The Effectiveness of Teaching Philosophy to All Ages Using Experiential Learning, Especially Through Games¹

Noah Levin

Washington State University

ABSTRACT

In this paper I describe the basic methodologies of experiential learning and explicate some of the underlying theory and research that support using it. I also describe some successful experiential lessons and compare them to more traditional lesson approaches on the same topic to clarify why experiential lessons can be more effective, engaging, and fun without losing any meaningful content – including using games to teach difficult philosophical concepts. Some specific topics I will discuss will be Rawls' "Veil of Ignorance", the "Trolley Problem", and, most importantly, the essentials of critical and deductive analysis. I will include my own experiences teaching in this manner to primary and secondary school students in Singapore with LogicMills Learning Centre, which includes data on the effectiveness of experiential learning and the importance of teaching critical thinking to younger students. As a final note, I will describe the process of creating experiential lessons in philosophy and recommend specific ways of easily implementing this methodology.

Introduction

Many things I will say in this paper most readers will take for granted. Indeed, for anyone who has taught any subject at any level, there is nothing new to my claim that "experiential learning" in all of its wondrous forms is an excellent pedagogical tool. If you think back to the most successful lessons you have been involved in – either as a student or as an educator – most of them will likely have assumed an experiential methodology. Despite the widespread knowledge of the excellence of experiential learning, few educators end up using it at any level of education. But who can blame them? Designing and implementing an experiential lesson can be very time-consuming and taxing – but it doesn't have to be. The more familiar one becomes with this methodology, the easier it becomes to use it and the ways it can be brought into a lesson

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can be subtle but still highly effective. I hope that this work will serve as a "call to arms" for educators to develop more experience-based lessons.

I will do my best to establish through arguments, experimental data, and anecdotes that experiential learning is a highly effective tool in teaching. I will focus specifically on teaching philosophical subjects (especially critical thinking and ethics) and will give examples of experiential activities ranging from simple surveys to complex games. I will also illustrate how experiential learning can easily be brought into many lessons and give tips on how to develop an experiential lesson.

What is "experiential learning"?

Historically, it could essentially be thought of as synonymous with the idea of "learning by doing". This entails a certain level of interaction and subsequent internalization of a topic and the processes associated with it. John Dewey, Maria Montessori, and, most recently, David A. Kolb are notable proponents of some form of experiential learning. I take the term to mean something really quite broad – the act of learning through an experience that arouses the intended lesson within the learner.² The simple lesson of why it is bad to punch another person in the stomach is a straightforward and obvious experiential lesson, but it is harder to see how experiential learning can be an effective method for teaching the majority of subjects of traditional schooling, the learning of "facts" and the ability to apply rules and theories to new situations. A history teacher can lecture on the details of battles in a war or the students could play a very good simulation of the war to learn the same thing. I leave it to the reader to ponder

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² For a good summary and evaluation of experiential learning, especially that espoused by Kolb, I recommend "David A. Kolb on Experiential Learning" by Mark K. Smith, available at http://www.infed.org/biblio/b-explrn.htm.

over which one would be more effective. However, a lecture, if engaging enough, actually *is* an experiential lesson because the students are drawn into the subject matter.

I do not have the space to fully recount and critique the various approaches to experiential learning that have been presented in the history of education, but it is still useful to start with a basic understanding of how experiential learning works. Experiential learning can generally be described as having 4 aspects: experience, reflection, generalization, and application. An experiential lesson is usually done in that order, but it does not have to be, and the 4 aspects do not need to be distinct – indeed, they hardly ever are.

The effectiveness of "experiential learning"

I spent a year working for LogicMills Learning Centre, PLC in Singapore. The goal of LogicMills is simple: help Singaporeans and (some day) the rest of the world think better. The primary method of achieving this is by teaching critical thinking skills to 8- to 15-year-olds using experiential learning. The experiential learning methodology preferred by LogicMills, to my utter joy, is games. The great thing about games is that they all contain many learning points within them waiting to be actualized and they can be very effective in the classroom. I am aware of a few studies (which are currently still confidential) that illustrate that teaching students philosophy, especially critical thinking, improves performance on standardized tests. Teaching critical thinking through experiential learning in the manner LogicMills teaches it has been the most effective method. For numbers I can divulge, giving students critical thinking lessons using experiential learning twice a week for one hour each session for 4 months resulted in an average of approximately an 18% increase in performance on standardized tests *across the board* (almost every student gained increases in almost every subject). Some students saw gains of up to 40%. I can say from first hand experience that it is very effective. As a bonus, it is also very fun.

It is not just these students in their prime that benefit from learning to think critically through experiential learning. I have taught children as young as 3 such complex concepts as the distinctions between types of opposites, the real-world meaning of probabilities, and the valuation of goods across individuals. I have also taught, or reminded, business professionals such simple lessons like: balancing time and money needs to be done delicately and you *can* commensurate them if you look at them correctly, creating a plan ahead of time is essential to success in some situations, and dividing labor correctly is more important than *merely* dividing it. All of these lessons were taught using games and they were all highly successful.

Perhaps the largest advantage of experiential learning is that it can be effective for many different types of learners. Categorize learners however you wish (tactile, visual, auditory, etc.) and a properly designed experiential lesson will contain aspects that resonate with all of them. For a starter example, consider ways in which we might teach Rawls' "Veil of Ignorance" thought experiment. We can teach it in the traditional way by reading the text and then discussing it – *or* we can take students through the thought experiment as Rawls describes it. Games wonderfully combine many things into a fun package that can be *immensely* effective. To illustrate this, I will use two common games: Sudoku and chess.

Sudoku is a game (or puzzle) in which there are certain simple rules governing how numbers are filled into a grid. At LogicMills we used *Shady Puzzles* (one of the versions of a nonogram) to teach with instead of Sudoku because they are simpler. The purpose of using the puzzles to teach is the same because solving them requires the same steps. Going through and solving a Sudoku puzzle or nonogram exemplifies how playing a game can constitute an experiential lesson and very effectively teach a student critical thinking skills by implementing the deductive processes of problem solving. To solve the puzzles, you must first ascertain what it

is that you know, use this certainty to make the first steps, move step-by-step, resolve contradictions, and ultimately arrive at a solution with confidence. This is, in its simplest form, the manner in which we solve many problems deductively.

Sudoku has a single solution to the puzzle (usually, but multiple solution puzzles are possible), but chess has many ways in which one can succeed. There are many factors that must be accounted for and looking at the problem in different ways is essential to playing a decent game of chess. At its heart, though, the deductive process is the same that is employed when solving a Sudoku puzzle, there are just many more possibilities one has to analyze. Chess is thus a very good tool for instilling complex problem solving skills and the appreciation of a complex deductive analysis in students.

Teaching and designing experiential learning lessons

In a period of around 3 months my understanding of teaching was completely shattered and rebuilt in a much more solid and grander fashion than I thought imaginable. This happened when I was thrust into the classroom teaching and learning about experiential lessons that approached learning points with methodologies I had only dreamed might be effective. Teach serious philosophy lessons and thinking skills using one of my favorite games that I have played thousands of times? Sounds like a dream, too bad it won't work. But, of course, it did and it was amazing. My main regret in teaching is that I didn't have the chutzpah to try teaching approaches that I thought might be effective earlier than I did.

Very shortly after I learned these methodologies I had to instruct others on how to teach these lessons themselves. They say you never truly know a subject until you have to teach it, but this is only part of the truth. You only truly know a subject when you have to teach another person to teach it. This is how my teaching world was turned upside-down: I had to gain the

intimate knowledge of teaching using experiential lessons required to teach other experienced teachers how to use them – and then design them on their own.

Understanding how to design an experiential lesson is the first major step toward understanding how to teach one. I always start with one simple question, "What do I want the students to come away with from this lesson at the end of the day?" The next step is the hardest part: figuring out what lesson will be the most effective at achieving this learning point.

I want all of my students at the beginning of a semester to appreciate what philosophy, and especially ethics, is about. Specifically, I want them to appreciate the difficulty in resolving complex problems and the subtle and serious implications of certain factors to a given moral dilemma. A big part of this is recognizing and sorting through the relevant aspects of a situation. I think appreciating the differences and similarities between doing and allowing and the difficult problem of moral luck are essential for getting students into the correct mindset to openly approach philosophically complex issues. To achieve these learning points we discussed 16 different iterations of the "Trolley Problem". At the beginning, the students were pondering some difficult questions they had not delved into before; in the middle, they were very confused; and at the end they had a richer and more solid appreciation of where they stood on the issues presented, whether or not these were the same views they began with.

I could have given a 15-minute lecture on the differences between doing and allowing and the odd relationship that we see between luck and moral obligation. But the students would not have gotten much – if anything – out of this. Students come to the understanding of the issues that I want them to appreciate on their own through thinking about and discussing the Trolley Problem. I do not need to tell them that there's a difference between pushing someone over a bridge to stop a runaway trolley as opposed to switching the track that it's on to spare

some lives and cause the death of others – *and* that even if there is a difference, there might not be a moral difference, but even if there is a moral difference, it might not be significant. And this kind of knowledge sticks with them, as well as the skills that allowed them to achieve this understanding on their own.

How to easily incorporate experiential aspects into a university course

Two very easy and highly effective ways are popular culture media (movies, comics, etc.) and surveys. The goal of experiential learning is to successfully draw the student into the lesson and give them some form of experience to cement the learning points. Just having them realize they have already thought about a topic (like skepticism in *The Matrix*) or relating it to something they are already familiar with (like discussing fairness in the context of professional sports) is sometimes all that needs to be done.

Before each class I ask my students between 5 and 10 survey questions to get their views on topics that are relevant to the class. I ask such simple questions as, "Might you ever opt for assisted suicide?" to more complex ones like, "What do you think makes a person a person?" The surveys are always multiple choice and I share the statistics of the responses in class. Modern technology has made these very easy to administer in large classes, which means they are a very simple tool to use. I wanted to use these surveys to illustrate many things to the students, especially how their views change and evolve the more they learn and reflect, but also to serve as a foundation for understanding where the majority of the class stands on interesting issues. I thought they would be a useful tool and I have been surprised at how effective my surveys have actually been in engaging students and encouraging participation in class. I know that these surveys are partially to thank for having a lot of participation and good discussions in a class of 90 students. I do not think I have had less than 10 students participate during a single

class (usually 15-20 speak up) and at least 60 of the students have said something at some point in each of my 3 classes (of 100 students each). Giving them the survey makes them feel more connected to what it is we're discussing in the class and provides a point of consideration for how they compare to the thoughts of their classmates. Surveys are simple, interesting, quick, and effective at drawing students in to "experience" the class.

Conclusion

Be creative and *really* push yourself to develop new and innovative lessons that will teach and inspire students. I am very glad that my current approaches have been successful and I know that I have converted at least 8 students over to a minor or major in philosophy already this semester. A lot of them have felt inspired to look at the world in new ways and think more deeply about issues they would have overlooked before. At the end of the day, this is what I am hoping for in any philosophy class I teach: that my students think more deeply about the subjects we are studying and approach them with new knowledge and skills. I was fortunate enough to spend a year studying experiential learning and it has become much easier for me to design lessons and teach using it. I know that most university instructors have the abilities necessary to implement this style of learning as well but have not done it for any number of good reasons. But we should all try to make use of experiential learning more, and it becomes easier as time goes on – you just need to start using it. After you get your first taste you'll be addicted to it and never look back, especially once you see the results.