



Achieving Higher Learning Objectives in Bloom's taxonomy—An Exploration of Experiential Learning in a Chinese Educational Context

Jingying Wen^(✉)

Vanke Meisha Academy, Shenzhen 518085, China
wenjingying@stu.vma.edu.cn

Abstract. Considering the phenomenon of “good-exam takers” among Chinese students, this paper addresses the negative consequences caused by this phenomenon and suggests potential alternative pedagogies for the teacher to implement in class. The report offers insights into the principal teaching methodology that is all the rage in the west through a critical lens. In the following sections, I will first describe how the Western experiential learning model is based on cognitive and constructivist theories of people learning. Subsequently, equipped with a skeptical lens of behaviorist theories, I will question to what extent experiential learning outcomes could be measured and justified with other alternatives, such as flipped classrooms or seminars, to address the educational aims of encouraging students to develop higher skills on Bloom's taxonomy. In my final section, I will discuss why it is crucial not to adapt the experiential model without due diligence and understanding blindly and how to use such practice best to achieve the aims set initially out when addressing the problems of local Chinese school education. Overall, this paper is inferential for Chinese teachers to think about types of pedagogies that will be helpful to students.

Keywords: Constructivism · Cognitivism · Experiential Learning

1 Introduction

Across China, “high score imbeciles” has become an endemic where employers complain about graduates' poor problem-solving ability despite candidates' high academic scores and achievements. The root of the problem lies in the country's predominantly behaviorism-based, top-down “chalk and talk” teaching pedagogy in local schools. Focusing on passive learning and terminal exams focusing on skills situated in the lower skills, Chinese schools produce exam-savvy students through behaviorism who are mainly adept at “rote learning.” This goes against the more significant aims of education [1]. With students rarely given opportunities to engage in active learning, which places priority on the top half of skills of Bloom's Taxonomy, namely, analyzing, evaluating, and creating [2], the Chinese government has increasingly turned to newer

Western models of teaching pedagogies, mainly experiential learning. Defined as an active learning process where students learn through action and reflection, experiential learning encompasses various activities from hands-on experiments, field trips, research, role play, case studies, and even problem-solving through gamification. This work will discuss the advantages and disadvantages of Experiential Learning and the alternatives of EL in the application.

1.1 Theoretical Analysis

Despite the different combinations possible within experiential learning when it comes to application in the classroom, it lies on a set of shared assumptions about how students learn better through active participation. These are founded upon cognitive and constructive theories, which posit that learning is a dynamic process. Constructivism suggests learners construct knowledge rather than absorb it passively, and as they experience the world and reflect upon such experiences, they build new ideas based on self-discovery [3]. Cognitivism, on the other hand, focuses on how a learner acquires new knowledge and integrates them into preexisting schemas through active internalization. Since active learning in reflection and the construction of experiences are encouraged, experiential learning combines both theories in its teaching pedagogy to ensure students learn proactively through a range of carefully structured activities that target all skills on the Bloom Taxonomy. While many educators are advocates of this approach, behaviorist skepticism regarding how to gauge the effectiveness of experiential learning calls to doubt the seemingly overwhelming advantages of the pedagogy.

1.2 Constructivism

Experiential learning encompasses real experience, insightful observation, abstract conceptual action, and active experimentation when it first came up in the educational field in 1984 [4]. The EL commences with classroom learning and then leads to real-life scenarios in which students can implement knowledge to practice. The practice of experiential learning is grounded in particular constructivist assumptions about learners being active participant that reconstructs memories based on “past experiences” and “cue in the present environment” [5]. Constructivism and functional construction add to their existing schemas, learning theory which affirms that knowledge is best gained through action, reflection, and construction. Knowledge must be built. However, this principle states that it is not enough for a student to absorb knowledge merely; they must participate in constructing it. Students take what they already know and form a foundation to build. Importantly, understanding requires action. Students learn by engaging in the learning process, which requires learners to gather information, sort it, discuss it, and do something with it to understand. Examples of active learning include project-based learning or conducting experiments. Learning requires interaction with others. Through social experiences in the form of discussions, sharing of ideas, reflection, and other collaboration strategies, learners derive understanding through others' points of view. Moreover, learning must be personalized. This is because every student has a personal perspective influenced by distinct experiences and knowledge; learning is an individual process. Finally, learning transpires in mind. Ultimately, the learner controls his or her

learning, which may or may not reflect reality. The curriculum is centered on big-picture concepts. Learning takes place with a whole-to-part approach. For instance, when teachers want to demonstrate new knowledge about the irrigation system, it will be helpful when they sincerely lead students somewhere with an irrigation system. Through the experience of learning how to apply knowledge through actual practice, viewing, and reflecting, this pedagogy could link to the higher levels within Bloom's taxonomy model. It enables students to solve problems and create solutions.

1.3 Cognitivism

Nonetheless, experiential learning is based on constructivism, originating from social constructivism within cognitivism. Knowledge is built upon through dynamic critical reflection except "things that far exceed the limits of" learners' "actual and potential immediate experience" [6]. Vygotsky designated the zone of proximal development as the distance between a child's "actual developmental level as determined by independent problem solving" and the higher level of "potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers" [3]. Through experiential learning, students would first determine the preexisting knowledge schema. Then they carefully construct it through the zone of proximal development [3]. For instance, the way of scaffolding things through active participation. To be more specific, students interact with peers and teachers to grow. This corresponds to the zone of proximal development, and "all higher mental functions are internalized social relationships" [3]. As a result, students can internalize the new knowledge and add it to their brain storage. These also contribute to the learner's progress because activities and experiential learning usually boost motivation as students find it relatable [7]. Considering the aforementioned points, cognitivism and constructivism through the zone of proximal development, active thinking, restructuring process, and problem-solving skills are embedded inside experiential learning. Spiritual learning benefits from both psychological theories.

1.4 Behaviorism

Assessing experiential learning by alternative theories is skeptical. Although behaviorism is already in China, it is not really generating high-level thinking skills. Under the Chinese gaokao entrance exam system, students are engaged in testing results. From the behaviorists' perspectives, they believe in the "evidence of" development in mind, that is, the grade or rate of correction as a representation of "understanding" about the absorbed knowledge [1]. Correspondingly, they might ask in what way can educators design tests that can investigate higher-level skills such as problem-solving and synthesis? While there are flexible forms, such as projects or presentations, grading people based on their soft skills is still complicated.

2 Skepticism About EL

Experiential learning is extensive in the western educational field educators use [8]. Although the practice is common in Western countries, it has not been fully implemented in China. When evaluating experiential learning through the lens of cognitivism and

constructivism, this approach has demonstrated tremendous effectiveness in fostering higher-level skills in students. From the perspective of behaviorism, this approach has been criticized for its testing criteria. Taking the aforementioned lens to new insights, the difficulty in implementing experiential learning may be traced to a lack of knowledge among educators about the requirements for testing the effectiveness of experiential learning, as well as improvements or nuance innovations within the practice. This is the right time to rethink the energy and possibilities of implementing EL pedagogy. And, since so many future generations need our help, it is never too late to make a profound study in the field of education.

Experiential learning faced practical problems when entering the classroom in China's settings. The Chinese government tried to promote higher thinking skills such as "life skills, practical abilities," "creativity," "interaction," and "cooperation" in elective curriculums in school settings in 2015 [9]. They aim to promote higher-order thinking by implementing elective courses within experiential learning. This reform of the curriculum, however, was imperfect. As a result, some teachers and students still lack seriousness in implementing experiential activities in schools under the heavy burden of Gaokao and exam-oriented education. Gaining insight from the Chinese government's curriculum reform in 2015, where students refuse to focus on elective courses that do not affect their college admissions despite the latter's focus on lifelong learning skills, we can understand that future educational reforms in China should be based on students' real educational needs of lifelong learning when considering teaching pedagogy and an appropriate assessment system that does not only encompass Gaokao. While China's 2015 education reforms contain features of Western learning models, including experiential learning, a considerable challenge for educators in implementing experiential learning pedagogy is that teachers still need to care about the exam-centric paradigm; it is difficult for schools to implement experiential pedagogy, as it is much more time-consuming and less efficient to teach such an extensive syllabus of the high-stakes Gaokao examination.

3 Innovation

The examination of students' learning progress should be assessed comprehensively. People cannot use "holistic scores to excuse us from developing rigorous standards and thoughtful rules of evidence that will offer candid pictures of what students are learning" [10]. Teachers in school believe that Chinese students "must reach high scores" but "low inability," and this phenomenon is due to the "exam-oriented education" that "has deeply harmed the students." As students are immersed in an exam-oriented environment, they find it difficult to fully engage and adapt to experiential learning because they are primarily concerned with the efficiency of their learning progress. Therefore, the EL should be implemented in line with the country's comprehensive testing education policy, the Gaokao entrance examination. Given the difficulty of engaging teachers and students in an active learning mode of EL, we should accept and address how local test-oriented testing policies constrain student adaptation and teacher implementation of EL. Therefore, to truly bring revolutionary improvements to Chinese education, the assessment policy should encompass more comprehensive testing modes to support hybrid methods of teaching pedagogy that better suit Chinese students' traits.

Based on my proposed hybrid, two alternative pedagogies can be flexibly applied in the classroom. One is flipped classroom pedagogy, which offers individual learning. Flipped classroom refers to pedagogy that teachers won't be central in the school, and "students will have more opportunities to interact with the teacher and peers as well as to practice and apply knowledge [11]. By implementing the flipped classroom in the mentioned mixed policy context, students can be promoted to use higher-order thinking throughout the class. Another is the seminar. Seminar refers to the learning mode that focuses on "argumentation, justification and reasoning" and "engage with their disciplinary concepts at a higher cognitive and discursive level". Seminar is a pedagogy that triggers students' higher-order thinking. Within seminars, students are to practice the skills of argumentation, justification, and reasoning, are required to make sense of the content and their own experiences, and engage with their disciplinary concepts at a higher cognitive and discursive level. Researchers said that seminars are "to support higher-order thinking". Both pedagogy and pedagogy can be alternatives to experiential learning. Yet, teachers in practice should consider using a combination of pedagogy and pedagogy that is appropriate to their syllabus and student characteristics. With every method having its unique advantages and each honing different learning skills, teachers can combine lectures, seminars, flipped classrooms, and experiential learning activities to fit the needs of their own learners best.

4 Conclusion

In recent years, many Western educational models have been implemented in Asian classrooms. By creating a blended education policy, teachers and students can experiment with different pedagogy at the school that might promote higher-thinking skills in bloom's taxonomy. Although this research mentioned hybrid policy, it does not mention its guidelines. Detailed guidelines on policy and details of the blended pedagogy are necessary for future teachers to follow. And educators can delve into policymaking to ensure that students learn tricks and tips for answering test questions and gain experience with higher-level thinking skills.

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