and beyond.

Purpose and Objectives

The purpose of this paper was to assess progress made in the M.E.N.T.O.R. project since it started, the impact of COVID-19 on project implementation, next steps, and challenges and opportunities moving forward. Specifically, project core team was interested in listening to each of the FLT project directors and assess progress thus far to determine ways to move forward with a goal of not only accomplishing project goals, but also help minimize the challenges they may face during the remainder of the project.

Approach

We used feedback research as an approach to assist the 11 LGUs to improve project effectiveness (Hattie & Temperly, 2007: Rog & Bickman, 1984). According to Heritage (2014), feedback can serve as a learning tool to participants and improve their own skills in implementing and evaluating their respective projects. Additionally, this approach was used to gather information to determine the need for evaluation and to increase the value and usefulness of evaluation in documenting outcomes of individual projects as well as the overall goals of the M.E.N.T.O.R. project. We believe that using feedback from LGUs can provide valuable information for them to improve project outcomes. Five questions were asked: (1) project information including the FLT, (2) progress made thus far (SU 21 and FA21), (3) planned activities in SP22,

SU22, and FA22, (4) scholarly outputs produced, and (5) challenges and opportunities. Another question, "need for assistance" was also asked. Webinar participants submitted this information in an Excel spreadsheet as well as sent prepared notes following the webinar. Project evaluator took detailed notes and summarized the information.

Findings

Overall, despite many challenges faced due to COVID-19, institutional barriers, delays, and communication among project coordinators, the FLTs were doing what they all could do to move the project forward. Based on the information (verbal and written) provided, some were making excellent progress, while others were slowly getting into implementing activities to meet their respective project goals.

Regarding progress made, a couple of FLTs created their mentoring programs, recruited URM student participants, and on-boarded and mobilized faculty to help with their projects. Some of FLTs have collected baseline data, conducted interviews with participants, and developed resources for inclusive mentoring practices among undergraduate students. Others offered seminars and mentoring workshops, working with their college administrators to seek funding match, and so on.

This year, the FLTs are working hard (with the ease of COVID-19) to accomplish what they planned to do at the start of the project. Example of activities include expanding the program to 4-H youth, building relationships with 1890 institutions, hosting mentor-mentee exchange for better understanding of mentoring concepts, meeting with higher-level administrators to include mentoring in promotion and tenure documents, inclusion of mentoring concepts into career development and workforce development initiatives. A couple FLTs are analyzing data for presentation and/or publications in the coming months. We can anticipate scholarly outputs from FLTs this year.

Several project team members documented challenges to their implementation of project activities. Mostly, these were institutional; for example, option of in-person versus virtual classes making it difficult to organize project activities, difficulty in paring faculty and mentee groups, working with budget and financial issues, faculty time commitment, dealing with challenges of URM students coming into R1 institutions. Others needed help in evaluation of their projects.

Regarding the additional question, needing assistance, most FLTs were satisfied with what they have done so far. However, some expressed need for regular communication via webinar or workshops to know how things are get assistance in data collection, analysis and preparing publications, etc.

Conclusions and Recommendations for Project Improvement

FLTs are implementing their campus-based mentoring programs despite the delays caused by COVID-19 and were able to make progress in developing and implementing their mentoring program using collaborative approaches to build capacities in interested students and faculty. The FLTs were able refine their plans as they learned more about mentoring and how they could effectively implement a mentoring program on their campuses. There is a balance between giving FLTs the time, space, and flexibility to implement their mentoring programs and the need for regular communications and/or learning opportunities through webinars. Moreover, FLTs requested assistance to evaluate their mentoring programs, including data collection, data analysis, and preparing publications and scholarly outputs. Finally, one thing that stood out most was the dedication and commitment of FLT members to make progress despite many, many challenges they faced. They all recognized the value and contribution of this project to student success and their professional development.

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Influential Reasons Students Choose Agricultural Sciences and recommendations to Increase Diversity

Derek James, MS
101 Ag Administration Building
814-865-3215
daj17@psu.edu

Influential Reasons Students Choose Agricultural Sciences and recommendations to Increase Diversity

Introduction

The Agricultural Sciences is facing a twofold fight: attracting more students and secondly, attracting underrepresented students to majors that have historically seen fewer URM students. This paper looks to investigate what factors are most influential to students choosing sgricultural science majors and if URM students are influenced by different factors than their non-URM counterparts.

Purpose and Objectives

The purpose of this study is to identify the most influential reasons students at a major research institution in the northeast choose agricultural science majors. With minority populations declining in the field of agriculture and the opportunities ever-increasing, we must find a way to recruit underrepresented populations (Warren and Alston, 2007; Zoldoske, 1996). An important factor in recruitment starts with discovering what has the greatest amount of influence on the current URM students in selecting an agricultural major. By identifying the primary influences on URM students' choice to enroll in an Ag Sciences major, this research will help inform recruitment strategies to ensure a more diverse student body.The objectives of this study were to:

1. Describe the demographic profile of the URM and Majority student respondents enrolled in agricultural science majors at a major research university.
2. Identify the most influential and least influential characteristics that led to the students' choice of an agricultural science major.

Using the data from the questionnaire, the researcher made recommendations that target underrepresented students for recruitment into Agricultural Sciences.

Methods

The target population for this descriptive study was full-time underrepresented and majority students enrolled in the college of agriculture at a major research university in the northeast. All underrepresented students in the college of agricultural sciences at the university were asked to fill out the survey, while a random selection of non-minority students was sent the survey.

An emailed questionnaire, *Why Ag Sci*, was used as the instrument for this study. The questionnaire is a modified version of the Wildman and Torres (2001) survey.

Findings

Why Ag Sci revealed that there were a variety of influences in students' choice of a major. Prior experience in agriculture was an influential characteristic, as well as having family members in the agricultural industry, knowing people in the agricultural industry, and having direct experience with the agricultural industry. Majority students were the most influenced by these experiences while URM students did not have as many agricultural experiences before college. Based on these data, providing opportunities to gain experience in agriculture before college to URM students may increase the likelihood of choosing agriculture as a career or a

major in college.

When asked what factors were considered in choosing a major, the most greatly considered were the future job market and income gained after college, which are closely related. Over 86% of respondents felt that they had a lot of job opportunities in their major at the university being studied.

The study also showed that 70.4% of URM students were in just 6 of the majors: Food Science, Animal Science, Vet and Biomedical Sciences, Immunology and Infectious Disease, Toxicology, and Wildlife and Fisheries Sciences.

Conclusions and Recommendations

Experience in Agricultural Sciences during high school, science teachers, personal role models, interaction with faculty and staff from Agricultural Colleges, understanding of majors and careers, Agricultural science clubs and organizations, and scholarships and financial incentives were all components of influence that students looked for when choosing majors in Agricultural Science. Most students chose their majors and their college in their senior year of high school. and did not know of agricultural majors before college.

Despite many similarities between the two populations studied, when looking deeper into the responses based on URM vs Majority status, a few statistical differences lead to the recommendations the researcher suggests to increase URM student participation in the agricultural sciences. Students from URM backgrounds were more likely to be urban and or suburban. Underrepresented students were influenced more by financial incentives and scholarships, both of which aid in removing the financial barrier to higher education. Likewise, URM students were also more influenced by the income gained after college based on their major.

Recommendations

Increase contact with Junior MANRRS
Recommendation: Working with Junior MANRRS students in high school may provide opportunities to seed the next generation of Ag Science students and professionals. Colleges could create Junior MANRRS chapters to increase their outreach and develop programs for the students.

URM students had fewer family and pre-college opportunities in Agricultural Sciences.
Recommendation: Colleges, extension offices, and programs geared toward youth in agricultural sciences need to expand their network to more diverse audiences when programming.

URM students had less knowledge about majors and careers in Ag Sciences.
Recommendation: A study by Baker et al. (2013) recommends targeted recruitment strategies focused on the benefits and what is gained by majoring in agricultural sciences that will help recruit students.

Most students chose their major and college later in their high school career.
Recommendation: Increase recruitment and informational programming to high school students, especially in schools where URM students may be interested in STEM careers.

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Integration of Client Projects and Human-Centered Design for Learner-Centered Teaching (LCT) in an Undergraduate Program Development Course

Rebecca Mott
123 Gentry Hall
Columbia, Missouri 65211
(573)881-0749
mottr@missouri.edu

Amy Leman
139 Bevier Hall
905 South Goodwin Avenue M/C 180
Urbana, Illinois 61801
(217)300-6561
bunselme@illinois.edu

Integration of Client Projects and Human-Centered Design for Learner-Centered Teaching (LCT) in an Undergraduate Program Development Course

Introduction

To assist in developing a professional and diverse agricultural workforce for the 21st century, professors from the University of Missouri and University of Illinois are utilizing a unique approach to teaching an agricultural education and program development undergraduate course. After ensuring that students have foundational knowledge and access to resources in program development, professors from two midwestern universities bring together their students for applied learning through real-world projects. Students work in cross-university groups to understand the clients and their target audiences, and then design programs to meet the needs.

Connection to Literature

Integrating real-world experiences into the classroom has shown to be impactful. Students who apply theories and concepts to practical problems are more likely to feel academically motivated (Trolian & Jach, 2020). Engaging with course concepts leads to greater mastery of the material (Maskiwicz et al., 2012) and higher-order thinking skills (Jensen & Lawson, 2011). Meaningful learning occurs when students move from rote memorization of material into interpreting, analyzing, and evaluating content (Edgar, 2012; Schunk, 2004).

Human-centered design (HCD), or design thinking, is a term for innovating or designing with the end user in mind (Boller & Fletcher, 2019). HCD is an active learning approach that involves working with target audiences to understand their needs/experiences, synthesizing this information, ideating potential solutions, prototyping, and implementing. When used as a tool in education, it allows students to engage with the audiences that are impacted by the course concepts they are learning, allowing the features of the audience to become more salient and allowing the students to develop more creative resolutions to the audience's problems (Matthews and Wrigley, 2017). To create an environment where students interpret and analyze content in relation to target audiences, teacher roles must shift from being the *spokesperson* of knowledge to being the *architect* of learning (Doyle, 2011).

How it Works

Before the courses begin each school year, the professors identify clients interested in providing a need or project and working alongside undergraduate students. Clients must be passionate about collaborating with undergraduates and be willing to prioritize and support student learning experiences. Throughout the first six weeks of the course, students learn about and apply program development skills by individually designing their own mini-programs. The topic of the mini-program is the choice of each student. This project aims to help prepare students to take on the client project later in the semester. Examples of some of this year's mini-programs include a livestock judging clinic, a floral design workshop, and a plant identification walk.

Once students have successfully completed their mini-programs, they are ready for Client-Student Program Launch Weekend in St. Louis, Missouri. To kick off the weekend, clients make presentations describing their industry/organization and project need. Students select the project team that best aligns with their interests and career goals. Throughout the weekend, professors facilitate activities that help clients and students develop program goals, understand the target audience, and build delivery methods and deliverables.

When students return to their home universities at the end of the weekend, they continue to meet virtually in their project teams to develop the deliverables they and their clients agreed upon. Students complete reflections at various times during the weekend and throughout the final weeks of the semester. As the end of the semester nears, students present their client programs to their classmates for feedback. As the semester concludes, teams virtually deliver their program package to the client for input and then modify as needed.

Results to Date

In 2022, this course produced nine training projects/programs designed in collaboration with seven unique stakeholders from four different Midwest states. A total of 45 students from both universities were divided into project teams of 3-4 members—each project team except for one included a student from both midwestern universities. Stakeholders included Illinois Agriculture in the Classroom, Drury Inn at The Arch, the Danforth Foundation, Council for Agricultural Science and Technology (CAST), Illinois 4-H, Missouri Agriculture Education on the Move, and Chick-fil-A-Hutchison, Kansas. Feedback from stakeholders at the end of the course indicated that components of all programs/projects will be piloted or implemented by stakeholders.

From a post-course survey, 85% of student survey respondents (n=34) reported they are likely to use human centered design in other aspects of their lives. In addition, 88% reported they are likely to use human centered design in their future careers. Retrospective pre-post test questions revealed that by the end of the course participants were statistically more likely to be comfortable with the unknown (t=3.72); think critically about different problems and solutions (t=4.09); be comfortable dealing with problems for which they cannot successfully predict a solution (t=5.83); and feel comfortable collaborating with people from different backgrounds (t=2.98).

Qualitative data shared in reflective journals indicated that students valued the opportunity to work alongside stakeholders in real-life projects. One Senior student explained, "This *has been an invaluable experience – from learning more about my stakeholder organization to getting hands-on experience in program development to receiving constructive feedback from an experienced professional. This has been a nonstop learning experience that helped me grow as both a student and professional."*

Another Senior wrote, *"The hands-on portion of the class has been exceedingly important as it has allowed me to apply what I have learned in the classroom to see what works and what I need to improve upon. I believe that having a hands-on experience like this class has provided is a great way to prepare students for a professional environment."*

Future Plans

Professors continually strive to expand the diverse group of clients involved in this course to meet the needs of individual students. This year we were able to add stakeholders from the restaurant and hotel industries, which met a need for Hospitality Management students who are required to take the course at one of the universities. We aim to expand further into the agricultural communications realm in the upcoming year. We also continue to research how students perceive using human-centered design impacts their current and future collaboration and communication skills.

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Intervention & Resilience: The use of Learner Centered Teaching

Phillip D. Lewis, Ph.D., CRC, LADC Candidate
Associate Professor/Graduate Coordinator
Department of Rehabilitation Counseling and Disability Studies
Langston University
914 N. Greenwood Ave
Tulsa, OK 74106
lewispd@langston.edu

Perry Sanders, Ph.D., CRC
Assistant Professor
Department of Rehabilitation Counseling and Disability Studies
Langston University
914 N. Greenwood Ave
Tulsa, OK 74106
perry.sanders@langston.edu

Intervention & Resilience: The use of Learner Centered Teaching

Introduction

As educators, we are typically expected to maintain will power and offer reasonable accommodations to our students despite the crisis that we are facing as an institution or individually. In the same breath during any given semester, undoubtably a student may experience an event or life circumstances that may categorizes them as a victim of a crisis. You want to help a victim not only to survive the crisis experience, but to go on to being resilient, and thrive in life despite the setback. Life history studies of epidemiological study found that 69% of a representative sample of 1,000 Americans have had experienced at least one extremely traumatic event during their lifetime (Kanel, 2017). In addition to some dangers, crisis also presents opportunities for personal growth if during the crises one receive immediate help and practical support. Resilience is the term for the ability to "Bounce Back" after significant adversity and risk. COVID-19 posed a crisis for many of us, in which if we are here to tell our story of survival during this pandemic, we have surely persevered through some of the most trying times of our lives. Ultimately, we have learned to be resilient and to thrive despite the crisis of over 500,000 people dying from this deadly virus.

Presentation Elements

This presentation offers a guide to crisis intervention, while using an LCT model to teach resiliency. In addition, presenters will uncover the fundamentals of surviving situational and developmental crises, how they occur and how you can manage them using LCT strategies. As it relates to various traditional counseling models as they relate to crisis intervention, this presentation will illustrate how models of crisis intervention can be incorporated into the classroom (which can be used within an LCT setting with any student that may be experiencing a crisis). Various examples of resiliency will illuminate the psychological and behavioral dynamics associated with a crisis. Case scenarios may help one to learn what to say to students, whether the crisis is developmental; related to trauma, post-traumatic stress disorder (PTSD), substance abuse or other factors. Attendees shall also learn how to define the causes of stress, and LCT /student-centered coping strategies can be used to combat various stressors.

Introduction to Learner-Centered Teaching Strategies

This presentation is designed to offer some insight on ways to use learner-centered teaching strategies to help student's overcome adversity that they may face throughout their quest to conquer their academic endeavors. This presentation will introduce an understanding of a few theories and concepts of crisis intervention, proper approaches to safely and effectively resolve a crisis using LCT. We will help attendees to better understand the holistic concept of stress and how it may impact your daily lives. We will shed light on a few clinical tools to help educators work with a victim and/or perpetrator, as effective communication and/or calming techniques can be used to aid in successful resolutions surrounding a crisis as they happen and may offer long-term solutions.

Incorporating Learner Centered Teaching as a Strategy to Resiliency

There is a recognition that educators like mental health professionals must be prepared to be Resilient and to guide responsibly for those we serve, for the benefit of increased understanding between student/teacher and/or client/therapist, and to increase sensitivity to those diverse differences among them. In fact, it has been argued that educator's and counselors have a moral obligation to be curious about the differences present in their respected settings. All communications are often inherently and unavoidably a multicultural experience. Therefore, LCT is the best approach to allowing students to guide the teacher of their path and experiences of surviving their crisis and resiliency. The development of multicultural teaching

and counseling began with attention to diverse services provided by the teacher or counselor from predominantly majority cultural power groups to many oppressed ethnic minority clients. Many students first experiences of surviving a crisis may very well come from the way their culture or family handles those types of stressors. Therefore, multicultural competencies should be considered a user friendly LCT strategy to rapport building with students.

Assessment Strategies for Learner-Centered Teaching

Various LCT instructional assessment methods will be utilized to accomplish course objectives, which includes, but not limited to presentation, discussion, clinical feedback, and participant role-play. The purpose of this presentation is to assess a person's resiliency to life's challenges. We will review the positive and negative prospects of a person's ability to adapt to adversity. It is our intension to discuss factors which can help or hinder the recovery from adverse experiences. We also hope to shed light on the benefits of using a crisis intervention, which will often enhance one's ability to cope and recover from adversity.

Presentation Strategies and Expected Outcomes

The presentation is designed to introduce current Crisis Intervention theories, Resiliency, and a practical LCT model. It is designed to offer insight for faculty and other educators, to recognize if a student is having a mental health crisis and garner the skills to assist participants in obtaining general knowledge of crisis intervention training that can be applied to students that may be dealing with various forms of crisis and the sociocultural considerations that often comes along with varying crisis.

Objectives:

- Identify resiliency
- Review a few factors which hinder Resiliency
- Review factors that positively assist in Resilience
- Identify those who demonstrate Resilient responses
- Identify Crisis Interventions which will help to promote positive outcomes to negative life experiences

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Learner-Centered Approaches to Educational Practica/Early Field-Based Experiences

Thomas H. Paulsen, Ph.D.
Professor and Head, Applied Agricultural and Food Studies
Morningside University Campus Office: 712-274-5489
paulsent@morningside.edu

Elizabeth Anne Albright, Ph.D.
Assistant Professor and Acting Chair Psychology Department
School of Education and Behavioral Sciences
Langston University – Langston Campus Office: 405-466-3266
elizabeth.albright@langston.edu

Orlenthea S. McGowan, Ed.D.
Professor/Project Director and Interim EPP Department Chair
School of Education and Behavioral Sciences
Langston University-Tulsa Campus Office: 918-877-8159
osmcgowan@langston.edu

Neil A. Knobloch, Ph.D.
Professor
Department of Agricultural Sciences Education and Communication
Purdue University Office: 765-494-8439
nknobloc@purdue.edu

Learner-Centered Approaches to Educational Practica/Early Field-Based Experiences

Introduction and Need for LCT Strategy

Early field experiences (EFE) have been identified as critical in the preparation of preservice agriculture teachers (Baker, et al., 2017). Moreover, Smalley and Retallick (2011) described them as "the foundation for teacher education programs" (p. 100). As part of the "complex developmental process of becoming a teacher" (Guyton & Byrd, 2000, p. 14), EFE provides opportunities for preservice teachers to connect educational theory with practical application prior to the student teaching experience (Guyton & Byrd, 2000).

Through this presentation, we will compare and contrast the implementation of learner-centered approaches to preservice teacher educational practicum experiences of three institutions (1862 Land Grant, 1890 Land Grant, and Private Liberal Arts) universities.

Connection to Literature

Experiential learning (Kolb, 1984) is prevalent in school-based agricultural education (Roberts, 2006) and has been characterized more by the process than product (Baker & Robinson, 2016). Consequently, practicum experiences should help preservice teachers to "take control of their own professional development and to learn how to continue learning" (Zeichner, 1996, p. 125-126) and thus, support a critical tenant of learner-centered teaching. The purpose of this presentation is to compare and contrast three institutions' approaches to implementing Early Field-Based experiences through a learner-centered approach.

How It Works/Implementation of LCT Strategy

Each institution offers early field or practicum experiences to provide students with contextualized learning experiences and apply knowledge and teaching skills with an audience in the real world.

Purdue: Undergraduate and graduate students enrolled in a teaching STEM through AFNR course develop three lessons (individually) or five lessons (with a partner). Lessons are typically 45-minutes in length and are developed using learner-centered teaching methods (i.e., inquiry-based learning; engineering design/project-based learning; game/role play) to teach two or more content areas using AFNR as a context. Students can choose to teach one 45-minute lesson in a formal or nonformal educational setting. Students practice the lesson in front of their peers in a classroom on campus. Students visit the teaching site before they teach to get familiar with the context and meet the educator and youth. Students self-reflect using a rubric after they teach the lesson.

Morningside: Undergraduate preservice Agricultural Education teachers engage in early field-based experiences connected with six different teacher education courses through the program. EFE experiences are developmental and vary in hours and experiences required. Courses taken early in the program focus on observational learning while later experiences engage students in active learning. For example, students in the Teaching Ag Labs course reflect upon the teacher's laboratory and tool management techniques while students in the Teaching

Methods course are required to fully develop, implement, and record the delivery of two 45-90 minute lessons. Formal reflections and course discussions provide students with active learning opportunities as they grasp concepts from their own and each other's experiences.

Langston: Undergraduate preservice Teacher Education students participate in LCT Virtual Service-Learning Readers Theater and Running Record assignments through a Foundations of Reading course. The Service-Learning Readers Theater and Running Record assignments involved using LCT to understand effective trends (strategies) in helping children develop better reading skills (such as word identification, vocabulary, comprehension, and fluency). Both initiatives were joint efforts between the assigned school and university Teacher Education Unit. This course provided students with the opportunity to demonstrate their service, social, and civic responsibility using learner-centered teaching strategies. Ultimately, teacher education students applied their content knowledge and theory to a real-life situation by engaging in Learner-Centered teaching.

Results to Date/Implications/Impact

Purdue: Students shared they found the practicum experience beneficial because they were able to see how youth responded to their lesson. The real-time feedback by observing youth while they taught was valuable. They felt affirmed when they could see the youth engage in their hands-on activities and showed interest in the learning process. Students shared they did not anticipate some of the classroom management challenges, such as repeating instructions multiple times and keeping students focused on the learning task.

Morningside: Pre-service teachers were asked to reflect upon previous experiences and connect them with those that were most recent. Through this process, students identified attainment of specific course-based theories or practices (i.e.: lab management, budgeting programmatic assessment, FFA/SAE development, and methods of teaching) as well as their own personal growth in the 32 institutional dispositions assessed throughout the teacher education program and recognized theory attainment through their growth in the EFE experiences.

Langston: Students submitted their course reflections and shared that they found the LCT Virtual Service-Learning Readers Theater project and Running Record assignments were engaging, beneficial, and life-changing for the teacher education student and participating students (reported by the elementary students and classroom teacher). It helped to motivate students to be engaged in the production, by leading them through the book (storylines) as they followed along, and increased fluency through artistic interpretation of the story. Furthermore, several themes emerged from the preservice teacher's reflections regarding the importance of the book choice, the level of student engagement and motivation.

Future Plans/Advice to Others

Cross-institutional analysis and collaborative sharing can help faculty grow and develop as learner-centered teachers. This collaborative discussion helped faculty see similarities and differences among early field-based practicum experiences based on their own institutional contexts. Each institution took pride in providing active, learner-centered approaches to

preservice teacher EFE experiences. Each institution developed authentic problems for students to address through authentic school-based experiences. In each case, students were motivated to participate and learn through reflective, active learning experiences. Although the preservice experiences shared by the faculty in this presentation focused on different aspects of preservice teacher development, content, and context, learner-centerd approaches were valued. The discussion helped faculty consider different adaptations to make their EFE/practica more aligned with targeted learning outcomes and help their students learn how to implement learner-centered teaching strategies.

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Linking Communication and Program Theories to Develop Learner-Centered Strategies that Address Communication Challenges in a Multistate M.E.N.T.O.R Project

Monique Hovey & Rama Radhakrishna
Purdue University
915 W. State Street
West Lafayette, IN 47907

Aaron McKim
Michigan State University
480 Wilson Road, Room 131
East Lansing, MI 48824

Marilyn Bailey & Janette Wheat
University of Arkansas at Pine Bluff
1200 N. University Drive
Pine Bluff, AR 71601

Martha Ravola
Alcorn State University
1000 ASU Drive
Lorman, Mississippi 39096

Lavyne Rada
University of Minnesota
1994 Buford Ave
St. Paul, MN 55108

Introduction, Need, and Connection to Literature

Communication theory can support learner-centered teaching strategies to bring about change in formal and non-formal settings. Specifically, the Integrative Model of Behavior (IBM) acknowledges the individual factors of an individual's behavior while trying to move the individual to action (Fishbein & Cappella, 2006). An instructor and their learning environment can apply Fishbein and Cappella's IBM in the same way a public health director would. They should first determine the learning behavior (educational goal) students need to accomplish. Then, after considering relevant contextual factors related to students and their environments, the teachers can follow their lesson plans and use the IBM to evaluate why students may not be reaching objectives (Fishbein & Cappella).

The M.E.N.T.O.R. (Multi-institutional mEntoring Network for Transforming Organizational cultuRe) project is a collaborative capacity-building partnership between 1862 and 1890 land-grant Universities (LGUs), in which faculty leadership teams (FLT), at each of these LGUs, develop campus-based mentoring programs. Program theory can support FLTs by connecting communication theory to their programs' goals (Pope et al., 2019). A program theory consists of a set of statements that describe a program, explain why, how, and under what conditions the program effects occur, predict the program's outcomes, and specify the requirements necessary to bring about the desired program effects. Similarly, communication theories help teachers plan, design, and deliver learning opportunities keeping in mind the foundations of communication: creator/sender, message, receiver, and the communication channel. Linking communication and program theories will go a long way in addressing challenges project leaders face in delivering information and bringing out positive learning outcomes among their students.

Approach and Purpose

Higher education programs knowingly or unknowingly tap into communication theory to improve their programs. The purpose of this LCT presentation is to show the value of linking communication theory with program theory to addressing challenges faced by project directors of the M.E.N.T.O.R project. We share the experiences of 1862 and 1890 institutions in addressing communication challenges using learner-centered strategies. First, we share challenges in the leadership education project at an 1862 institution, followed by a program focused on early child development and Practicum preparation experience involving two diverse disciplines in two different 1890 institutions.

Shared Experiences

Experience 1 - Communication Challenges in Leadership Education: The context for this communication challenge is postsecondary leadership education. Within this context, one challenge is helping leadership learners conceptualize changing communication patterns among followers, specifically, shifting follower conversations from reflecting upon past events to envisioning a better future. To address this communication challenge, we introduced students to the three-domain communication framework by Kim Krisco (1997). Illuminating these three domains and empowering students to view leadership as the act of shifting conversations from the domain of description to the domains of possibility and action has helped to resolve this communication challenge. The learner-centered teaching strategy we utilize to achieve these objectives was having students act out and critically analyze scripts that juxtapose leaders ineffectively and effectively managing conversations from the domain of description to the domains of possibility and action.

Experience 2 – Early Education Staff and Child Care Partnerships: The context of this communication challenge was with Early Head Start staff and Child Care Partners, who were perceived to be experiencing feelings of anxiety, depression, distrust, and low morale that affected their performance. To better support EHS-CCP staff and grantee staff at [school 2], several strategies were used to empower teachers in their work with very young children and their families. Through a holistic three stage reflection process, staff began to model emotionally intelligent practices and improved their skills as communicators. They became more transparent about revealing the root causes of their anxiety and low morale with many expressing feelings related to a fear of failure and

adversities experienced in childhood. Engaging staff in reflective dialogue to assess their strengths and challenges created opportunities for individual and program growth.

Experience 3 – Practicum Preparation Among Human Development and Family Science Undergraduates: Students are required to complete Practicum in their senior year before graduation; the goal of Practicum is to prepare students for career readiness. [School 3] implemented a multi-faceted process to better prepare students for Practicum using various communication channels and departmental events. Multiple channels of communication have brought a change in students' behavior which includes outlook towards Practicum, preparedness and willingness to charter new opportunities.

Experience 4: Communication Challenges with Early Career Teachers: The Teacher Induction Program (TIP) at [School 4] provides mentorship and support for teachers new to School-Based Agriculture Education (SBAE). Using strategies outlined by Sehgal (2016), emails specifically provide subjects with keywords of the action being requested, succinct summaries of key points related to classroom instruction, work-based learning, and FFA, and direct links to more details and resources are provided within the email. Additionally, each professional development meeting has a written summary, an audio recording, and a video recording available to all teachers. This learner-centered strategy allows teachers the resources needed to meet their individual needs.

Lessons Learned

All four programs described above break their approaches into layers or sequences to reach a desired objective. The layered approaches align with message design logic which helps to understand how messaging is created and interpreted (O'Keefe, 1988) which has been used to improve learning of mathematical concepts (Forrest, 2008). The multiple types of messaging likely contribute to the programs' positive outcomes. To achieve strong program theory, more FLTs should be linking communication theory like IBM to communication-related objectives. For example, IBM could be helping schools two and three address attitudes, and perceived control, respectively. Regardless, the four programs have reported the following positive outcomes.

- Instructors have used learner-centered teaching with Krisco' 1997 communication framework to develop students' critical thinking skills within leadership education.
- Multiple layers of reflection and learner-centered teaching supported individual and program growth among early education staff.
- A multi-pronged approach to communication with undergraduates entering a practicum program supported better outcomes in a learner-centered environment.
- Communication strategies support a learner-centered approach to resource sharing so that teachers can meet their individual needs.

To further encourage engagement among students in LCT settings, instructors should develop an understanding of students' characteristics. Instructors should consider relevant influences on students' learning behaviors and limits: historical, sociocultural, economic, and political, as necessary (Behavior Change Theories and Techniques, 2015). Additionally, the learners' attitudes, social norms, and behavioral control simultaneously affect their intention to participate in learning. These factors can help instructors adapt to students needs as they will have a better understanding of students' attitudes and perceptions. Their pedagogical approach and learning environment can address the IBM's considerations of environmental constraints and leverage students' knowledge to produce educational outcomes (behaviors) with strong program theory.

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POSTER

Developing a Learner-Centered Win-Win-Win Preservice Teacher Mentoring Program

Thomas H. Paulsen, Ph.D.
Professor and Head, Applied Agricultural and Food Studies
Morningside University
Campus Office: 712-274-5489
paulsent@morningside.edu

Developing a Learner-Centered Win-Win-Win Preservice Teacher Mentoring Program

Introduction, Need for LCT Strategy, and Connection to Literature

Early field experiences (EFE) provide meaningful learning experiences for preservice teachers in authentic classroom environments (Aiken & Day, 1999) and are foundational to teacher education programs (Smally & Retallick, 2012). EFE provides preservice teachers with numerous educative opportunities with the primary being connecting educational theory with practice before beginning the student teaching experience (Guyton & Byrd, 2000). However, preservice teachers have identified numerous challenges related to the EFE experience. Merc (2010) identified the lack of cooperating teacher cooperation as a common problem self-reported by student teachers.

Blackburn and Ramsey (2014) identified one of the greatest barriers to conducting the required work-based learning component of school-based agricultural education (SBAE)--Supervised Agricultural Experience--was the students' lack of familiarity with the new SAE for All model and its newly defined categories. An innovative partnership between a private agricultural education teacher training program and a public secondary high school career academy sought to address these challenges.

We recently implemented an innovative project to address some of the challenges inherent to preservice teacher development and recent concerns related to the Work-Based Learning component of School-Based Agricultural Education programs commonly known as Supervised Agricultural Experience (SAE). The purpose of this presentation is to share the development, implementation, and outcomes of this unique mentoring model for an early field experience project.

Implementation of LCT Strategy

A three-stage mentoring framework was used as a model to meet the goals of the project. [University] preservice agricultural education teachers mentored secondary agricultural education students from an urban Career and Technical Education Career Academy that serves three high schools in a community of 86,000 in the development of foundational and immersion SAE projects. Most of the urban students lacked access to traditional agricultural opportunities but were able to utilize the university’s new agricultural learning center and greenhouse to develop school-based enterprises. Preservice teacher candidates provided academy students with instruction in work-based learning and SAE and were mentored by the Career Academy instructor. Since the instructor was a young teacher with two years of experience, the teacher educator provided mentorship for the SBAE instructor.

Results to Date

This innovative mentoring project provided opportunities for observation of each other's teaching, collaboration between university faculty and the secondary instructor, collaboration between the secondary instructor and the preservice teacher candidates, and finally, collaboration between the preservice candidates and the university faculty member—all while assisting SBAE students to develop immersive SAEs in a state-of-the-art agriculture center.

Anecdotally, participating preservice teachers identified several areas of skill development that included enhanced agricultural content knowledge, pedagogical implementation, lab management, and SAE integration opportunities for urban SBAE students. The SBAE instructor and faculty teacher educator also shared new learning experiences from the collaborative efforts.

Some of the freshman SBAE students from the Career Academy implemented an aquaponics production SAE where various leafy greens were grown and marketed to the University campus. Currently, the fish are still under production and will be marketed during the fall semester. Other students developed a basil production SAE in several of the hydroponic grow towers provided for the project. Currently, basil is being sold to the University cafeteria as well as three local restaurants.

Implications, Future Plans, and Advice to Others

Implementing a three-level mentoring program in an EFE setting can provide for robust learning opportunities for each participant in the program. Providing opportunities for participants to observe each other's teaching and participate in collaborative teaching experiences around a programmatic need area like SAE can provide authentic experiences for all involved, and therefore help preservice teachers gain much-needed confidence. This model actively engaged the cooperating teacher in the process as well. Being a teacher with a limited understanding of the new SAE curriculum, this mentoring model helped her to gain confidence in this area as well. And of course, immersing the teacher educator with secondary students in view of observing preservice teachers provides for excellent reflection and discussion in teacher education coursework.

Since not all teacher education programs have access to a robust agricultural education program locally, virtual teaching and mentoring opportunities exist. One of the most challenging aspects for beginning teachers over the past few years was the lack of experience teaching virtually due to the pandemic. Perhaps teacher education programs should provide opportunities for preservice teachers to immerse themselves in such experiences.

Future project plans include adding a mentoring program for preservice students and the continuation of SBAE student summer SAE projects under the supervision of paid preservice teacher interns and the SBAE instructor.

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POSTER

Experiencing Cultural Diversity through the Production and Sale of Ethnic Vegetables Using Hydroponic Grow Towers

Dr. Annie Kinwa-Muzinga
Morningside University
112 Buhler Rohlfs Hall
1501 Morningside Avenue
Sioux City, IA 51106
712-274-5326
kinwamuzingaa@morningside.edu

Dr. Ngamboko P. Muzinga,
Morningside University
110 Lincoln Center
1501 Morningside Avenue
Sioux City, IA 51106
mizingan@morningside.edu

Dr. Thomas H. Paulsen
Morningside University
106 Buhler Rohlfs Hall
1501 Morningside Avenue
Sioux City, IA 51106
paulsent@morningside.edu

Experiencing Cultural Diversity through the Production and Sale of Ethnic Vegetables Using Hydroponic Grow Towers

Introduction & Need for LCT Strategy

Small and midsize cities in the US are becoming culturally diverse with the existence of many cultural groups. Within these groups, food consumption differs because of cultural values, tastes, and preferences. Today, students are intensively exposed to cultural diversity in many courses where they learn the concepts of global awareness and how culture influences consumer behavior. Some of these students experience these concepts either by traveling to different locations or by participating in service learning projects in different communities. It is worth noting that with the COVID 19 pandemic, teachers in general became very creative by looking for ways to bring innovations in the classroom and on campus (Christian et al., 2021).

At Morningside University in particular, there was a need to enhance cultural diversity by giving students opportunities to participate in the production and sale of ethnic vegetables using hydroponic grow towers installed in the campus greenhouse. The purpose of this presentation is to demonstrate how a learner-centered teaching strategy was applied in an agribusiness/entrepreneurship class. More specifically, the present study (1) shows a process through which an experiential-learning based agricultural project can increase students' interest in cultural diversity settings, and (2) create global awareness of ethnic foods consumption within a culturally diverse city in a Midwestern state.

Connection to Literature

There is a vast body of literature demonstrating the importance of cultural diversity in educational settings, and many current conversations around this topic confirm that cultural diversity enhances global awareness through different vehicles including experiential learning. According to Butler et al. (2019), experiential learning is an important part of active learning strategies. It is a process of learning by doing, which engages students in hands-on experiences and reflection, in order to help them be able to connect theories and knowledge learned in the classroom to real-world situations (Hawtrey, 2007; Morris, 2020). However, planning an experiential learning activity can be discouraging for instructors because of several interconnected steps of a given activity. Despite this inconvenience, numerous resources exist for instructors to design an experiential learning activity (Moon, 2004; Qualters, 2010; Wurdinger 2005; Zubizarreta, 2008). Morningside University encourages faculty to design opportunities for experiential learning. In this regard, we developed an experiential learning activity for students to experience diversity in agricultural production and consumption settings.

How it Works/ Implementation of LCT Strategy

During the summer of 2021, Morningside University Applied Agricultural and Food Studies Department faculty and students successfully planted and harvested an experimental *amaranth* legume, a staple in many African countries, in one raised bed in the campus garden. Most of the

harvested amaranth was donated to the members of the local African Community. The positive summer experience led students to enroll in a senior-level class where they explored amaranth demands in the city as a term project. In a group of five, students researched produce to grow in the campus greenhouse using hydroponic grow towers targeting the African community. As a result, they visited local African food stores where consumers purchase ethnic food. During those visits, students discovered the increasing demand for amaranth and decided to grow amaranth, romaine lettuce, and basil. The rationale for growing these three products was that most consumers perceived lettuce as a substitute for amaranth and complement for both amaranth and basil. With the use of hydroponic grow towers installed in the campus greenhouse, students planted, harvested, and sold these products for profit to a local ethnic food store. Despite this, amaranth is the main focus of the present study because of its uniqueness as being the ethnic food consumers (members of the African communities, especially the Congolese communities) requested. Meanwhile, students continued to learn different marketing techniques to develop a successful marketing plan. Students developed promotional materials including posters and fliers. Additionally, they interacted directly with customers during amaranth sales. Final course presentations were presented to classmates and students completed a formal written reflection responding to five prompts. Note that we formed three different groups of five students and each group focused on one of the products mentioned above.

Results to date/ Implications / Impact

Results from a survey of 13 student-participants in this experiential learning activity from the Ag Entrepreneurship class found: (1) ten out of 13 respondents were not aware of amaranth at the beginning of the 2022 spring semester and this number decreased to 0% at the end of the same semester, (2) seventy percent (70%) of students who worked with amaranth agreed that the project increased their interest in learning more about ethnic food, (3) 62 percent (f=8) of students who did not work on amaranth but who saw it completed by classmates acknowledged that the experience also increased their interest in the ethnic food consumption and production. In addition, results from a control group of 20 students enrolled in a Finance class (50% Ag students) indicated that (1) seventy percent (70%) were not at all or slightly aware of the amaranth, and thirty percent (30%) were somewhat aware of amaranth at the end of the course.

All students (100%) involved in this experience rated the three projects as excellent experiential learning opportunities to learn about diversity in food consumption and production. Students were able to generate income by selling fresh amaranth to the African food store. As a result, this experiential learning activity has also generated several research opportunities including (1) amaranth productivity with and without worm compost in the campus garden, and (2) a comparative analysis of amaranth productivity between the garden and the greenhouse settings.

Future plans/ Advice to Others

Hydroponics is increasingly becoming a driving force in urban agriculture. It presents greater opportunities for hand-on or experiential learning activities for students and instructors especially in areas where there is limited farmland available on campus. Other future plans include the creation of a baseline data such as production costs, yields, agronomic specifications, and other enterprise budgetary information.

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