Collegiate Experience: A Literature and Phenomenological Study on Experiential Learning in University Education

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Collegiate Experience:

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November 1, 2021
Abstract

This research project explored the effectiveness of experiential learning programs within college education for producing long term, deeper understandings of the subjects being taught. To analyze the effects of experiential learning on students, a literature review and synthesis of previous experiential learning studies and research was conducted. First, research was done into studies and publications that discuss educational concepts and theories regarding learning through experience, including Experiential Learning Theory itself. Next, studies of experiential learning programs and courses within academic institutions were analyzed to determine how experiential learning has been applied in the past across a variety of disciplines and how it has affected students. And lastly, studies and literature on how these programs have been applied in professional settings and how students whose educations included experiential learning opportunities perform professionally were compiled to provide a broader view of the impact experiential learning has on students. Along with the literature review, this project included phenomenological research into experiential learning at Embry-Riddle Aeronautical University, specifically within the David O’Malley College of Business’ Professional Consulting program, where students participate in an experiential learning course. Findings from both the literature review and phenomenological research were synthesized, and showed that experiential learning programs provide students with better understandings of the concepts explored and the deeper methods and theories behind the surface-level topics, which resulted in students holding onto the knowledge for longer and being able to better apply it in a wider range of scenarios, outside of those specifically explored during their education.

Keywords: experiential learning theory, student development, educational methods
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Collegiate Experience:  
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Traditional collegiate education has primarily featured an educator lecturing to their students in one-way communication. However, since the start of the twentieth century, this model of education has come under question. With the development of educational psychology and scientific experimentation on student learning, many alternative forms of education have been proposed. One such model is that of Experiential Learning Theory (ELT), developed in the 1970’s by Dr. David Kolb and Ronald Fry, in which Kolb and Fry (1974) propose that learning is best broken down into a four-step cycle where concrete experience directly feeds into observation and reflection within a student, which in turn leads to the development of abstract models, concepts, and generalizations that are then tested in varying situations, providing new experiences. This model, inspired by the work of John Dewey, Kurt Lewin, and others (Ord & Leather, 2011; Peterson & Kolb, 2017), is almost a reversal of previous educational development, as it draws from how individuals learned prior to formal education. Before state-sponsored primary education, or the formation of formal universities, humans had to explore the world around them, create conceptual models, and test these models. There was no teacher besides the world around you; engineering and invention was iterative, with ideas being built, tested, broken, and redesigned, instead of the modern method of theoretical designing using physical analysis and simulated testing. Experiential learning (ExL) returns to this iterative methodology, turning away from the lecture-driven study of the theoretical.
Experiential Learning and Educational Theory

Considerable research has been done into educational philosophy and how experiential learning fits into education systems. This work helps provide a foundational framework for collegiate ExL programs, on which to base their teaching methodologies. While traditional education focuses on the transferal of core facts and theory, ExL strives to develop all-around growth within the students, so that they grow with their education and develop longer-lasting comprehension of the subject matter. For these reasons, ExL is a distinct educational philosophy beyond simple hands-on work, though ExL programs often include considerable hands-on aspects.

As Kolb and Fry discuss, Experiential Learning Theory holds that there are four core bases of learning, two “grasping” modes: concrete experience and abstract conceptualization, as well as two “transforming” modes: reflective observation and active experimentation. These four pillars are utilized in ELT by continuously cycling between each: experiencing information, reflecting on what was observed, contemplating new concepts, testing how these new concepts apply to the world, and finally repeating to experience the results of such experimentation. Additionally, these four modes may be further refined, as presented by Thomas Morris, into “contextually rich concrete experience, critical reflective observation, contextual-specific abstract conceptualization, and pragmatic active experimentation” (Morris, 2019).

Within their 2005 paper “Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education”, Alice and David Kolb analyze preexisting experiential learning theory and the research surrounding it to present ways in which it can best be applied to higher education, as well as propose one new and one revised concept within experiential learning
theory: the learning space, the “interface between student learning styles and the institutional learning environment” (Kolb & Kolb, 2005); and a revised learning style inventory (LSI), a reworked method of determining experiential learning styles. Learning Styles have long been used to categorize students, in an effort to standardize education, though have often been criticized for being inaccurate and too rigid to be applicable to the ever-changing and growing human mind. Based on several layers of research, a comprehensive LSI is proposed with nine personal learning styles laying on a two-dimensional grid with experiencing/conceptualizing as one scale and acting/reflecting as the other. Unlike previous LSI’s used within ELT, this is not a rigid structure describing fixed traits of a person, rather a current dynamic state the person is in with respect to the topic being addressed, which changes over time as the person in question gains more and differing experiences. This research displays that while ELT has been a well-established educational model, there are always potential improvements that can be made to better the development of experiential learning programs and the impact they have on students.

Additionally, in Scott Larson’s 2014 report “Transforming Young Lives”, further potential changes to ELT are discussed. In the paper, Larson studies past literature and research into educational philosophy and the development of modern education, as well as how youths are growing and being taught today, to support his hypothesis:

“Creating deep change begins with building connections that help young people discover their strengths and find new purpose and vision for the future. This also calls for transforming organizations, schools, and systems that serve youth.” (Larson, 2014)

Education and student development, especially within so-called “troubled youths”, cannot be solely propped up on theory and lecture. Research has found that creating
interpersonal relationships (Duncan et al., 2009) and inspirational drive provide lasting change within youths. Reforming the education system entails changing more than just the core theory and subjects being taught, but must see adjustments to the mentalities of teachers and the interactions they have with students. Developing experiential learning programs that maximize personal and educational growth should provide the educational aspects described by other educational philosophers, but should also emphasize interpersonal interactions and the nurturing of personal inspiration and drive.

Part of what sets ExL apart from other education models, is its utilization of meta-cognitive learning. Meta-cognition, the awareness and knowledge of one’s thinking and learning processes, is often indirectly brought into experiential learning, but Alice and David Kolb argue in their paper “The Learning Way: Meta-Cognitive Aspects of Experiential Learning” (2009) that if proper meta-cognitive models and methods are integrated into experiential methods of teaching, students’ subject understanding and information intake can be greatly heightened. By learning about the educational methods being applied, students receive a greater understanding of what it is they are learning and why, which in the case of experiential learning may lead to a better recognition of the deeper methods of problem solving being used and how these can be applied to future issues.

**Experiential Education Within Schools**

While experiential learning has been an evolving method of education, its core principles have already been applied in schools with much success. Additionally, the model itself has grown and changed, reminiscent of the ELT four-step process, as it has been tested in education
and results have been measured. Research into the dynamics between ELT and schooling has been extensive and explored this relationship within many different disciplines.

In “‘Low-Impact Communities’ and Their Value to Experiential Education for Sustainability in Higher Education” by Robert Cook and Roger Cutting, higher education students were provided an opportunity to study sustainability within “alternative” communities, groups of people following low environmental impact lifestyles, providing the students with experiential knowledge of sustainable development. The students’ perspectives on this experiential learning opportunity were then analyzed to provide a phenomenological study on the impact of such a program. Generally, the students agreed the opportunity was beneficial to them and would direct their future personal actions and academic work towards sustainability. The timespan of the program was found to be one of the most important factors on the overall impact the experience had on students, as those who returned for additional visits or had extended stays with the communities tended to display greater personal changes and more profound thoughts on sustainability. Overall, this experiential learning program benefited both the students as well as the communities they worked with, displaying how programs such as this do not have to be purely academic, instead providing benefits for both the students and other organizations. This study provides supportive evidence of experiential learning being an exceptionally beneficial form of education that connects with students on a more personal level than traditional lectures.

In “How do we Teach Science the Dewey Way” (Karaşahinoğlu, 2020), Karaşahinoğlu argues that education, especially within the sciences, is best done through experiential learning. Too often education focuses on the theoretical and technical aspects of a field, without allowing the students to grasp how the deeper methods can be applied to any other part of their life.
Teachers should adjust their perspective of teaching away from simply providing information to the students and towards a layered approach where hands-on experience, problem solving, and self-reflection are utilized to connect the technical theory to relatable applications. Students should study the process of problem solving, rather than how the problem is solved; meaning, they should be taught what methods can be used, why the methods work, and the root attributes of the methods that can be applied universally, rather than simply being taught one way to solve a specific problem. Experiential learning allows students to better understand the methods of research and science, so that they may apply them throughout all aspects of their life, rather than seeing them as rigid, step-by-step instructions that only apply to a single problem.

Moving from the sciences to the arts, in “Outdoor and Experiential Learning: An Holistic and Creative Approach to Programme Design” (Martin et al., 2004), the authors study experiential learning within dramaturgical education, the study of theatrical production, and present guidelines for future experiential learning programs to best grow the students’ knowledge and abilities using “games”. Dramaturgical education through games, or acted simulations, serve as experiential methods of learning for theater students, and develop multiple aspects of the students, such as social, emotional, and creative knowledge as well as their technical abilities while acting. These experiential learning opportunities primarily aimed to push the students out of their comfort zone, which described research (Martin et al., 2017) has shown to lead to long-lasting, personal development. Each game featured the introduction of students to a new, special environment, in which they had to act and participate, both physically and intellectually, to compete against other students. The general concepts behind the interactive games, such as blindly introducing students to unknown challenges and situations, as well as a safe environment where they compete, but also where failure does not hold much weight on their lives, may be
applied to a wide variety of fields outside of drama, and may aid in similar personal growth and learning.

It was found in the 2017 paper “Developing Students’ Cultural Intelligence Through an Experiential Learning Activity: A Cross-Cultural Consumer Behavior Interview”, by Lada Helen Kurpis and James Hunter, that cultural intelligence experiential learning programs build business students’ intercultural skills. This was supported through an experiment testing a specific educational model based on contact theory, experiential learning theory, and the cultural intelligence model, where students of different educational and language backgrounds interviewed each other. During self-reflection, students described the experience as beneficial to their education and reported an increase of “cultural knowledge, motivation, and confidence in [their] ability to communicate with people from other cultures” (Kurpis & Hunter, 2017). Their change in cultural intelligence was then analyzed and provided evidence of increased intercultural skills resulting from this experience. These findings provide further evidence of the effectiveness of experiential learning programs within higher education situations, as well as exemplify low-cost, easy to set up experiential learning methods that can be used as foundational models for future programs. Additionally, findings from other studies (Ng et al., 2009) have reaffirmed these conclusions.

Continuing this theme, in “Global Virtual Teams’ Education: Experiential Learning in the Classroom” (Magnier-Watanabe et al., 2017), the authors study the effectiveness of experiential learning education within multicultural team projects to provide insight into how such programs benefit students through a text-mining analysis on students’ reflective writing. In the study, student teams were formed between two schools from different countries, Japan and France,
which were then required to work together on projects. It was found that students learned to develop trust among their team members, become more understanding of cultural and experiential differences, and adapt to team communication and development through virtual means. Trust had to be developed over time, and directly influenced the team’s communication and effectiveness; increasing mutual trust directly led to better communication and evenly shared knowledge. Then, due to differences in students’ previous experiences, specifically cultural and educational, the teams generally struggled initially. Students often assumed others had similar prior knowledge and cultural norms, resulting in hurdles to overcome, as shown when students reported being “initially distracted” by the differences. However, once the students understood and adapted to the varying experience levels of their team members, it was found that the students felt more confident in their team’s results, as utilizing these different perspectives led to alternative and more well-rounded solutions. Lastly, it was found that students developed better communication and team management skills, as they learned to talk with peers, develop their leadership and management structures, and form trusting relationships through virtual means. This research provided valuable insight into the benefits of multicultural experiential learning programs, as well as some of the potential hurdles these experiences might force students to overcome. While students may struggle with these hurdles, this research shows that they can be overcome and result in greater growth within the students.

*University Professional Development Centers*

Many universities have begun to adopt professional development centers that often focus on experiential learning programs. Several of these were analyzed to establish common themes and compare the functions of each, in order to provide current examples of ExL practices in use.
and provide guidance for schools looking to start ExL programs. The studied programs were: University of Washington’s Consulting and Business Development Center, Seattle University’s Project Center, Texas A&M’s Center for Business Excellence, Advance Iowa, University of Pittsburgh’s Center for Sustainable Business, Madonna University’s Center for Business Development, and Carnegie Mellon University’s Center for Business Engagement. Of these, it was found only four had a heavy focus on student development, while the others focused primarily on business development. Carnegie, Madonna, Seattle, and Washington each focused on their students by providing educational programs. Carnegie was the only program to provide experiential learning opportunities in a range of disciplines, whereas Madonna and Washington only provided opportunities for business students, while Seattle only provided engineering programs. These four each connected students with professional organizations and companies, to have the students tackle real-world problems in professional settings. These partnerships were done through sponsorships with local companies, where often the business would pay the school to let them bring in the student teams to provide them services. These programs proved beneficial for all involved, as the businesses received third-party consulting advice and services, students received in-industry experience while having the safety net of an educational class, and the school received financial compensation in the form of tuition and donations, as well as more knowledgeable and well-rounded students, which ends up reflecting well on the school.

*Emby-Riddle’s Professional Consulting Program*

In line with the aforementioned university programs, Embry-Riddle Aeronautical University (ERAU) has developed its own experiential learning program, in the form of the Professional Consulting Program within the College of Business. Within this program, student-
led teams are formed from several students from ERAU’s Daytona campus as well as ERAU’s Prescott campus. These multi-campus teams are then connected to a partnering company to provide professional consulting services for. The sponsor companies come from a variety of industries, providing students who largely focus on aviation with broader insight into how their education applies to other fields. Students involved in the program consistently find the experience to be greatly beneficial, as it reinforces previously learned concepts, forces the students to explore these concepts to be able to apply them in different situations, and exposes the students to professional business practices and problem solving in a scenario where failure does not result in job loss and financial risk. These projects challenge students to develop their leadership and group management skills, and practice their problem recognition and solving skills, while exposing them to international business practices.

Several students within the Professional Consulting program provided feedback on the program midway through the fall 2021 semester. One student explained that they had taken several traditional-style courses, in which the professor lectured and used slideshows to instruct. Then, at the end of the class they were left with weak recollections of the professors describing concepts and vocabulary to the students, and the subject would soon be forgotten after the final exam. Meanwhile, the same student found that by going through real-world problems that involve these business concepts, they were able to solidify their understanding of the subjects and apply their knowledge back in their other courses, stating the ExL program was “definitely very beneficial” and that “the skills we’ve learned will be helpful in other fields and other projects”. Additionally, another student focused on the community and environment of the program, explaining that the class provides a safe space for them to learn and grow while feeling safe and supported. Overall, common themes found among student feedback included: learning
to handle failure and not fear it as is common in traditional classes; developing greater, longer-lasting understandings of theoretical knowledge often taught in previous courses; gaining self-confidence; and general development of professional and life skills, which are largely overlooked in traditional education.

Additional supporting research into these personal developments within students has been investigated and reaffirmed by Nogueiras et al. (2017).

**Experiential Education in the Professional Workspace**

To better understand the effects of experiential learning on students’ lives, it is important to analyze how this education services them in their future careers. Research has been conducted into ExL and its relationship with the “working world”; how students entering the working world must expect to be continually learning from their experience to be successful.

In Diamanto Politis and Jonas Gabrielsson’s 2009 study “Entrepreneurs' Attitudes Towards Failure: An Experiential Learning Approach”, the authors analyzed entrepreneurs and the experiential factors that affected their response to business failure. Primarily, the authors looked to determine how prior start-up experience, experience handling critical setbacks during start-up, business closure experience, and the underlying reasons for these previous business closures affected the entrepreneur’s personal handling of future struggles and failure. By analyzing 231 Swedish entrepreneurs, it was found that having prior start-up experience was positively correlated to having a more positive response to future failure. Additionally, it was found that experiencing business closures was also related to more positive attitudes toward failure. Within these business closures, the researchers determined that the form in which the business failed had an impact on the entrepreneur’s future handling of failure; business
performance-related causes led to the entrepreneur developing better failure responses, whereas closures due to personal drivers, such as private reasons or personal alternative career changes, did not have an impact on the entrepreneur’s attitude towards future failure. Lastly, the study found that experiencing major setbacks during the start-up process had negligible effects on the entrepreneurs’ attitudes toward failure. This research provides strong evidence for the effectiveness of experiential learning within the business world. Entrepreneurs experience failure after failure, and each of these experiences provide new insight into the process of developing a successful company and teach the entrepreneur to not give up when future struggles and failure occurs. University ExL programs aid in this, as was noted by the ERAU students, due to the educational programs allowing students to fail while not resulting in total financial collapse or job loss. By developing attitudes of perseverance and self-confidence, students will be better equipped to handle failures in the future. Further research into experiential learning within entrepreneurial development was done by Luke Pittaway and Jason Cope (2007).

Following this, in “Learning from Experience and Learning from Others: How Congenital and Interorganizational Learning Substitute for Experiential Learning in Young Firm Internationalization” by Johan Bruneel, Helena Yli-Renko, and Bart Clarysse, young firms are analyzed to see how crucial experiential knowledge and learning is for internationalizing. Start-ups face an interesting challenge, in that experiential learning requires time, which is not something these companies have yet. In this study, the researchers analyzed how young companies looking to internationalize relied on three different avenues of attaining knowledge to successfully integrate into foreign markets: firm-level experiential learning, the growing of knowledge through experience; interorganizational learning, integrating knowledge received from outside organizations; and congenital learning, the gaining of knowledge from company
founders and early contributors. The study found that firm-level experiential learning is a highly beneficial asset during internationalization, however, is not necessary, as young start-ups can rely on congenital and interorganizational learning instead. Interorganizational learning is beneficial both for experienced and new companies, and becomes increasingly valuable the less experienced a company is. Meanwhile, congenital learning is useful for new companies, those lacking experiential knowledge, but is quickly overshadowed by experiential learning.

Experiential learning programs in college education can be dually beneficial to a student and their interactions with companies looking to internationalize, as the student may gain experience that may be brought to the company as congenital knowledge, as well as provide the student with prior exposure to experiential learning so they more efficiently intake and apply the knowledge gained while working within the company.
Conclusion

While experiential learning is not a new concept, it has remained largely outside of standard education practices. However, as research into the topic becomes more and more abundant, the education model is becoming more widely adopted and the benefits of ExL programs are becoming more evident. The nuances of the philosophical Experiential Learning Theory are likely to continue evolving as our understanding of educational psychology grows, but the core principles are already being implemented in university education across a range of disciplines. Research has found ExL education programs aid students in developing deeper connections with the subjects being studied and the people with which they are working, which in turn develops their technical knowledge, professional skills, and social intelligence. By actively applying their knowledge to new, real-world problems, students learn how their theoretical knowledge can be applied in varying scenarios. Additionally, these programs provide students with safe spaces to fail, where they can learn to face and overcome challenges, setbacks, and failure with minimal personal risk.

Recommendation

When developing experiential learning programs, research has shown that universities should focus on developing the class environment, more so than setting rigid course learning goals. This includes providing instructors that create a respectful and supportive social environment, focus on the deeper problem recognition and solving skills, and help students relate their theoretical knowledge to the real-world applications. Then, on the curriculum side, the program should look to provide students with exposure to projects within companies, especially ones that are not locally based, so that students can develop their professionalism skills and
cultural intelligence. These projects should be challenging — pushing the students’ boundaries so that they can develop an understanding of the stresses of failure, as well as begin developing their perseverance for overcoming these struggles. Experiential learning programs that focus on these concepts will provide students with deeper, longer lasting understandings of the subjects being taught.
References


