STUDENT PERCEPTIONS OF ACTIVE LEARNING

ANGELA LUMPKIN
Texas Tech University

REBECCA M. ACHEN
University of Kansas

REGAN K. DODD
Missouri Western State University

A paradigm shift from lecture-based courses to interactive classes punctuated with engaging, student-centered learning activities has begun to characterize the work of some teachers in higher education. Convinced through the literature of the values of using active learning strategies, we assessed through an action research project in five college courses student perceptions of their impact on learning. Specifically, students were asked to engage in a variety of in-class and out-of-class exploratory writing assignments and pairs and other small group discussions interspersed among short lectures. Quantitative and qualitative data revealed students valued participating in engaging learning activities. Students also affirmed how active engagement positively impacted their learning.

Lecturing remains the predominant instructional method used in college classrooms as many academicians claim it is the most efficient and effective way to deliver content (Lom, 2012). That is, lectures are effectual for teaching and synthesizing information, especially when information is complex, large classes make lecturing economical, and lecturing conforms to the way universities are configured relative to space and time. However, evidence is lacking that this should be the only instructional approach used, especially when too many college students passively sit in classrooms while pretending to pay attention. In fact, an increasing wealth of evidence confirms how active engagement significantly impacts student learning, understanding, and critical thinking (e.g., Bonwell & Eisen, 1991; Komarraju & Karau, 2008; Machemer & Crawford, 2007). As such, the scholarship of teaching strongly affirms what students across most disciplines readily espouse. Endless lectures do not keep their minds engaged as many mentally check out after only a few minutes. To combat this, Bonwell and Eisen (1991), Brookfield (2006), and Cavanaugh (2011) argue that at least every 10-15 minutes lectures should be punctuated by a diversity of learning activities to keep students focused and engaged, which in turn will help them learn.

Creating learner-centered environments is the most important thing faculty can do to optimize student learning (Doyle, 2008). Learner-centered environments, Doyle stresses, are different because they require students to move beyond taking notes and passing tests to embracing new learning roles and
responsibilities. When students exert real control over their educational experiences, they make important choices about what and how they will learn. Higher education, emphasizes Månsen (2013), is experiencing a paradigm shift from teacher-centered instruction to learner-centered instruction. This learner-centered paradigm requires teachers who value maximizing opportunities for students to learn, while urging students to accept that what is learned in any course will always be their responsibility.

“Student-centered instruction is a broad teaching approach that includes substituting active learning for lectures, holding students responsible for their learning, and using self-paced and/or cooperative (team-based) learning” (Felder & Brent, 1996, p. 43). Cavanagh (2011) concludes cooperative activities help students understand content better because they are more actively engaged. In fact, cooperative learning leads to deeper learning and increased critical thinking (Millis, 2010). Doyle (2011) astutely concludes, “Neuroscience, biology, and cognitive science research have made it clear that the one who does the work does the learning” (p. 1). No doubt, students learn best when they engage actively in the learning process (Davis, 1993).

So, who is right — the defenders of only lecturing, or are the advocates of engaging students more actively in their learning? To help answer this question, we examined the literature on numerous instructional practices and from these chose exploratory writing assignments and small-group discussions as learning strategies to intersperse with short lectures (See Figure 1). Specifically, we wanted to gain a better understanding about student perceptions of engagement in one or more of these activities as each relates to their learning.

The purpose of this action research project is to quantitatively and qualitatively assess how students perceive the use of a variety of exploratory writing assignments and small-group discussions. We hypothesize our students in five courses will learn more and enjoy the learning process more by participating actively than they would in lecture-based courses. If student perceptions strongly support use of active learning activities, this will provide further evidence of their validity and encourage us and others to

![Figure 1. Punctuating Lectures to Enhance Student Learning](image-url)
explore how use of a myriad of active learning strategies will benefit students. As Bonwell and Eisen (1991) stress, “Developing instructional strategies to help students learn to think creatively and critically has become recognized as one of the most pressing educational challenges facing faculty today” (pp. 76-77).

Review of Literature

Active learning “involves students in doing things and thinking about the things they are doing” (Bonwell & Eisen, 1991, p. 2). Simply stated, as students read, write, discuss, and problem solve, they learn more (Millis, 2012). Prince (2004) added, “The core elements of active learning are student activity and engagement in the learning process. Active learning is often contrasted to the traditional lecture where students passively receive information from the instructor” (p. 2). Active learning included any activity encouraging students to participate in learning approaches engaging them with course material and enhancing critical thinking as they make applications beyond the classroom.

Bonwell and Eisen (1991) stated emphatically, “…research suggests that the exclusive use of the lecture in the classroom constrains students’ learning” (p. 24). They emphasized numerous research studies have shown conclusively through student achievement that active learning strategies are comparable to lectures in promoting student mastery of content while superior to lectures in promoting the development of students’ skills in thinking and writing. They added, “…some cognitive research has shown that a significant number of individuals have learning styles best served by pedagogical techniques other than lecturing” (p. iii). For example, discussions, questioning techniques, and short writing activities in class can skillfully engage students’ exploration of the subject matter. They concluded if an instructor’s goals include developing critical thinking skills, then lectures should be interspersed with alternative learning strategies.

When the objectives of a course are for students to retain information after the end of the course, to be able to apply knowledge to new situations, to change students’ attitudes, to motivate students toward further learning in the subject area, or to develop students’ problem-solving or thinking skills, however, then discussion is preferable to lecture.” (Bonwell & Eisen, 1991, p. 36)

Bachman and Bachman (2011) argued that the constructivist approach places students at the center of the learning process as teachers help students interact with content and create their own knowledge. After investigating student perceptions and finding students with different types of academic motivation responded differently to instructional practices, Komarraju and Karau (2008) concluded different instructional techniques should be used to most effectively reach all students. They stated, “Teachers using instructional techniques that encourage students to reflect on their own learning, provide them with feedback, give them a chance to review material, and encourage them to take responsibility for their own learning tend to increase learning” (p. 73). Merely attempting to pass knowledge on through lectures is much less effective than engaging students in the learning process.

Machemer and Crawford (2007) have joined the chorus refusing to accept students as passive listeners and calling for active learning experiences placing the student at the center of the teaching-learning process. Active learning, they emphasized, did not negate the need for lectures; rather it “provides opportunities for students to reflect, evaluate, analyze, synthesize, and communicate on or about the information presented” (p. 10). The passivity
of lecture-based courses can be effectively transformed using active learning strategies focusing on students rather than on teachers as the conveyers of all knowledge. Interactive learning prepares students better as they are exposed to the thinking approaches of classmates foreshadowing the interdisciplinary teams of real-world situations (Machemer & Crawford, 2007).

Diamond (2008) concluded active involvement was much more effective than passively listening to lectures and offered several insightful assessments. Among these, he stressed students’ effort and involvement, such as hours spent studying, determined how much they learned; students learned more through positive reinforcement and interactions with other students and faculty; and the instructor and learning environment affected students’ motivation to learn. To this list of benefits of active learning, Cavanagh (2011) added higher student motivation, better student attitudes, improved critical thinking skills, and more self-directed learning. Additionally, Yazedjian and Kolkhorst (2007) suggested active-learning activities positively affected the degree of students’ retention and retrieval of knowledge and affirmed active learning helped students make practical applications of abstract concepts. They concluded how small-group activities, “although requiring more work on the part of the instructor, can be an effective strategy for promoting classroom engagement in that they compel students to take on a more active role in the learning process.” (p. 169)

Student and faculty perceptions have supported the espoused benefits of active learning. Based on an examination of perceptions of students and faculty about student engagement, faculty practices, and institutional characteristics in two nationally representative data sets, Umbach and Wawrzynski (2005) reported “higher levels of engagement and learning at institutions where faculty members use active, collaborative learning techniques, engage students in experiences, emphasize higher-order cognitive activities in the classroom, interact with students, challenge students academically, and value enriching educational experiences” (p. 153). Since faculty attitudes, beliefs, and behaviors fostered student learning when faculty emphasized these best practices, Umbach and Wawrzynski encouraged faculty to include active learning activities as well as emphasize higher-order cognitive activities, such as the application of learning or synthesis of ideas, to help students learn more.

Continuing the overwhelming support for the incorporation of active learning strategies in college courses, the literature specifically supports the use of exploratory writing activities to increase student learning. Additionally, there also is significant support for the use of small-group discussions to enhance student engagement and learning. The next section of the literature review provides a focused overview of these active learning strategies.

**Exploratory Writing Activities**

Interspersing short writing assignments in class or punctuating lectures with a variety of writing exercises has been found to impact quality of student learning (Angelo & Cross, 1993). One example of exploratory writing occurs when teachers ask probing questions to review previously taught content and ask students to think about responses and then share their responses with classmates. A second example is posing questions so students reflect on key points presented during a short lecture followed by their explaining their understanding of these concepts in writing. A third example invites students to respond to a “check for understanding” during or outside of class or minute papers in class to ensure they fully understand key concepts. Exploratory writing assignments, especially those completed in class, involve students in course
content by asking them to put ideas on paper, thus expanding their critical thinking skills. Exploratory writing helped students prepare better for class, engage in richer discussions, become more thoughtful, and improve critical thinking and learning (Angelo & Cross, 1993; Davis, 1993). Because many undergraduate students were not experienced or confident writers, completing exploratory writing assignments helped them learn through reflection (Bean, 2011).

Bean (2011) advocated, "Perhaps more than any other instructional tool, exploratory writing transforms the way students study for a course because it can make active critical thinking about course subject matter part of each day’s homework" (p. 7). Bean recommended 22 approaches for incorporating exploratory writings into courses including at the beginning of class to probe a subject, during class to refocus a lagging discussion or cool off a heated one, during class to ask questions or express confusion, and at the end of class to sum up a lecture or discussion. He concluded,

The evidence from both research and instructor testimony seems irrefutable: exploratory writing, focusing on the process rather than the product of thinking, deepens most students’ engagement with course material while enhancing learning and developing critical thinking....The payoff of exploratory writing is students’ enhanced preparation for class, richer class discussions, and better final-product writing. (pp. 144-145)

Davis (1993) agreed exploratory writing helped students learn course content, synthesize ideas, and identify points they failed to understand. When any student’s misunderstanding was identified through exploratory writing, teachers could redesign and sequence future instruction to explain key concepts more clearly or clarify content, such as through the use of minute papers and “checks for understanding.” Also advocating exploratory writing, Fry and Villagomez (2012) emphasized using the pedagogical approach of “writing-to-learn” because it helped students understand a topic more clearly by reasoning through it in writing. These authors reported, “qualitative analysis suggested that many students improved in their metacognitive and reflective thinking over the course of the semester as evidenced by deeper, richer writing in response to the prompts” (p. 173).

Numerous researchers have advocated the use of minute papers (Angelo & Cross, 1993; Brookfield, Cooper, & Robinson; Lom, 2012; Mannson, 2013; Nilson, 2010; Mills, 2012). Minute papers provided another example of in-class writing as students were asked to briefly reflect on content at the end of class by responding in writing to two questions: What was the most important thing you learned today in class?; and What important question remained unanswered or concept remained unclear or needed further explanation? Anderson and Burns (2013) and Stead (2005) reported the use of minute papers allowed students to make connections between key content and other knowledge and apply what they learned to other situations. Minute papers encouraged active learning, helped with constructivist learning, prompted students to ask questions, provided immediate feedback to students about their understanding, and improved students’ writing (Stead, 2005).

As the authors cited in this section emphasized, exploratory writing required reflection, deepened students’ understanding and long-term recall, and linked prior knowledge to readings and class discussions. Reflectively making connections and applying disciplinary theories and concepts to real-world scenarios and issues made learning more enjoyable and enduring.
Small-Group Discussions

Small-group discussions challenged student assumptions and improved problem-solving skills by requiring students to interact with one another and course material (Millis, 2012). Pairs and other small-group discussions have been shown to be powerful learning tools by Ambrose (2010), Cavanagh (2011), Doyle (2008, 2011), McKeachie, Svinicki, and Hofer (2011), Millis (2002, 2010, 2012), and Prince (2004). Further supporting use of small-group discussions, Davis (1993) concluded, “students working in small groups tend to learn more of what is taught and retain it longer than when the same content is presented in other instructional formats” (p. 147). Hamann, Pollock, and Wilson (2012) emphasized participation in small-group discussions enhanced student learning. Additionally, when teachers used discussions “…students get to know each other better, raise questions on course material, stimulate interest in the course, and raise overall student satisfaction with the discussion, small groups may be the best way to achieve those goals” (Hamann, Pollock, & Wilson, 2012, p. 72). These outcomes contributed to the value of incorporating small-group discussions in classes.

Brookfield and Preskill (2005) and Cooper and Robinson (2000) offered several strategies to facilitate small-group discussions and emphasized using varying group sizes and number of students. Cooper, MacGregor, Smith, and Robinson (2000) emphasized teachers must articulate clear ideas about what they wanted students to learn, give thoughtfully structured assignments, help ensure goals were achieved using active learning strategies, and implement meaningful assessments of learning. They reported teachers who incorporated small-group activities into their classes found increased learning, much greater conceptual understanding, more complex critical-thinking skills, better class attendance, and greater confidence.

Benefits of small-group discussions included “checking for understanding,” preparing for lectures to follow, refocusing on information presented, increasing student engagement, and enhancing student learning (Cooper & Robinson, 2000). Additionally, Doyle (2008) listed nine benefits of students working with others: (1) improves students intellectually, (2) stimulates interest in learning, (3) increases confidence in intellectual and social abilities, (4) improves understanding of group dynamics, (5) helps students learn to express feelings, (6) helps build assertiveness skills, (7) enhances awareness of diverse views and ideas, (8) exposes students to different ways of thinking, and (9) validates existing ideas and beliefs. Barkley, Cross, and Major (2005) added the benefits of collaborative group learning included content mastery, critical thinking, problem-solving abilities, development of valuable interpersonal skills, more positive attitudes toward the subject matter, and an increased motivation to learn more.

Moreover, Yazedjian and Kolkhorst (2007) reported small-group activities enhanced processing and comprehending course material, reduced anonymity associated with large lecture classes, and promoted student accountability. To help ensure small-group activities enhanced learning, they also emphasized clearly stating goals and objectives and framing questions and tasks so students could use their knowledge to help shape and absorb new information. Class engagement benefitted students socially as well as intellectually.

Clear evidence from teachers has continued to reaffirm the positive outcomes of regularly incorporating active learning strategies in classes. Active engagement in critical thinking and reflective writing successfully improved student learning, especially when done in groups or pairs. This literature review affirmed the value and importance of incorporating activities in classes to enhance student engagement.
While numerous teachers used these strategies and found them beneficial to students, evidence specifically about student perceptions of active learning classroom strategies remained somewhat limited. We chose to use action research to add to the literature describing student perceptions of active learning strategies. As more teachers shifted from a traditional lecture-based approach to more active learning environments, we concluded additional research about student perceptions of participating in active learning strategies and any resultant learning benefits was needed.

The research questions framing our study include: 1) What are student perceptions of exploratory writing assignments as they impact their learning?; 2) What are student perceptions of small-group discussions as they impact their learning?; 3) What are student perceptions of exploratory writing assignments as they impact their enjoyment of learning?; and 4) What are student perceptions of small-group discussions as they impact their enjoyment of learning?

Method

We used action research to investigate student perceptions of the impact of active learning strategies on their knowledge and enjoyment of the learning process. As a basis for this study, we read and discussed a plethora of research describing numerous active and learner-centered strategies about how to increase student involvement in classes. Using this knowledge, we chose the instructional strategies explicated in the literature we believed were most appropriate for our students. Figure 1 illustrates the interface among these active learning strategies as they relate to lecturing and student learning. Using a course design template, we described the purpose, planning process, and implementation for using each strategy. After the semester ended, we added our reflections about how writing activities and group work helped achieve learning outcomes. Also, we reflected on student feedback about participating in these activities. In designing the action research project, we determined student perceptions of the activities were an appropriate measure of learning activities including the impact of these activities on student learning and enjoyment in using these activities.

A variety of writing assignments and small-group discussions were used across 5 courses, with a total enrollment of 208 students, with the goals to help each prepare better for class, engage in richer discussions, improve critical thinking, and achieve learning outcomes. Specifically, these courses included the following: Introduction to Sport Management, a prerequisite, required course for admission into the sport management major that also could be taken as an elective (n = 80); Sport Finance and Economics, a junior/senior required course restricted to sport management majors (n = 65); Human Sexuality, an elective course open to all undergraduate students (n = 16); Exercise and Sport Nutrition, a required course for physical education majors (n = 20), and Ethics in the Sport Industry, a required course in the master's degree program in sport management (n = 27).

Exploratory writings were uniquely implemented across the five courses. Undergraduate students were asked to write their answers to questions about assigned readings or information presented to assess learning either in the middle of class to reflect on a particular concept or at the end of class to review concepts discussed. For example, students were asked to describe in writing the major points or thesis of the assigned reading for a class. Alternatively, after the teacher lectured about a foundational concept or students discussed this concept with a classmate, students then were asked to summarize in writing what they had learned. Graduate students were asked to complete in-class as well as out-of-class writing assignments to
demonstrate their understanding of a topic or discuss an ethical issue.

The purpose of asking about what students believed was important and if any concept remained unclear through minute papers was to get timely feedback about how effectively content was being learned. A combination of in-class and out-of-class writing for undergraduates asked students to complete "checks for understanding" to encourage them to assess what they did and did not understand about information on a specific topic by answering questions and subsequently ask questions of the teacher about anything remaining unclear.

Working in pairs and small groups during class was designed to challenge students' understanding of content, help them review important concepts and apply new concepts learned, and provide active, change-of-pace learning opportunities. Prior to each lecture, difficult concepts needing reinforcement were identified as potential discussion topics. At least once per class, but usually multiple times, each student was asked to pair with a classmate to discuss the assigned reading, review or apply a specific sub-topic, or discuss how to answer an instructor's question. Typically, students were asked to work with different classmates each time so no student was left less engaged and to enable students to learn from a student who might better understand the content.

Use of small groups facilitated opportunities for explaining difficult topics to classmates, applying real-life situations using course content, and learning from each other through peer feedback. Groups could include two to four classmates who sat in close proximity to each other, with students asked to sit in a variety of seats throughout the classroom so they could form groups with different classmates. Group discussions were used to increase understanding and encourage critical thinking because many responses and reactions to discussion questions could be shared. To encourage students to stay on task, sometimes students were asked to share their results orally with the class or turn in written reports of discussions.

Student perceptions were measured through course feedback gathered at the end of the semester. Feedback was solicited through an author-designed questionnaire students were asked to complete anonymously in conjunction with regular course evaluations. The teacher was not present while students completed their responses. To encourage students to respond, no demographic information was collected to further ensure student responses would remain anonymous. A student volunteered to place completed questionnaires in an envelope and return it to the instructor. The first question asked students to check, using a three-point scale (0 = not at all; 1 = sometimes; and 2 = often), the degree of positive impact on learning for each instructional activity used in the class (i.e., the list of the activities varied for each course). Students were asked to choose which activity was most and least helpful to their learning, which they enjoyed the most and least, and why for each question. Quantitative (frequency) data and qualitative (students' written comments) from five courses were compiled to organize student perceptions of each active learning strategy used.

Results

Undergraduate students found exploratory writing beneficial (44% often; 44% sometimes). One student commented, "I think that sometimes we don't know ourselves well enough to explain how we became who we are so spending time to write it out helps to find things out." Graduate students rated in-class writing as helpful (52% often; 48% sometimes) to their learning. Three students commented, "It forced understanding on a subject without too much overanalyzing"; "Forces on spot comprehension of material";
and “Good practice with writing skills and critical thinking.” Many students stated they found “checks for understanding” very helpful in studying for tests. For example, 84% reported “checks for understanding” often positively impacted their learning, while 14% responded that these did so sometimes. One student summed it up by saying, “Bringing things up multiple times helps me remember the important information.” When asked about minute papers, 17% of students found these positively impactful, while 35% stated these sometimes had a positive impact. Comments about minute papers from undergraduate students included, “It reinforced a new concept we learned and let us ask a question anonymously,” “It helped get everyone on the same page;” and “It was a good way to refresh my mind and jot ideas on paper and unanswered questions were anonymous.”

Data indicated students overwhelmingly believed working in pairs and small groups positively impacted their learning. For example, undergraduates stated working in pairs often (35%) and sometimes (54%) had a positive impact on their learning, while graduate students (44% often and 52% sometimes) found discussions in pairs beneficial to their learning. Regarding working in small groups, students in the 4 undergraduate courses believed these activities positively impacted their learning (44% often and 44% sometimes). In the graduate course, 59% often and 41% sometimes found working in small groups impactful. Student comments indicated small-group work aligned with course objectives as shown in Table 1. For example, one student said, “Hearing everyone’s opinions and stories helped when talking about different subjects; made information stick in my mind.” Another undergraduate student commented, “Very helpful to interact with others.” “Additionally, a graduate student offered, “Being able to have a voice and opinion in a small setting and argue your stance.”

Discussion

Bountiful evidence from faculty confirms how active, collaborative activities engaged students and positively impacted learning as Angelo and Cross (1993), Barkley et al. (2005), and Umbach and Wawrzynski (2005) emphasize. Our students perceive when lectures are interspersed with exploratory writing and small-group discussions (as illustrated in Figure 1), their learning is positively impacted. Based on qualitative and quantitative evidence, students state that when they reflect upon, write about, and then discuss what they are learning, it clarifies their thinking and deepens their understanding and retention. As such, the majority of our students were able to make more concrete and thoughtful real-world applications of concepts they are learning. Additionally, comments from students suggest they want to have their voices heard and find value in interacting and collaborating with other students.

Overall, active involvement indicates students appreciate participating in a variety of class activities as they learn through writing and discussing course content which supports the findings of Angelo and Cross (1993), Barkley et al. (2005), Bonwell and Eison (1991), Cooper and Robinson (2000), Doyle (2008, 2011), Millis (2012), and Prince (2004). That is, students find participating in active learning activities an invigorating break, interesting, interactive, and enjoyable. Students comment how writing helps with self-reflection and clarifies their understanding. While it is often assumed students do not like to write, they clearly find writing useful to their learning. Other students report discussions with classmates help them understand ideas better and grasp different points of view. Students indicate how in-class writings and small-group discussions facilitate their willingness to answer questions in class after having a chance to write about and discuss possible responses. Additionally, students appreciate how writing
### Table 1: Students' Comments about How Instructional Strategies Aligned with Learning Outcomes

<table>
<thead>
<tr>
<th>Course</th>
<th>Learning Outcomes</th>
<th>Selected Students' Comments about Instructional Strategies and Impact on their Learning</th>
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<tbody>
<tr>
<td>Undergraduate Course</td>
<td>Students will be able to describe, analyze, and apply the principles and issues in sport management by developing critical thinking skills through research and writing.</td>
<td>• “We were able to take what we learned and apply with other people”&lt;br&gt;• “Seeing how other people got their answers or viewed articles compared with your own”</td>
</tr>
<tr>
<td>Undergraduate Course</td>
<td>Students will be able to describe, analyze, and apply issues associated with the financial operations of intercollegiate athletics and professional sports.</td>
<td>• “Enabled us to share our understanding”&lt;br&gt;• “Very helpful to interact with others”&lt;br&gt;• “Chance to discuss with classmates; further our understanding”</td>
</tr>
<tr>
<td>Undergraduate Course</td>
<td>Students will be able to identify and describe feelings about human sexuality, understand how empirical research data relates to human sexuality, and demonstrate an increased understanding of controversial social issues related to human sexuality.</td>
<td>• “I get to talk to others and see how they feel and tell people my opinion and thoughts”&lt;br&gt;• “We bonded in our little group”&lt;br&gt;• “I think the discussion style of teaching got everyone involved and interested. Some students helped other students understand a certain perspective”&lt;br&gt;• “I would have to say that allowing us to engage with other students is a great way to learn. We take the information we learn and discuss it, which leads to a way better understanding. Great tool!”&lt;br&gt;• “We were able to talk and get a better understanding of a topic after we had gone over it in notes in the class”&lt;br&gt;• “Loved that we could talk with you the instructor, and other students as well”&lt;br&gt;• “Because it really got all the things you wanted to say about a particular topic and your neighbor didn’t always think the same way you did, which was interesting and made it easier to remember the subject content”&lt;br&gt;• “It’s both fun and enlightening to hear other people’s perspectives on these topics”</td>
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<td>Undergraduate Course</td>
<td>Students will be able to explain the functions and roles of essential nutrients in the body and demonstrate an increased understanding of specific nutritional and weight management practices.</td>
<td>• “I liked hearing what others opinions/thought processes were”&lt;br&gt;• “Because you get to work with classmates and talk about different opinions”&lt;br&gt;• “Other people had good ideas about the material”&lt;br&gt;• “It helped us see the information from someone else’s perspective”&lt;br&gt;• “Because I got to see someone else’s view or opinion on the question”</td>
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<td>Graduate Course</td>
<td>Students will develop their abilities to reason morally and challenge their personal perspectives and past experiences as they learn how to apply a principled decision-making process to ethical issues in sport.</td>
<td>• “Gave more of an opportunity to discuss openly”&lt;br&gt;• “Generated good discussion”&lt;br&gt;• “It was interesting to hear others’ opinions and to form your own”&lt;br&gt;• “It provided more viewpoints and perspective when looking at topics”&lt;br&gt;• “In ethics sharing ideas is so important”</td>
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and discussing give them time to formulate more thoughtful answers to questions we ask in class and stimulate better class discussions. Anecdotally, students express how learning activities effectively varies the pace of classes, thus making them more enjoyable.

Through use of a variety of exploratory writing activities and small-group discussions, this action research project demonstrates positive student perceptions of enhanced learning through active engagement with course content. Often, students' body language in class indicates they are unwilling to engage in small-group discussions or find writing in class unenjoyable. However, our results suggest students overwhelmingly find value in active learning activities, even if teachers do not perceive this to be the case. Even if some students seem reluctant, teachers should still use writing and discussions to improve learning and the classroom environment. After listening to lectures, students write about and discuss among classmates course content to explicate their learning. Qualitative and quantitative data from students with multiple ways of learning specifically support the use of a variety of active learning strategies because they learn more.

Active engagement leading to perceptions of greater student learning trumps content coverage. Today, increasingly higher education holds faculty accountable for providing evidence of actual student learning. Relying on assumptions about what students do and or do not find helpful to their learning has been shown to be unreliable and indefensible, or at least not acceptable to outside stakeholders. Assessments of student perceptions about what helps them learn should not be based on body language or what the teacher thinks. Rather, it is imperative that formal evaluations of what leads to enhanced learning are conducted through action research in courses. Since qualitative and quantitative data verify when students are involved and interact during class time, class periods are perceived by them as more academically productive and enjoyable. Therefore, it is incumbent on teachers to modify and expand their teaching strategies to make classes student-centered instead of lecture-based.

Conclusion

Several lessons emerge from this action research project. For example, scaffolding shorter, low-stakes assignments before advancing to longer and more analytical writing makes exploratory writing assignments even more beneficial to students. Alternatively, exploratory writing assignments ask students to address the pros and cons of ethical situations or argue one side of a controversial ethical dilemma. Adding more exploratory writings increases students' understanding of key concepts and helps students reason through difficult topics while building on existing knowledge. Providing additional feedback on responses to minute papers, such as through re-teaching content that remains unclear, also helps students learn more. Regarding the enhancement of small groups, greater clarity by aligning learning outcomes with assigned tasks as well as requiring note taking by every student, reporting to the class the key points of discussions, sharing findings with non-group members, or submitting a written report from each group are alternative strategies.

This action research project could prompt other faculty to diversify and expand their instructional methods, which in turn would improve student perceptions of their positive connections between active engagement and learning. Three critical "calls to action" emerge from this action research project. First, all teachers are encouraged to incorporate more active learning strategies in their classes. Second, it is incumbent on all teachers to vary the use of active learning approaches to meet the academic needs of students. Third, every instructor owes it to students to assess
their perceptions of learning activities and then modify teaching accordingly. Among these, the most important result of this study is the need to evaluate teaching strategies to ensure learning objectives are met and student learning enhanced. We believe soliciting anonymous student perceptions provides valuable, useful insights for ways to improve course design and instructional approaches.

Suggestions for future research include an encouragement for more faculty to conduct action research in their courses so they can discover more about how students perceive their learning. Helpful in this process would be development of valid and reliable assessments of student perceptions to connect learning outcomes to specific active learning strategies used.

References


