



Research

Perceptions of a faculty cohort using education scholar as a basis for faculty development in active learning strategies

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Abstract

Objective: The purpose of this pilot study was to describe any association between participation in a cohort using the Education Scholar (ES) module with faculties' knowledge toward, perceptions of, and implementation of active learning strategies (ALS) in the didactic classroom. Investigators sought to determine the utility of using ES as a professional development tool at the College.

Methods: Using a pre- and post-questionnaire, mixed-method design, volunteer faculty participants responded to situational, knowledge, and attitudinal questions about ALS used in the classroom, and their reasons for participating in the ES Active Learning Cohort.

Results: Perceptions shifted in that most of the participants indicated that they felt active learning would provide benefits in the classroom. They also reported an increase in confidence to use ALS. All participating faculty reported the use or planned use of some type of ALS in their classes, and all reported satisfaction with active learning as a valuable teaching tool.

Conclusions: Faculty indicated that active learning would be a positive addition to the classroom. This College found that a cohort format for delivery worked well and allowed practice opportunities for participants.

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Keywords: Faculty development; Education scholar; Cohort; Learning communities; Instructional design

Introduction

The amount of formal training in teaching and assessment that faculty receive during their postgraduate educational experiences are highly variable.¹⁻⁵ In addition, expectations for faculty effectiveness in teaching and opportunities for development in teaching may vary across any number of factors. Extensive faculty development may be

needed to raise awareness of principles of effective teaching.⁶ More importantly, development in the use of active learning strategies (ALS) in the classroom can help faculty go beyond simply delivering a lecture to promoting student learning.^{7,8} Participation in faculty development programs to enhance ALS skills promotes desirable teaching behaviors.^{1,9} Many universities are attempting to address the need for faculty development by offering teaching skills workshops; however, there is no consensus on best practices or how these programs should be delivered, and longitudinal approaches are relatively rare.⁴ Furthermore, recent reports acknowledge that faculty development programs need to be flexible for participants, such as using online development or independent study offerings.⁵

One option for faculty development of teaching is Education Scholar (ES), (<http://www.educationscholar.org>),¹⁰ an online educational tool for health care education professionals available from the American Association of Col-

leges of Pharmacy, dental pharmacy, dentistry includes eight modules: (1) facilitate active learning, (2) facilitate learning, (3) facilitate promoting excellence in education standards for increased attention to Education (ACPI) of active learning, (4) promoting Outcomes Strategies," may creative ways to

Although a learning is lacking, ing is an instructional meaningful active student reflection of room lessons to learning with peers collaborative learning.¹⁵ Engaging tasks of teaching students to engage higher-order thinking, ment, the instructional process and helps thinking, a process.^{15,18,19} Proven active learning helps deeply, understanding important concepts, memory retention, motivation for further evaluation.^{12,14,16,}

The benefits of mented in the literature as an important component. As a result, the need using ALS has increased through collaborative greater than the success group,²⁵ a faculty "improving Outcomes Strategies" module. A national design specific faculty through the group working together was selected to offer allow the participants other, share success and provide an outlet was to allow participants ALS in a two-can participants would model was selected

At the time of the research project, both authors were affiliated with the University of Oklahoma College of Pharmacy-Tulsa. Dr Davis held the position of Clinical Assistant Professor/Instructional Design Specialist. Dr Desselle held the position of Associate Dean/Professor and Department Chair.

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leges of Pharmacy (AACP) and created by academicians in pharmacy, dentistry, and education. ES's curriculum includes eight modules: (1) Developing a teaching philosophy, (2) facilitating learning in a traditional classroom, (3) active learning, (4) distance learning, (5) problem-based learning, (6) experiential learning, (7) assessment, and (8) promoting excellence.¹⁰ With recent changes to accreditation standards for colleges and schools of pharmacy,¹¹ and increased attention to Accreditation Council for Pharmacy Education (ACPE) Standard 11, which encourages the use of active learning to teach students,¹¹ one ES module, "Improving Outcomes through the Use of Active Learning Strategies," may be useful for faculty development seeking creative ways to engage students in the classroom.

Although a universally accepted definition of active learning is lacking, it is generally accepted that active learning is an instructional method that engages students in meaningful activities in the classroom and allows for student reflection of the learning.¹²⁻¹⁴ Application of classroom lessons to real-life situations and the sharing of learning with peers comprise the two main objectives of active learning.¹⁵ Engaging the student is one of the most important tasks of teaching,¹⁶ and active learning allows the students to engage multiple learning styles to promote higher-order thinking skills.¹³⁻¹⁷ In an active learning environment, the instructor becomes a facilitator in the learning process and helps raise students' ability to think about their thinking, a process known as *metacognitive awareness*.^{15,18,19} Proven effective at all levels of education, active learning helps students process information more deeply, understand the relevance of material, and stay cued to important content, leading to increased participation, memory retention, transfer of knowledge to new situations, motivation for further learning, critical thinking, and self-evaluation.^{12,14,16,17,20-22}

The benefits of active learning have been well documented in the literature^{12-17,20-23} and recognized by ACPE as an important component in the professional program.¹¹ As a result, the need for faculty development in the area of using ALS has been noted.^{1-3,12,24} Understanding that through collaborative learning, the knowledge created is greater than the sum of the knowledge of individuals in the group,²⁵ a faculty cohort was created to complete the "Improving Outcomes through the Use of Active Learning Strategies" module. The cohort model, led by an instructional design specialist (IDS), was selected to help guide the faculty through the module. A cohort, defined as a small group working together to complete a learning program,²⁵ was selected to offer a structured environment that would allow the participants an opportunity to learn from each other, share successes and challenges, encourage dialogue, and provide an outlet for reflection. The cohort's purpose was to allow participants to explore the issues around using ALS in a two-campus system with the expectation that participants would learn from each other.²⁵⁻²⁷ The cohort model was selected based on research showing that mem-

bership in a cohort can improve scholarly success of members and completion rates.²⁸⁻³⁰ Not only are participants more successful as they work through a program, they are also more successful in the practice of the skills learned.²⁸⁻³⁰ In the cohort model used, the IDS created an environment that provided opportunities for discussion, interaction, reflection, and feedback to foster independence in the participants.

Purpose and objectives

The purpose of this pilot study was to describe faculties' knowledge of, perceptions of, and implementation of ALS in the didactic classroom. In addition, investigators sought to determine the utility of using ES in a cohort format as a professional development tool at the College. Few, if any, studies have documented the use and outcomes of ES modules in pharmacy faculty development. Although mentioned often in health science literature,³¹⁻³⁶ a literature search using the key words "faculty development" and "education scholar" did not return any articles discussing the utility of the online tool ES.

Methods

All full-time faculty at the University of Oklahoma College of Pharmacy (OUCOP), a two-campus system with approximately 130 students per class, were invited to voluntarily enroll in the ES Active Learning Cohort by the College's full-time IDS. The College purchased a site license for ES, and all faculty, regardless of cohort participation, were provided access to the ES site. The IDS developed a learning program for the cohort, assigned module readings, timelines for participation, and facilitated face-to-face meetings that were broadcast between the campuses (Appendix A). The face-to-face meetings used small classroom teaching techniques and incorporated the tools of active learning being presented in the module. The program spanned one semester, with five face-to-face meetings occurring approximately once per month. To maintain the effectiveness of the cohort model described in the literature,²⁵⁻²⁷ the original group was limited to a maximum of 15 participants; 11 faculty volunteered and completed the cohort program. The institutional review board reviewed and approved the project as an exempt study.

Using a pre- and post-questionnaire mixed-methods design, the faculty anonymously answered situational questions (e.g., number of years as a faculty member and teaching experience) and questions about their knowledge of active learning, their perceptions about use of ALS in the classroom, the ALS used in their classroom, and their reasons for participating in the ES Active Learning Cohort. Pre- and post-questionnaires were not matched because of the small size of the participant group. Once completed, each questionnaire could not be matched to an individual to preserve anonymity. The investigators did send two e-mail

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reminders spaced approximately two weeks apart to elicit information after both pre- and post-implementation phases of the cohort program.

Items comprising the initial (pre-) questionnaire were developed in accordance with guidelines recommended by Hutchinson and others.^{37,38} The IDS reviewed literature detailing ALS across multiple disciplines focusing on adult learners in health care fields. Using a four-point Likert-type scale from "Strongly Disagree" to "Strongly Agree," the item questions eliciting perceptions were developed to represent common ALS issues identified in the literature, such as attitudes toward and challenges of implementation of ALS in the classroom.^{12,39} In addition, participants were asked to rate their level of confidence in using ALS. The ES module introduced 15 ALS techniques. Participants were asked about their familiarity with each of 15 ALS covered in the ES module,¹⁰ along with the addition of team-based learning (TBL), a strategy used in multiple classes at the College. Their familiarity with these 16 ALS were elicited using a dichotomous (yes/no) response set. Open-ended questions elicited additional qualitative data about the participants' knowledge of ALS, their perceptions of advantages and disadvantages of ALS, and why they elected to participate in this cohort program. It is the qualitative data that was gathered from the open-ended questions that is the primary focus of this paper. The post-questionnaire used the same questions outlined previously and also asked participants to reflect on the cohort program experience and how it would influence future classroom activities. All questionnaires were anonymous. Basic descriptive statistics were used to examine the objective questions. Although statistical analysis was neither planned nor conducted because of the qualitative nature of this pilot study, it was reported for contextual purposes. The open-ended questions were examined for recurring ideas that could supplement data from the objective questions.

Program description

The ES module introduces strategies that can be used to engage learners in the educational process.²³ The cohort participants were provided the basic program outline (see Appendix A) and the pre-questionnaire via e-mail before the first face-to-face meeting. All participants were requested to bring the completed questionnaires to the first cohort meeting. The College provided support to the program by allowing faculty time to participate in the cohort sessions and purchasing the suggested module resource books. At the first meeting, the department chairs welcomed the participants and encouraged their use of active learning in the classroom; however, they did not participate in the cohort sessions. Each cohort session lasted approximately two hours and used instructional techniques tailored to a small class. The participants were expected to spend five to six hours in preparation between the cohort meetings. Each face-to-face meeting incorporated ALS to allow the mem-

bers an opportunity to experience the activity from a student's perspective. Discussion, reflection, and the sharing of successes/challenges were incorporated into all sessions. Participants were encouraged to use the skills learned in their classes when appropriate.

Results

Five faculty with heavy clinical responsibilities did not teach during the semester after completion of the ES cohort; therefore, they did not have an opportunity to incorporate any of the strategies into a class, and they did not complete the post-questionnaire. In addition, because of the project being a pilot study, the group size was too small to conduct statistical analysis. Pre-questionnaire data provided basic situational circumstances of the participants. Seven of the 11 participants were in their first or second year as a faculty member. Two participants had been faculty members for three or four years, and two participants indicated that they had held a faculty position for more than six years. All 11 participants had lectured or conducted small group activities in at least one course; however, only four of the participants had coordinated more than one course. None of the participants indicated that they had a clear understanding of ALS in the pre-questionnaire. Five of the eleven indicated that they had very limited or no understanding of ALS. One participant stopped answering the questionnaire, indicating that he/she knew nothing about ALS and that was why he/she was joining the cohort. Among the 16 common ALS strategies affiliated with the dichotomous response set, seven or more of the participants reported 13 strategies as new concepts (Table 1).

Attitudinal Likert-style questions indicated that participants had positive attitudes about the use of ALS, both before completing the cohort and after completion (Table 2). Open-ended questions from the pre-questionnaire revealed two primary concerns by the participants about the use of ALS at the College. The first concern involved the two-campus system and the difficulties of facilitating the activity at the distance site. The second concern dealt with time; specifically, less time would be available to deliver the required information through lecture. During each cohort learning session, these issues were discussed along with brainstorming activities to overcome the concerns.

A post-questionnaire was administered to all participants early in the semester after participation in the cohort. Post-questionnaire results indicated that all participants were familiar with each of the active learning strategies included in the module. Of those participants teaching during the semester, two thirds indicated that they had used at least one of the strategies discussed by the cohort (Table 1). Faculty views from the post-questionnaire paralleled the literature in that they believe active learning components would take more time to develop and require more resources than traditional lecture.^{12,13,39} Recognizing the benefits of active learning, the faculty perceptions shifted in that most of the

Table 1
Knowledge and use of

Concept

Think-pair-share
Brain dump
Active note taking
Critical incident
Metaphors, analogies, si
Quick think methods
Advance organizers
Concept mapping
Frames
Feedback lecture
Think-aloud pair proble
Reciprocal Teaching
Micro-situations Teachin
Cognitive apprenticeship
Cases
Team-based learning

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Table 1
Knowledge and use of ALS

Concept	Pre-questionnaire information n = 10			Post-questionnaire information n = 6	
	New concept	Familiar with the concept before participating in cohort	Never used in class	Used in class before participating in cohort	Used in class since participating in cohort
Think-pair-share	7	3	7	3	3
Brain dump	9	1	10	0	1
Active note taking	5	5	8	2	3
Critical incident	8	2	10	0	0
Metaphors, analogies, similes	8	2	8	2	3
Quick think methods	9	1	10	0	1
Advance organizers	9	1	10	0	0
Concept mapping	9	1	10	0	1
Frames	9	1	10	0	0
Feedback lecture	9	1	10	0	1
Think-aloud pair problem-solving	7	3	8	2	1
Reciprocal Teaching	9	1	10	0	0
Micro-situations Teaching	10	0	10	0	2
Cognitive apprenticeship	9	1	10	0	2
Cases	3	7	3	7	4
Team-based learning	5	5	8	2	2

Reported numbers indicate a response of YES on the questionnaires.

participants indicated that they felt active learning would provide more interaction between faculty and students as well as increase student-to-student interaction. In addition, participants overwhelmingly indicated that active learning could lead to higher-order thinking skills by providing connections to real-world experiences and improving student self-confidence (Table 2). They also reported an increase in confidence to use the strategies from 18% with average or above average confidence to 100% after participation in the cohort. Incorporation of cases was the most common form of ALS used by the College faculty in the classroom, followed closely by less intensive forms of active learning (e.g., think-pair-share, active note-taking, and metaphors). Although the faculty participants were more comfortable with the various ALS and had incorporated some of the activities into their classes or lectures, the two primary concerns indicated on the pre-questionnaire were still listed as concerns after the cohort ended. Cohort participants felt that the two-campus system placed limitations on the use of some ALS and would require additional facilitation on the receiving campus side of the class. On the basis of responses from the open-ended questions of the post-questionnaire, the participants indicated that facilitation of the activity on two campuses could be accomplished with advanced planning and scheduling. The issue of less content delivery caused by reduced lecture time also was discussed during cohort sessions, yet continued to be reported as a concern on the post-questionnaire. Mirrored in the literature, the issue of content delivery is a cultural shift for some teachers and takes planning on the part of the teacher to redefine the

concept of "content" in the curriculum from lecture-based delivery as the only way to present content to alternative forms of delivery being considered "content." Practice and continued use of ALS tends to lessen this concern over time as faculty members gain confidence in using ALS techniques.¹³ A third concern, addressed as a Likert-scale question on the questionnaires remained a concern of the participants: that students may not be accepting of new ways of presenting content and that this could lead to lower student evaluations of classroom teaching, a concern that mimicked concerns addressed in the literature.^{12,13,39} The concerns indicated by the faculty could be addressed at the College through communication between the faculty member and the department chair to discuss the consequences of alternative forms of delivery at the administrative level and providing a complete explanation of the activity and its purpose in the classroom.

On the basis of the post-questionnaires, all participating faculty found cohort participation to be a worthwhile experience and would like to see additional cohorts created for the remaining ES modules. Two additional cohorts have completed the active learning module along with two cohorts completing the experiential education module. Cohort faculty indicated that they have implemented ALS into their courses and they reported that the changes appear to have been well-received by the students. All the participating faculty members reported the use or planned use of some type of ALS in their classes after completion of the cohort program, and all reported satisfaction with active learning as a valuable teaching tool. No recommendations for improve-

Table 2

Faculty perceptions of ALS with number of participants agreeing before (pre) and after (post) implementation of the cohort program

Item ALS will . . .	Strongly agree*	Agree	Disagree	Strongly disagree	No answer	Mean	SD
Provide students the opportunity to use higher-order thinking skills	Pre: 4† Post: 5‡	Pre: 6 Post: 1				Pre: 3.40 Post: 4.00	Pre: 0.52 Post: 0
Provide opportunity for greater faculty-to-student interaction	Pre: 4 Post: 3	Pre: 6 Post: 2			Pre: 0 Post: 1	Pre: 3.40 Post: 4.00	Pre: 0.52 Post: 0
May increase the likelihood that the instructor loses control over the classroom		Pre: 3 Post: 4	Pre: 7 Post: 2			Pre: 2.30 Post: 3.67	Pre: 0.48 Post: 0.52
Provide opportunity for greater student-to-student interaction	Pre: 5 Post: 4	Pre: 5 Post: 2				Pre: 3.50 Post: 4.00	Pre: 0.53 Post: 0
Can limit the amount of information presented during the class	Pre: 0 Post: 2	Pre: 9 Post: 4	Pre: 1 Post: 0			Pre: 2.90 Post: 4.00	Pre: 0.32 Post: 0
Can provide negative evaluations in classes where it is used frequently		Pre: 6 Post: 4	Pre: 3 Post: 2	Pre: 1 Post: 0		Pre: 2.50 Post: 3.67	Pre: 0.71 Post: 0.52
Can increase student retention of course materials	Pre: 2 Post: 4	Pre: 8 Post: 1			Pre: 0 Post: 1	Pre: 3.20 Post: 4.00	Pre: 0.42 Post: 0
Provide opportunities to connect the learning material to pharmacy practice	Pre: 3 Post: 4	Pre: 7 Post: 1			Pre: 0 Post: 1	Pre: 3.30 Post: 4.00	Pre: 0.48 Post: 0
Are more challenging than traditional lecture to implement in a distance environment	Pre: 0 Post: 4	Pre: 10 Post: 1			Pre: 0 Post: 1	Pre: 3.00 Post: 4.00	Pre: 0 Post: 0
Can improve student self-confidence	Pre: 1 Post: 3	Pre: 9 Post: 2			Pre: 0 Post: 1	Pre: 3.10 Post: 4.00	Pre: 0.32 Post: 0
Assessment is a valid form of assessment of student learning	Pre: 3 Post: 2	Pre: 6 Post: 2	Pre: 1 Post: 1		Pre: 0 Post: 1	Pre: 3.20 Post: 3.80	Pre: 0.63 Post: 0.45
Are more labor intensive than traditional lecture for the faculty who use ALS	Pre: 0 Post: 2	Pre: 7 Post: 3	Pre: 3 Post: 0		Pre: 0 Post: 1	Pre: 2.70 Post: 4.00	Pre: 0.48 Post: 0
Promote higher levels of learning	Pre: 3 Post: 3	Pre: 6 Post: 2	Pre: 1 Post: 0		Pre: 0 Post: 1	Pre: 3.20 Post: 4.00	Pre: 0.63 Post: 0
Promote higher attendance rates, assuming that attendance is not a class requirement	Pre: 2 Post: 1	Pre: 7 Post: 4	Pre: 1 Post: 0		Pre: 0 Post: 1	Pre: 3.10 Post: 4.00	Pre: 0.57 Post: 0
Require more space and more resources to implement than traditional lecture	Pre: 1 Post: 5	Pre: 4 Post: 0	Pre: 5 Post: 0		Pre: 0 Post: 1	Pre: 2.60 Post: 4.00	Pre: 0.70 Post: 0

* Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1.

† n = 10.

‡ n = 6.

ment in the cohort program were provided. Through the use of a cohort model, participants were able to practice and develop a level of skill in using the strategies before implementing active learning into the classroom.

Discussion

Faculty development is an integral part of any academic program. Studies indicate that a cohort model provides success in learning situations.²⁸⁻³⁰ Recognizing that the paper details one college of pharmacy's activities with a limited number of participants, it showed that using a structured cohort program and an established tool, such as ES, can provide a formal framework for faculty development. The first purpose of the study was to describe faculties' knowledge of, perceptions of, and implementation of ALS in the didactic classroom. Although the group size in this study was too small to generalize outside the participants, it is important to note that all participants indicated a desire to

add ALS to future lectures and classes, indicated more self-efficacy in using ALS, and demonstrated a greater understanding of ALS and how these strategies can be used in the classroom. Faculty teaching in the next academic session reported the use of and satisfaction with ALS in the classroom. Since completion of the program, cohort faculty have worked together on an individual basis in facilitating ALS across the two-campus system. A recent report suggests that active learning is being welcomed by a greater proportion of pharmacy educators, but that knowledge of its implementation and optimization is still lacking.⁴⁰ The same report called for further research on how active learning methods can be used most effectively within pharmacy education and how it can gain broader acceptance. To that end, this study comports nicely with that call, piloting a new program that could elicit group buy-in and also address issues of faculty development and camaraderie, concurrently. The second purpose of the study was to determine the utility of using ES in a cohort format as a

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4.00	Post: 0
2.90	Pre: 0.32
4.00	Post: 0
2.50	Pre: 0.71
3.67	Post: 0.52
3.20	Pre: 0.42
4.00	Post: 0
3.30	Pre: 0.48
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4.00	Post: 0
3.10	Pre: 0.57
4.00	Post: 0
2.60	Pre: 0.70
4.00	Post: 0

professional development tool. Faculty participants in the initial cohort group recommended that the program be continued using the online tools of ES. The participants recommend the cohort format vs. an individualized setting because they felt more accountable to the group and therefore more motivated to prepare before each cohort meeting. This recommendation is supported by the fact that although ES was available to all faculty, only the cohort finished all modules during the academic year as based on faculty self-report of professional development completed during the academic year. The College has offered additional cohort study groups in the areas of active learning and experiential learning. Faculty, preceptors, residents, graduate students, and professional students also have the opportunity to use ES on an individual basis. Tulsa campus residents at the College participating in a longitudinal teaching rotation with the IDS complete multiple modules of ES as a requirement of their education/teaching rotation. Professional students completing individual pharmacy practice experience (IPPE) hours with the IDS also completed ES modules. Residents and students complete the modules on an individualized basis as preparation for a discussion with the IDS on the topics.

The data collected from the first cohort served as a pilot study for the use of ES as a basis for faculty development. On the basis of the response of the faculty and subsequent cohort groups, the College has continued to maintain the site license for ES. Faculty self-reported that they have incorporated additional TBL, discussion, case-based learning, and group projects into courses. Through informal observation, the IDS has noticed an increase in the use of ALS during classroom observations. Faculty completing the ES modules indicated satisfaction with the cohort experience, and they did not propose changes to the format for future cohorts.

Limitations

Some limitations of this study should be recognized. The relatively small number of participants from only one college of pharmacy attenuates the generalizability of their perceptions to all faculty, particularly at other institutions. Moreover, not everyone who participated provided feedback, even after multiple contacts. That said, most participants supplied rich information, with the proportion and level of doing so in accordance with standard practice for this type of research.⁴¹ In addition, the aim of this project was to gain some sense of the potential viability of using this alternative cohort approach to faculty development and is not aimed at precise replication of results across myriad settings. Readers also should be cautioned that the successes, perceptions, and ensuing behavioral intentions of faculty from this cohort might very well have been different if the participants were different, the environment (e.g., different type of institu-

tion, single vs. dual-campus) was different, and/or if the instructional design specialist would have used alternative approaches to leading the group or had varied levels of rapport with participating faculty. Finally, several faculty who did participate in the program did not provide feedback even after repeated contacts. As such, it is possible that faculty who did not provide feedback may have had different, perhaps less positive, perceptions of participating in the program and were less prepared to engage in ALS than did faculty who did participate.

Conclusion

Overall, faculty indicated that active learning would be a positive addition to the classroom, and the participants stated that they had a higher degree of confidence in their ability to use active learning in the classroom. The participants provided feedback about the cohort program and recommended that it continue as a part of the College's overall faculty development activities. The modules provide a structured approach for faculty development, using relevant literature for health care profession faculty members. This College found that a cohort format for delivery of one of the ES modules worked well and allowed the participants to practice ALS, share successes and challenges, discuss potential uses, and explore ways to overcome the barriers in the use of active learning in the classroom.

Appendix: Basic Outline for Education Scholar, Module 3

First meeting

- Overview of ES
- Expectations of IDS and faculty
- Expectations of administration
- Explain the process and time commitment
- First impressions of active learning
- Perceived barriers to active learning at OUCOP
- Hand out the reading materials
- Schedule a time to "participate" in a co-worker's class
- Assignment: Complete 3.0, 3.1, 3.2, and 3.3 before the next meeting

Second meeting

- Personal Positive Learning Experience
- Discussion of attention and retention
- Anything surprising discussion
- Share findings from the readings
- Discussion of barriers to active learning at OUCOP
- Discussion of ways to overcome these barriers
- Begin developing personal plan
- Determine the active learning approaches to focus on during the next weeks

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- Hand out the reading materials
- Assignment: Complete 3.4 and 3.5 before the next meeting
 - Analyze a teaching evaluation (if available)

Third meeting

- Discussion of a personal classroom experience
- Discussion of teaching style
- Discussion of ways to incorporate active learning into their classes
 - How to create a supportive environment
 - Discussion in ways to overcome barriers in their classes
 - Discussion of teaching evaluations and active learning
 - Activities tried
 - Failures/successes
 - Discussion of why
- Determine the active learning deep-think approaches to focus on during the next weeks
- Hand out the reading materials
- Assignment: Complete 3.6 and 3.7

Fourth meeting

- Discussion of deep-thinking activities
- Ways that deep-think can be incorporated into their classes
- Develop a plan to incorporate active learning into their classes
 - Personal readiness
 - Student readiness
 - Situational factors
 - Discuss the case study in active learning
 - Hand out the reading materials
 - Assignment: Complete 3.8

Fifth meeting

- Personal Assessment Plan
- Discussion of activities and assessment that has already taken place in their classroom or their plans to incorporate into the classroom
- Reflection of changes in personal classes

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