# FACULTY PERCEPTIONS AND USE OF EXPERIENTIAL LEARNING IN HIGHER EDUCATION

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**Keywords**: Experiential learning, Project based learning, Problem based learning, Service learning, Place based learning, Collaborative learning, Higher education, Faculty perceptions.

Experiential learning is popular with students as it is considered more enjoyable and leads to deeper learning when compared to didactic approaches. Employers prefer hiring students who have learned experientially and yet emerging research indicates that the use of experiential learning in higher education institutions remains limited. This research surveyed faculty on their use of and views regarding experiential learning across US institutions focusing on undergraduate teaching. Findings indicated that dominant obstacles to using experiential approaches were classroom structure, class size is too large, not enough time, difficult to cover all the curriculum, and faculty resistance. Findings and their implications for practice and future research are discussed.

## 1 Introduction

Before the invention of books and the advent of formal schooling, human beings learned through direct experience. We would try something, and if it didn't work, we would try something different until we found a solution to the problem. For example, if a spear broke while trying to kill an animal, we found ways to make the shaft stronger or the point sharper. Young children, before beginning their formal schooling, are no different in that they attempt things multiple times until they find a solution. Human beings have become adept at learning through trial and error, and through this process we learn from making mistakes.

This type of learning is what John Dewey spent his entire life researching. He wrote volumes of books that center on the need for direct experience in our education system. Dewey was an educational reformer back in the late 1800s and early 1900s who wrote about the importance of integrating educative experiences in the learning process. Some of his scholarly writings include, *How we think* (1910), *Democracy and education* (1916), and *Experience and education* (1938a). Dewey (1938b) believed an educative experience consisted of a combination of thinking and doing and described in specific detail his learning theory called the "pattern of inquiry" that includes an indeterminate situation or problem, creating a plan to solve it, testing the plan against reality to determine its worth, and reflecting on its value (pp. 101-119).

Unfortunately, his ideas were often misinterpreted. Dewey founded the University of Chicago lab school in 1894 (Encyclopedia of educational theory and philosophy, 2014, p. 455-458), during which time lab schools where being created all across the country. Teachers in these lab schools often believed the way to provide students with educative experiences was to leave the classroom and explore the world. Dewey (1938a) argued that this does not necessarily lead to any significant learning. "The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative" (p. 25). Going on a field trip to a park, for example, may not result in any learning if the experience is not guided by the educator and then reflected upon by the student. This misunderstanding of experiential learning continues to happen all too frequently, even in today's classrooms.

Another pillar in the field of experiential learning is David Kolb. Kolb (1984), who also wrote extensively on this topic created a slightly different learning theory than Dewey. With his theory concrete experience occurs at the outset of the learning cycle, which is followed by reflective observation, abstract conceptualization, and active experimentation (1984, p. 38). Concrete experiences often occur outside the classroom, however this is not necessary for learning to occur. What is necessary is to undergo an experience, reflect on it,

and draw concepts that can be applied to future experiences. With Kolb's theory reflecting on experience allows one to make connections between experience and theoretical concepts that can then help improve upon and enhance similar future experiences. Undergoing an experience without reflection leaves learning to happenstance, and Kolb's learning theory is intentional, not whimsical.

More recently, writers have taken the theories and concepts created by Dewey and Kolb and applied them to various learning environments. For example, Wurdinger and Carlson (2009) identified five teaching approaches including: active learning, problem based learning, project based learning, service learning, and place based learning that promote student engagement in the classroom (p. 7). They argue that experiential learning is guided by certain principles including: "promoting hands-on learning, using a problem solving process, addressing real world problems, encouraging student interaction with each other and the content, engaging in direct experiences, and using multiple subjects to enhance interdisciplinary learning" (p. 8). and all of these approaches allow students to engage in a cycle of learning that includes planning, testing and reflecting.

The researchers of this article view experiential learning as a cognitive process that incorporates Dewey's Pattern of Inquiry of planning testing and reflecting, all in the same learning experience. The learning cycle is initiated when educators use teaching approaches such as problem based learning, project based learning, service learning, and place-based learning.

All the writers mentioned above view experiential learning as a cognitive process and the place where learning occurs is less significant than the actual process itself, which includes a combination of thinking and active experimentation. This process is more complex than much of what occurs in today's college classrooms where students take notes during lectures and then recite this information over and over in their heads until it sticks for their exams. Lectures result in a cerebral process of memorization and are void of hands-on learning.

Experiential learning entails undergoing multiple trial and error attempts and learning from mistakes is a critical component of the process. Since this process incorporates a cycle of thinking, planning, testing and reflecting, it not only requires longer periods of time to complete, but may also require students to leave the classroom in order to test out their ideas in different contexts. This may be why educators in traditional classroom settings sometimes shy away from using it.

Experiential learning appears to be under utilized in higher education. According to Rosenstein, Sweeney, and Gupta (2012) "traditional fields of study have been slow to embrace experiential learning in their curricula and many do not embrace the practice at all (p. 139). Educators may understand, intuitively,

that this process is effective but according to the Higher Education Research Institute Faculty Survey (2011) close to forty-five percent of faculty use lecture as their primary teaching method (p. 3). Work-loads, time constraints, and class size have also been identified as reasons why it is not used (Remmen & Froyland, 2014). Even though Hake (1998) in his comprehensive survey of 6500 students found that interactive methods are far superior on improving academic performance than the lecture method, experiential learning continues to lack implementation? The researchers of this study hope to uncover faculty perceptions of this method, as well as how often they use it in their classrooms.

## 2 Relevant Literature

Even though the research on faculty perceptions of experiential learning is lacking, there are several studies that are pertinent to ours. Hou and Wilder (2015) found that almost fifty percent of 1200 faculty they surveyed were either in a stage of unawareness or pre-contemplation on the use of service learning, which is one of the prevalent experiential learning techniques. Being unaware of this technique might be one reason why the lecture format may be more heavily used than other methods.

Rosenstein, Sweeney and Gupta (2012) sent out an on-line survey about experiential learning to thirty-six department chairs from a variety of different disciplines and received thirty-five responses. Survey questions focused on aspects such as definitions, purposes, student participation, activities, and assessment. Eighty percent defined it as hands-on learning or learning by doing, and one third of the respondents included cognitive activity such as observation and reflection in their definitions. Ninety-one percent mentioned that experiential learning was widely used by their faculty, especially during students' junior and senior years, and eighty-eight percent mentioned that it was either beneficial or very beneficial for students.

MvIntyre, Webb and Hite (2005) conducted a survey study on faculty views and participation in service learning and found that most agreed or strongly agreed that this teaching technique enhances skills such as problem solving, critical thinking, and interpersonal relationships (p. 41). Similarly, a research study conducted by Hesser (1995) on faculty attitudes about experiential learning, found that most surveyed participants believe it has the potential to significantly improve life skill development.

Hesser's survey, completed by forty-eight faculty from various disciplines, identified skills such as writing, communication, critical thinking, and problem solving as having the potential to be enhanced through service learning activities (p. 35). In addition eighty-three percent of the faculty surveyed mentioned that service learning was an effective experiential method for teaching a course.

This study concluded that there was strong evidence to support the idea that faculty with varying ranks and from various disciplines have begun to embrace the use of experiential education (p. 37).

Coker and Porter (2015) found that after numerous panel discussions with faculty at Elon University they were in favor of increasing the amount of experiential learning they were providing their students (p. 67). During their study the faculty increased the number of direct experiences from one to two units and found that it significantly increased student learning and their career development opportunities. Students that only had "one experience were 33 percent less likely to have a job at graduation and 26 percent less likely to be accepted to graduate or professional school than similar graduates with more experiences" (p. 67).

## 3 The Study

The purpose of this research study was to examine faculty perceptions and use of experiential learning. An eighteen-question Qualtrics survey was created to collect data on faculty perceptions of experiential learning, as well as whether they believe this learning process helps students develop life skills including: critical thinking, problem solving, creativity, communication, collaboration, time management, responsibility, perseverance, work ethic, and self direction.

The researchers used the teaching approaches identified by Wurdinger and Carlson (2009) that include active learning, problem-based learning, project-based learning, service learning, and place-based learning (2009) to provide a conceptual framework and to craft their survey questions. However, they replaced active learning with collaborative learning, which is a newer term that incorporates many of the same concepts and techniques as active learning, and has a rich research foundation (Barkley, Major & Cross, 2014).

In addition to including questions on the five teaching approaches in the survey, it also included student presentations as a sixth option. The survey asks participants to identify which of these teaching approaches they use, as well as the percentage of time they use each of these approaches in their classes.

Other questions focus on what types of out-of-class experiences they provide their students, what makes it difficult for them to implement experiential learning, and whether experiential learning teaches students life skills. All the questions except 1 and 11 were closed questions and ask faculty to click on their responses. Questions 1 and 11 provide an option to answer "other" and to explain what they mean by "other". Institutional review board approval was obtained prior to sending out the survey.

The researchers sought out assistance from the Market Data Retrieval Company located in Chicago, Illinois to obtain a nationwide faculty email

list in order to maximize the sample pool. Faculty teaching in undergraduate programs from four-year institutions across the country were surveyed. Of the 3400 surveys sent out, 295 were returned which equates to a nine percent return rate.

## 4 Findings

Of the 295 surveys returned 13 percent of the respondents were fixed term, 26 percent were assistant professors, 28 percent were associate professors, and 33 percent were full professors. The majority of participants were overwhelmingly from the social sciences (52%), followed by Humanities (23%), Natural Sciences (16%), and Formal Sciences (9%). Most of the participants were from universities in the ten to twenty thousand student range (37%), which was followed by universities in the zero to five thousand range (26%). The five to ten thousand and over twenty thousand ranges were both at eighteen percent.

Question four asked participants to check all of the teaching methods they used in their classrooms. Table 1 shows the percentages of the respondents that use these approaches. For example, 91 percent of the respondents use lecture in their class, where only 27 percent use place-based learning.

Table 1
PERCENTAGE OF FACULTY USING THESE APPROACHES IN THEIR CLASSES

| Teaching methods | Faculty percent |
|---|---|
| Lecture | 91% |
| Student Presentations | 83% |
| Collaborative Learning | 85% |
| Problem-based learning | 62% |
| Project-based learning | 78% |
| Service learning | 34% |
| Place-based learning | 27% |
| Other-please explain | 18% |

Questions 5-11 asked faculty to identify how much they use experiential approaches for learning. Figure 1 shows the percentages of faculty using less than 25 percent of a given experiential approach. For example, 81 percent of the faculty surveyed used student presentations less than 25 percent of the time in their classes, whereas 50 percent of the faculty used collaborative learning less than 25 percent of the time.
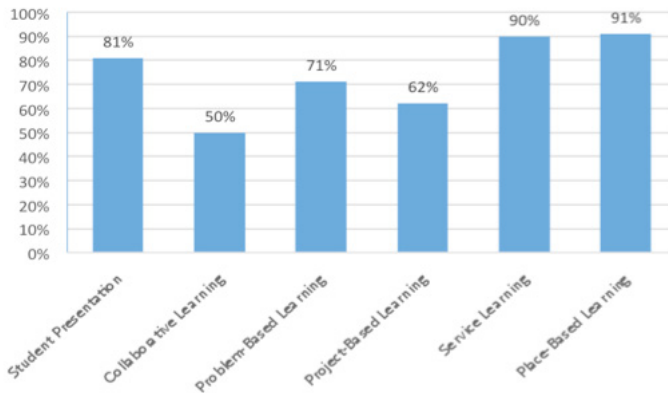
Fig. 1 - Percentages of faculty using various experiential learning methods less than 25% of time in their classes.

Question 12 asked if they provide students with out-of-class experiences. Seventy-seven percent said yes and 23 percent said no to this question. Next, they were asked to check the types of out-of-class experiences they provide their students. Fifty two percent said they use observations, 50 percent said they use field work, 40 percent said they use field trips, 39 percent use interviews, and 12 percent said they do not use any out of class experiences.

Question 14 asked what obstacles make it difficult for them to implement experiential learning. Sixty-one percent said not enough time, 28 percent said not enough money, 17 percent said assessment procedures, 13 percent said university bureaucracy, and 8 percent said departmental policies and procedures. There were several comments under this section on reasons why it is difficult to implement. The dominant ones were classroom structure, class size is too large, not enough time, difficult to cover all the curriculum, and faculty resistance.

Question 15 asked participants if they believed experiential learning enhances life skill development and 97 percent said yes. Question 16 provided participants with a list of ten life skills and asked participants which of these life skills they thought were enhanced from experiential learning. Table 2 shows the ten life skills with the faculty percentages that believe these skills are enhanced through experiential learning.

Table 2
PERCENTAGES OF FACULTY THAT BELIEVE THESE SKILLS ARE ENHANCED THROUGH
EXPERIENTIAL LEARNING

| Life skill | Faculty percent |
| --- | --- |
| Critical thinking | 92% |
| Problem solving | 91% |
| Creativity | 74% |
| Communication | 90% |
| Collaboration | 88% |
| Time management | 65% |
| Responsibility | 76% |
| Perseverance | 60% |
| Work ethic | 57% |
| Self-direction | 73% |
| None | 1% |

Question 17 asked participants how much time they placed on intentionally trying to teach these ten life skills. The percentages were highest in the less than 25 percent of the time column.

Question 18 asked why they believe experiential learning develops life skills. The highest percentage believed that the cognitive process is more complex than memorizing information. Table 3 shows the percentages of faculty that believe in the seven reasons why it helps develop life skills.

Table 3
PERCENTAGES OF FACULTY THAT BELIEVE LIFE SKILLS ARE DEVELOPED DUE TO THESE
REASONS

| Reasons why experiential learning develops life skills | Faculty percent |
| --- | --- |
| Because it requires multiple trial and error attempts. | 51% |
| Because students learn from their mistakes. | 62% |
| Because it involves a problem solving process. | 79% |
| Because the cognitive process is more complex than memorizing information. | 84% |
| Because it occurs outside the classroom. | 32% |
| Because students often work on projects in real world settings. | 68% |
| I don't believe it helps develop life skills | 2% |

## 5 Discussion

It is obvious from looking at Table 1 that lecture continues to be the dominant

method faculty use when teaching their courses, however it also shows that faculty are at least experimenting using student presentations, collaborative learning, and project based learning in some of their classes. Even though lecture may be the dominant method, instructors are integrating other methods, which is encouraging.

What is not known with this table however, is to what extent faculty understand the theories and practices behind each of these methods. For example, collaborative learning involves students working in groups with group members having equal amounts of work to do in order to complete the task (Barkley, Major & Cross, 2014). Working in groups where one student completes all the work is not collaborative learning, but this is a common misrepresentation of the technique.

Although Table 1 is encouraging because it shows that faculty were experimenting with different experiential techniques, Figure 1 is a more accurate representation on how little they were actually being used. Place-based learning and service learning are being used the least, which is probably because they require significant time to design and implement experiences for students with local, regional, and global organizations. Even though the percentages for student presentations, problem based learning, and project based learning were slightly better than place-based learning and service learning, they continue to lack implementation as well. Collaborative learning was the one technique that was being used more than the others (fifty percent of the faculty are using it less than twenty-five percent of the time) so at least this technique is gaining more popularity.

Faculty must be committed to the values and benefits of these approaches because they require time and energy to design and implement these experiences. However, what faculty might not realize is that once they put in some upfront time designing projects, activities, and experiences the learning process unfolds on its own allowing instructors to step back and act as guides to the process. When using these approaches classrooms may appear chaotic at first, but the chaos has a purpose and students need the freedom to experiment and fail in order to learn how to learn.

Even though faculty are using experiential learning sparingly in their classes, a fair number are incorporating other types of out-of-class experiences into their courses. Observations were used the most (52 percent) followed by field-work (50 percent) and field trips and interviews (40 percent each). There are however, two potential flaws with these experiences that were not accounted for in the survey.

One is that it is not known how often and for what duration faculty were using these techniques. For instance, an instructor could require students to do one brief observation and therefore they would be providing an out-of-class

experience. Secondly, these experiences may be unguided. Students may be doing an observation or partaking in a field experience, but if the instructor is not guiding the experience by informing students of its purpose and allowing them to reflect on its meaning, learning might not happen.

Several obstacles were mentioned that were preventing faculty from using experiential learning. The major one was not having enough time to implement the techniques. Others included: not enough money, having to cover required amounts of curriculum, large class sizes, classroom structure, and faculty resistance. All these obstacles however, can be surmounted if one believes in the philosophy of experiential learning. For instance, instructors can engage students in a fifty-minute lecture class by breaking them into small groups and having them discuss questions. Assignments can also include structured group work outside the classroom, and something as simple as rearranging the chairs into circles can create an atmosphere where discussion is welcomed. Faculty resistance can certainly present a problem, however professional development opportunities that expose faculty to the benefits of experiential learning might inspire them to experiment with some of these techniques. With a little creativity instructors can overcome perceived obstacles and engage students in learning.

The most interesting part of the survey revolved around the last few questions. Almost all the survey participants believe that experiential learning enhances life skill development (97%). Critical thinking and problem solving were at the top but all of them were above sixty percent except work ethic, which was at 57%. The last question asked them why they believe it enhances life skills and the highest scored answers were that the process is more complex than memorizing information and because it involves a problem solving process.

What is interesting about these answers is that the survey participants recognize the values and benefits of experiential learning, but use it very sparingly. Why is it that they believe the process enhances life skills and is extremely effective, yet continue to rely on more passive methods of learning? There continues to be a huge bifurcation between theory and practice in higher education. It appears that faculty would rather focus on providing students with information and theory as opposed to application and practice, yet employers want to hire students that are adept in life skills such as problem solving and creativity. Change is a slow process but if educators want to inspire students to become effective problem solvers, and ultimately self-directed learners, then they must use techniques that allow students to apply information and learn from making mistakes.

## Conclusion

As summarized above, previous literature on the use of experiential learning in higher education has indicated an increase in faculty use of approaches such as service learning. However, this research found that while there may be increased awareness of the diversity and value of experiential learning there remains a limited use of experiential approaches in higher education. Lectures remain the dominant approach while many academics also report using collaborative learning, however it remains unclear as to how much they use collaborative learning and specifically what they mean by this. Our suspicion is that this simply means that students are asked to give presentations on topics in small groups. While there is nothing inherently wrong with this approach there are a whole host of additional approaches that could be utilized to enrich student learning and engagement.

While barriers to experiential learning were identified (class times, classroom structure, class size is too large, not enough time, difficult to cover all the curriculum, and faculty resistance) the benefits of experiential approaches in enhancing life skill development were agreed by 97% of respondents. Given the increasing costs of higher education and that many universities are recognizing the need to ensure that teaching and learning receives as much attention as research and scholarly activity, it seems logical to anticipate increasing interest in experiential learning and demand for staff continuing professional development in this area. We also suggest that system wide changes will be needed to accelerate the use of experiential learning and those universities that are committed to high quality pedagogy will experiment with more flexible timetables, less restrictive curricula and alternative spaces for learning which encourage group work, projects and interactive approaches.

## Acknowledgements

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