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Field Trips and the Experiential Learning Cycle

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Abstract

Drawing on results from a recent national study, we draw attention to the importance of the experiential learning cycle for enhancing meaningful outcomes of interpretive and educational experiences. The experiential learning cycle involves participating in a concrete experience, reflecting on that experience, drawing out lessons learned and principles from that reflection, and putting that knowledge to work in a new situation. Recent studies reveal that attention to completing all four stages of the experiential learning cycle can enhance positive outcomes for participants in educational and interpretive experiences. We discuss what this might look like in practice for interpreter and educators interacting with visiting groups.

Keywords

Education, Experiential learning cycle, Field trips, Interpretation, School groups, Teachers

When many of us hear the phrase "experiential learning," images of various hands-on activities likely flash through our minds. We might think that *experiential learning* is roughly equivalent to *learning by doing* or, alternatively, to having an authentic experience in an immersive and relevant setting. According to academics and theorists, however, experiential learning typically has a more specific definition—one that involves direct experience, focused reflection on that experience, and application of newly developed learning to new situations. Perhaps the most well-known framework for how this type of learning takes place is Kolb's (2015) experiential learning cycle (Figure 1). Within the cycle, learning can begin at any stage. However, the sequence often begins with a concrete experience, followed by meaningful reflection, abstract conceptualization, and the application of new knowledge.

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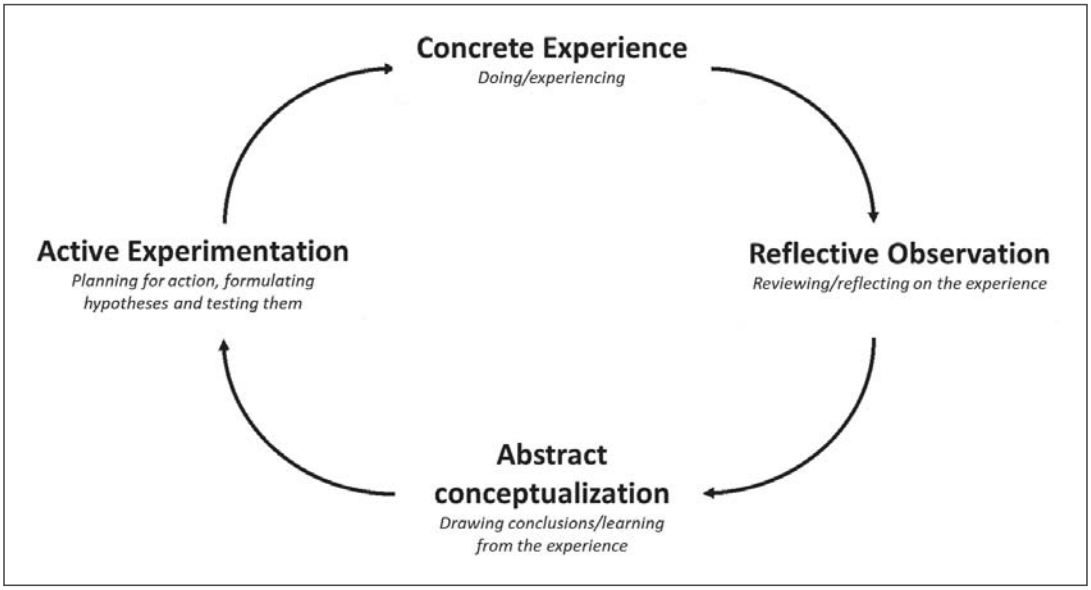

Figure 1. Kolb's (2015) experiential learning cycle.

In the context of school field trips to a natural or cultural site, we might commonly think of the field trip itself as the "concrete experience," with reflective observation and all other parts of the experiential learning cycle happening afterward. Alternatively, the field trip could occur near the end of the cycle, as students apply what they have learned in their classes on the field trip itself. As a field trip program provider, on-site interpreters and educators have little control over the other elements of the experiential learning cycle if they happen off-site. To address this, program providers can work with teachers to develop meaningful pre-trip and follow-up activities, distinctly embedding the field trip within the learning cycle as the "concrete experience." Alternatively, they might design a field trip program to complete the full learning cycle on the site visit itself—beginning with a concrete experience, followed by facilitated reflection (reflective observation), opportunities to make connections to what they already know and develop new understandings (abstract conceptualization), the development of hypotheses and planning for subsequent action (active experimentation), and finally application of their new ideas to a new challenge (another concrete experience). We discuss these options, drawing on evidence of a recent national study of 334 middle school field trip programs focused on environmental education that took place across 24 states and Washington, DC within the USA in 2018 (Dale et al., 2020; Institute of Museum and Library Services [IMLS], 2016; Lee et al., 2020; National Science Foundation [NSF], 2016).

Embedding the Field Trip as a Concrete Experience

The most common framing of field trips considers them primarily as the "concrete experience" upon which participants are intended to subsequently reflect, draw

conclusions, and apply their gained knowledge to new situations (Huang et al., 2016). As concrete experiences, they are ideally preceded by an active experimentation phase, in which clear planning, setting of expectations, and hypothesizing might take place to enhance the on-site learning experience (Moseley et al., 2019). Evidence has been mounting for decades about the importance of both pre-visit preparation and post-visit follow-up activities to enhance learning outcomes associated with school field trips to places such as museums, zoos, aquariums, nature centers and parks (Anderson et al., 2000; Farmer & Wott, 1995; Gennaro, 1981; Smith-Sebasto & Cavern, 2006; Stern et al., 2008; Storksdieck, 2001). Program providers in many cases have developed close collaborations with schools to enhance these connections. Some have developed supplementary materials to help prepare students for their visits as well as enhance reflection, conceptualization, and even active experimentation following the field trip. However, interpreters and educators may often wonder the extent to which these materials are used (see Phillips et al., 2007), or how often teachers draw any meaningful connections back to the field trip once they return to the classroom.

In our recent national study of EE field trips, we examined the relationships between pre-visit preparation, post-visit follow-up and students' learning outcomes related to environmental literacy, positive youth development, and 21st century skills (Lee et al., 2020). We found that higher levels of pre-trip logistical and subject matter-related preparation, including specific lessons, enhanced all measured student outcomes. We also found that subject matter-related follow up (beyond just discussing the highs and lows of the experience) enhanced student learning. In short, the best outcomes were achieved when (1) participants knew what to expect on-site; (2) they received pre-trip subject matter preparation; and (3) they reflected on the experience through additional classroom discussion or related coursework where specific ties were made to what they had learned on the field trip. Pre-visit preparation in the study included appropriate logistical preparation (knowing what to bring, discussing what the day would be like); practice with technical skills (learning how to use equipment, such as a compass, they would be using on-site) and relevant vocabulary; and discussion or lessons revealing key themes that would be explored in more depth during the on-site experience. Post-visit follow-up included analyzing and interpreting data collected on the field trip, reflecting on on-site experiences to develop hypotheses that might apply to new situations, and making connections between new material and key concepts learned on the field trip.

Completing the Experiential Learning Cycle on a Single Field Trip

Only 16 of the 334 programs observed in our national study completed the full experiential learning cycle *during* the field trip experience. An example involved developing research questions based on some preliminary observations and discussion (active experimentation), completing a short research experiment in which participants would make observations about the environment and collect water quality data (concrete

experience), and drawing their own conclusions about linkages between the landscape, potential disturbances, and water quality (reflective observation and abstract conceptualization). To continue in the cycle, such a program might then involve participants traveling through the landscape, making additional hypotheses based on their observations and taking additional measurements (active experimentation, again) to test these hypotheses.

At a historic site, the learning cycle could look somewhat different. A concrete interpretive experience could lead visitors through a powerful thematic story, incorporating reflective practices (reflective observation) that help visitors to draw their own conclusions and draw parallels to their own lives (abstract conceptualization). The interpreter then could challenge the audience to consider how they could apply the lessons they've learned to the present day and their lives (active experimentation).

Practical Implications

Experiential learning goes beyond simply having a single immersive experience or experiencing a set of hands-on activities. Considering the full experiential learning cycle, both on-site and beyond, can enhance learning outcomes for participants in interpretive and education programming at interpretive sites. For school field trips or group visits, this might entail more extensive collaboration by interpreters with teachers and chaperones before and after a visit to ensure completion of the experiential learning cycle. For more informal interpretive experiences, aiming to complete the full cycle on-site could improve the likelihood of providing what Tilden and others have referred to as *holistic* experience (Stern et al., 2013; Tilden, 1957), enhancing reflection, facilitating meaning-making, and helping students connect to something beyond the experience itself. If our goals include making strong connections to an interpreted site with lasting impacts on visitors, these efforts may be well worth it.

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