Peer-Reviewed Article

Deciphering the Defining Features of Experiential Learning

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Abstract

This paper addresses a call for submissions to provide greater clarity on the defining features of experiential learning. This is accomplished with a critical review of literature relevant to experiential learning and a qualitative-leading, mixed-method investigation exploring the defining features, canonical works, and theoretical foundations of experiential education occurring in natural settings. Postulations about experiential learning can be organized by foundational literature (ranging from Rousseau to Dewey) and definitional literature (with the formation of professional societies, research, and definitions). This is investigated further by exploring the perspectives of experiential education experts and practitioners, revealing the knowledge base to be broad and eclectic yet lacking cohesiveness. Personal experience was the single most agreed upon source of knowledge. There was not a shortage of information, but instead an overall lack of organization and cohesiveness within the field. The investigation identified the following defining features: personal experience, existential engagement, agency, fluid affordances, flexible pedagogy, empirical and conceptual ways of knowing, freedom, and precision. In addition to these insights on experiential education, this study offers a research methodology that may be useful for clarifying how experiential learning occurs within higher education settings which, in turn, can help implement it more equitably.

Introduction

The purpose of this paper is to reflect on the status of the experiential education field with the goal of gaining greater clarity on its defining features. This is accomplished with a critical review of literature relevant to experiential learning and reflection on the Meyer's (2020) mixed method dissertation study exploring the defining features, canonical works, and theoretical foundations of experiential education occurring in natural settings. Findings from this investigation suggest the field possesses a broad and eclectic knowledge base that seems adequate for current educators but may lack sufficient clarity for novice practitioners and administrators desiring clearer operational features. Outcomes from this investigation provide clarity for professionals within the field and challenge the paradigm of tacit knowledge transmission by considering how that process impacts access.

Critical historical review

It is helpful to identify foundational ideas that influenced the development of experiential learning pedagogy, and the ways experiential education has developed as a field.

Foundational ideas. Although the foundational ideas are wide ranging, influences from Rousseau, progressive education, social psychology, and adventure education have been highly influential.

In Emile, Rousseau (1762/1956) challenges the conventions of formal education which emphasized teacher directed instruction and learning by rote. Instead, he suggested education worked best when children had active, hands-on opportunities to learn (based on their interests and paced accordingly) before mentors (i.e., teachers) should intervene with lectures and literature. Although these ideas ran counter to more widely accepted beliefs about education, Emile resonated with a broad readership, and it has had an important influence on education.

Despite Rousseau's impact, modern educational approaches were heavily influenced by industrialization prioritizing efficiency through the standardization of time, assessment, and teaching (Karier, 1986). John Dewey promoted a balanced approach to education that incorporated progressive and conventional ideas (Kliebard, 1995). As part of that process, he sought to reduce the gap between a learner's experience and the subject matter by promoting a student-centered educational experience that prioritized the learner's experience over didactic instruction and learning by rote. Experience and Education (Dewey, 1938) arguably serves as the most distilled summary of his thoughts on this type of progressive education.

Albert North Whitehead (1929), another progressive educator, called for an educational approach that promoted learner agency and instruction that fostered aliveness; he resisted anything that made learning inert. Whitehead also suggested that education should balance freedom and discipline—freedom to explore ideas with curiosity and passion, and discipline to engage in the hard work of learning by exercising focus and diligence. Learners should be able to engage in the free exploration of ideas before they develop self-discipline. Then self-discipline can be applied to freedom to strategically leverage original thoughts and develop new ideas.

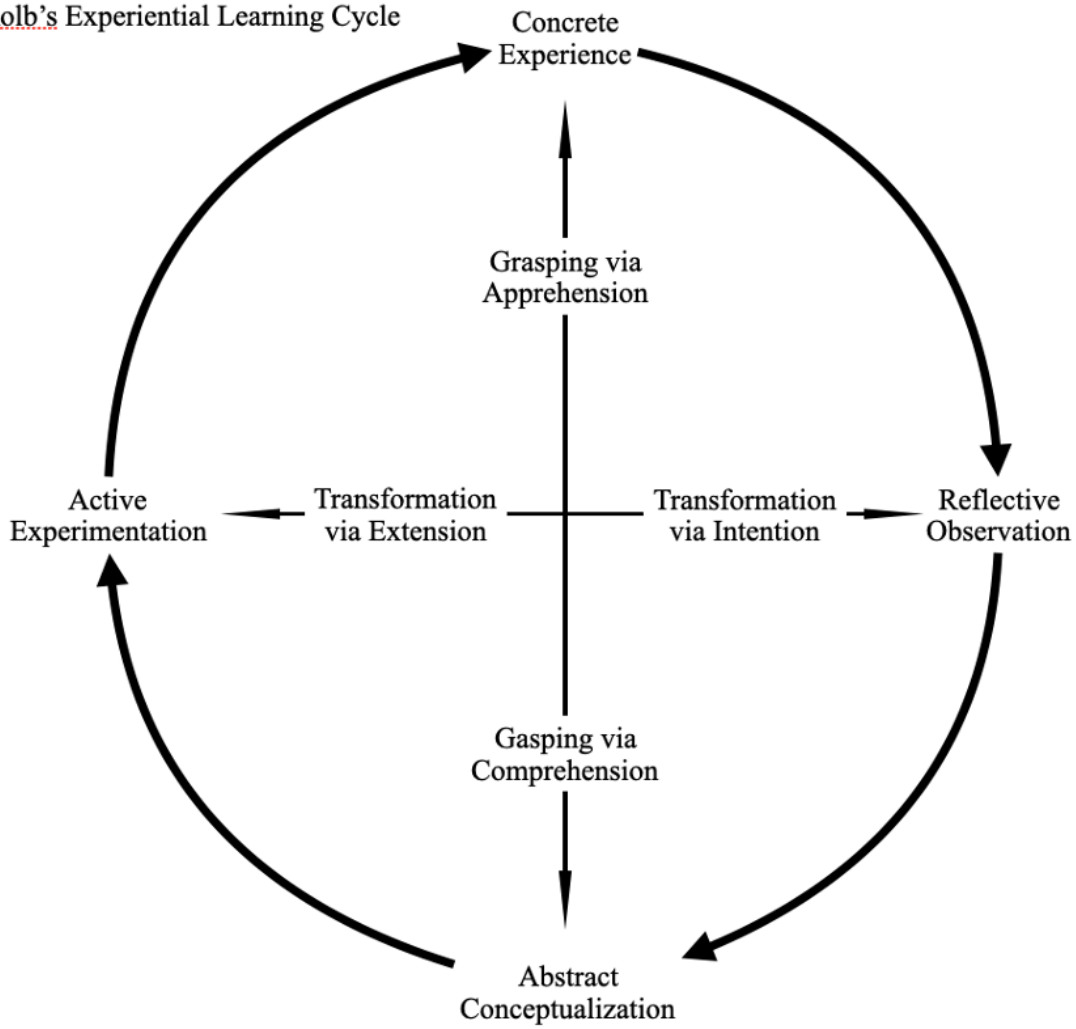
Kurt Lewin was a social psychologist who influenced early notions of experiential learning through the innovation of "T-groups" (i.e., training groups). T-groups emphasized "present process" (in the moment) opportunities for participants to receive direct feedback about how their actions impacted others as those behaviors played out in the group process (known as the "here and now"; Johnson & Johnson, 1991). The term "experiential" has been linked to Lewin's description of that learning process (Seaman, 2019).

Outward Bound, which was originally developed in the U.K. by Kurt Hahn as a form of survival training, was brought to the U.S. in the 1960s, and it quickly morphed into an expeditionary training program that promoted wilderness survival, self-sufficiency, and character development (Miner & Boldt, 2002). As it spread through expeditionary "schools" it became so successful that attempts were made to incorporate the "Outward Bound Way" into more conventional educational endeavors (e.g., Upward Bound, Project Adventure, Dartmouth Center, Mankato State College).

Formalization. These various educational initiatives tended to operate independently until the 1970s, when the field began to formalize through the development of societies, journals, research, and definitions.

The National Society of Experiential Education (now the Society for Experiential Education [SEE]) was founded in 1971. In 1972 the Association for Experiential Education (AEE) was formed. Shortly thereafter Kolb and Fry (1975) used Lewin's observations about "here and now" learning occurring in T-groups to develop a working theory of experiential learning which they used to explain learning styles. And, in 1978, the Journal of Experiential Education (JEE) was established as part of the larger work undertaken by AEE to substantiate scholarship around experiential education.

Figure 1: Kolb's Experiential Learning Cycle



Formal attempts to define experiential education occurred in the 1980s, which tended to follow an experience > reflect > learn cycle. Joplin (1981) suggested that "all learning is experiential," and she stressed the importance of experience and reflection as central components to experiential education in a five-stage model: a) focusing event > b) challenging action > c) feedback > d) support > e) debrief.

Kolb (1984) refined his earlier model by drawing from Lewin, Piaget, and Dewey to develop the Experiential Learning Cycle (KELC; Figure 1). KELC proposes the following four-stage process: 1) concrete experience, 2) reflective observation, 3) abstract conceptualization, and 4) active experimentation. Kolb also stressed the importance of the dialectic tensions of grasping knowledge through empirical and conceptual processes (which he termed apprehension and comprehension, respectively) and transforming that knowledge through internal and external processes (termed intention and extension, respectively).

The establishment of these definitions seemed to create an opportunity for the field to begin thinking critically about the implications of that process. A co-authored manuscript addressing the question "What is experiential education?" by Chapman, McPhee, and Proudman (1992) offers distinct perspectives on the definitional components of experiential education. Chapman suggests experiential education can be understood several different ways, and what matters most is specifically what inquirers



are seeking to understand. McPhee refuses to answer and instead warns that defining experiential education risks ruining it if the defining features become prescriptive and formulaic. Proudman locates experiential education as a teaching methodology useful for aiding learners in developing deep emotional relationships. These viewpoints reflect the range of perspectives about defining experiential instruction and foreshadow future stances about this dilemma.

At the societal level, AEE developed its first set of standards in 1994 to establish safety parameters for a rapidly expanding outdoor adventure industry and enable qualified programs (operating within those standards) to become accredited. In 1998, NSEE developed its Eight Principles of Good Practice for All Experiential Learning Activities prioritizing 1) Intention, 2) Preparedness and Planning, 3) Authenticity, 4) Reflection, 5) Orientation and Training, 6) Monitoring and Continuous Improvement, 7) Assessment and Evaluation, and 8) Acknowledgement.

Lindsay and Ewert (1999) compared mainstream education with experiential education. They highlight the way mainstream education tends to be driven by external criteria (such as standards, Carnegie units, norms, and top-down instruction) whereas experiential education prioritizes learner-centeredness, individualization, and holistic learning (see original manuscript for a useful comparison table). As they consider the outcomes and challenges generated by each approach, they conclude that experiential education and mainstream education should not be integrated to best address the goals for which they were individually created.

Itin (1999) distinguishes the terms "experiential education" from "experiential learning." He suggests that learning is a process involving change in an individual whereas education involves a transaction between an educator and a student. Thus, experiential learning can be understood as the individualistic way one acquires knowledge from a lived experience, and experiential education can be understood as a more formal social enterprise involving classes, a teacher, and students designed to achieve a pedagogical goal.

In a review of KELC and a comparison to Dewey's theory on reflective thought and action, Miettinen (2000) critiques Kolb for overemphasizing Lewin's work. Miettinen suggests that Kolb



focused too much on T-groups, which (Miettinen asserts) were less important to Lewin than Kolb promotes. Instead, Miettinen identifies an idea developed by Dewey (1925/1958) about primary and secondary experiences as a more useful framework for explaining the ways knowledge is acquired.

Kirschner et al. (2006) critique of minimal guidance instruction (which encompasses experiential education) by suggesting it fails to consider the implications of cognitive processing. They suggest that novices and experts fundamentally approach tasks differently. Novices take more time and typically make more mistakes than experts. Additionally, ambiguous instructions (associated with experiential programming) create an impediment to a novice learner's cognitive load, which unnecessarily complicates learning. Lastly, the authors suggest minimal guidance instruction does not take advantage of important knowledge that has been gleaned previously, which can cause common problems to be repeated.

As part of its scholarly work, AEE has periodically published compendiums consisting of literature relevant to experiential education (typically derived from JEE). In the fourth edition, the editors (Warren et al., 2008) suggest:

> Experiential education has been defined as both a philosophy and a methodology while experiential learning may be thought of as a process. In experiential education, the teacher or leader intentionally uses experiential learning (the process of the student encountering direct experience) to move toward a specific learning outcome. (p. xii)

Although this definition clarifies the differences between experiential education and experiential learning, it also introduces the idea that experiential education should be considered a philosophy, which adds another complicated element.

The field of experiential education also shares many overlapping features with other similar approaches such as internships, service learning, community service and engagement, and undergraduate research. In fact, in his review of high-impact educational practices (HIPs), Kuh (2008) identifies experiential learning as being an important feature of service learning/community-based learning and internships. Yet in a more recent reflection Kuh calls for establishing more precision about the defining features of HIPs, suggesting that, like experiential education, HIPs would benefit from more definitional clarity (Kuh & O'Donnell, 2013).

To summarize, the field of experiential education has a long history and an extensive literature base. The problem of definition does not derive from a shortage of perspectives, but from what appears to be an overall lack of integration and consensus about the defining features. Seaman et al. (2017) trace the evolution of experiential learning theory and suggest, "Unresolved issues in research on experiential learning can be addressed by directly examining the concept's historical evolution, ontological assumptions, and ideological commitments, and by approaching experiencing and learning empirically by other vantage points" (p. NP16). Meyer and Seaman (2021) provide an example of this type of examination as they theorize what lies beyond experience > reflect > learn cycles.

Despite the long historical discussion of experiential education, the lack of clarity about its central features may point to a larger issue of identity. Although the knowledge base of experiential education is broad, it is also fundamentally eclectic, and it does not appear to possess a well-agreed-upon theoretical foundation or research trajectory. In many ways the field seems to operate as a guild with "veteran" educators sharing their knowledge with novices through formal and informal apprenticeships. Yet this creates a problem of access, which impacts equity. If the conceptual understanding is limited to those who are "in the know," that knowledge is inherently restricted. Because it is not immediately accessible to everyone (by means of a clear definition and cohesive knowledge base), those who lack access to the expert-apprenticeship chain lack access to the field. Thus, clarity of operational definition has an important association with access and thereby equity.

Although this literature review attempted to cast a broad net and capture the historical and canonical highlights related to the field of experiential education, it inevitably missed some perspectives. To address this limitation and further explore these observations, it is useful to consider the perspectives of the field's leaders. This was accomplished with a mixed method study exploring the professional development of experiential education applied to nature-based contexts.

Methods [1]

To satisfy requirements for his doctoral dissertation, Meyer (2020) conducted a sequential, qualitative leading, mixed method study that consisted of interviewing experts and surveying practitioners to explore the professional development of experiential education practiced in nature-based settings. (Montana State University's) Institutional Review Board granted approval for (Meyer) to conduct the study.

The core component of the study involved interviewing individuals who had been identified as theoretical experts in the field. Although six individuals were selected for the original study, two specialized in experiential education. Key ideas emerging from the interviews were used to develop an online survey exploring nature-based experiential educators' perspectives on informational resources, experts, and source material; features that impact their understanding; perspectives on informative resources; and satisfaction with the current knowledge base. The survey was promoted for one month through several national and regional organizations as well as social media, generating103 responses.

Findings

Interviews

The experts held varying perspectives about the knowledge base of experiential education. One felt the literature base was vast and eclectic, which seemed to operate through a haphazard process of accumulation rather than via a focused, scholarly agenda, subsequently creating a disorganized feel. Another expert felt otherwise, and they asserted that the knowledge base was substantial, supported by a clear conceptual framework. They traced conversations about experiential learning to ancient Greece (e.g., Plato's Meno). That expert also supported their perspective by referencing the growing number of degrees in experiential education throughout the U.S. Another expert identified significant overlaps between nature-based experiential education and high-impact practices.

The experts identified Dewey as providing key insights about the defining features of experiential education, particularly Dewey's notion of primary and secondary experiences (which reflect empirical and conceptual ways of knowing, respectively). Although Kolb was identified by the experts, his over-emphasis of T-groups was also noted. There was a general sense that experiential education required systemic and holistic thinking, which worked best with a good understanding of educational and developmental theories. Experiential education was

[1] Note: more detailed descriptions of the Methods and Findings are included in the Appendix.



also identified as an effective way to teach important lessons because it was so practical. However, one of the experts wondered whether the term "experiential" was unnecessarily confusing, leading them to ponder if it would be better to focus on the qualities of good teaching, rather than try to parse out the operational features of experiential learning.

The different perspectives about the knowledge base and conceptual framework of experiential education parallel similar observations made in the literature review.

Surveys

The survey generated wide ranging perspectives about the knowledge base of nature-based experiential education from 103 respondents. The respondents overwhelmingly identified "personal experience" as the top resource informing their general understanding, followed by "books," "conferences," "internet resources," and "word of mouth." "Personal experience" was also identified as the most important resource informing their knowledge base, followed by "experiential learning theories," "development theories," "nature-based learning theories," and "licensing standards." When asked about the features informing their understanding of nature-based experiential education, the respondents generated the following ranked categories: 1) hands-on & inquiry focused, 2) experiential learning, 3) student centered/directed, 4) regular & direct contact with nature, 5) environmental education, 6) nature-based pedagogy, and 7) other. "My own personal experience" was also identified for informing respondents' knowledge about the effectiveness of this approach, followed by "my program's academic success," "research findings," "my school's rank within the larger system," "international student assessment data," and "other." A question about experts who have influenced their understanding prioritized the following individuals: 1) Richard Louv, 2) Maria Montessori, 3) Jean Piaget, 4) David Sobel, 5) John Dewey, 6) Kurt Hahn, 7) Lev Vygotsky, 8) David Kolb, 9) Kurt Lewin, 10) Marina Ewald, and 11) Cathy Jordan as the top influencers.

The respondents felt adequately assisted with the general resources for advancing their understanding. And a more focused follow-up question to parse out

specific resources did not reveal strong tendencies. In general, personal experience was prioritized as the most important resource for informing their understanding and knowledge source. Although there was a general satisfaction with the available resources, it derived from an eclectic resource base.

Limitations

There were several limitations to this study. Although the literature review provided a broad overview of the history of experiential education, it likely missed important perspectives (such as a more explicit connection between experiential education and high-impact practices). The experts interviewed were carefully selected for their expertise and lack of commercial engagement with the topic, but, given that focus, it is also likely some perspectives were not gained. The survey was not promoted fully throughout the experiential education community (e.g., it was not promoted via SEE), and it may have missed important perspectives. Additionally, the focus on the nature-based application of experiential education made the interview and survey findings more difficult to interpret for a more general, definitional exploration of experiential education. While these limitations create challenges to the generalizability of the findings, they also point to directions for future research. For example, if a similar type of study were conducted within higher education, it may provide a valuable contribution to the ongoing work of SEE and this journal.

Discussion

This article set out to explore the defining features of experiential learning through a critical review of its literature base and by synthesizing findings from a study exploring the knowledge base and conceptual development of experiential education applied to nature-based contexts. Synthesizing key findings from this three-part investigation suggests experiential education has a long informal (e.g., Plato, Dewey, Lewin) and formal (1970s to present) history.

As noted by the experts, a substantial amount has been written about experiential education, which was also reflected in the survey findings. The experts also agreed that experiential education had a wide literature base, but they disagreed about its coherence and usefulness for practitioners. One expert felt that it was eclectic, equating to an amalgamation of independent ideas, while another felt that it was substantial, affording adequate training for future educators.

Personal experience seemed to be a main source of knowledge for survey respondents, suggesting that those educators valued learning about the trade directly through lived experiences. While this seems apropos for experiential learning, that tendency does not promote the establishment of a coherent knowledge base, nor does it foster easy and equitable opportunities for novices to gain access to the field—which can become problematic when the resource base is wide-ranging and difficult to navigate. The survey findings reflected an eclectic knowledge base that seemed to prioritize popular press literature (e.g., Louv, 2005) over academic research. The lack of cohesiveness about influential resources is not necessarily problematic, but a lack of clarity does not foster ample opportunities for the knowledge base to grow with purpose. And, relying on knowledge transmission through informal networks risks privileging the privileged while the lack of easily accessible and discernable information creates barriers for acquiring diverse perspectives. Given these observations, SEE's work, supplemented by ELTHE's special issues, serve as terrific endeavors to establish greater clarity.

Important Features of Experiential Education

Given these observations, it is helpful to return to the original question: What are the defining features of experiential education? The following list distills some key ideas uncovered in this investigation.

Direct, personal connection to what is being learned. "Personal experience" is a core component to experiential learning, and it is paramount for fostering engagement. This theme can be traced from Rousseau (1762/1956) throughout experiential learning literature, and it is reified by the experts and practitioners who participated in this study.

Existential engagement. Although this term was not used directly, the idea was alluded to often. It was promoted by Rousseau and themes of it remerge in Dewey and Lewin's influences. It is central to the theories promoted by Joplin (1981) and Kolb (1984), and it was identified by both experts as important knowledge sources to their own learning and the survey respondents through their affinity for personal experience. Learning in the moment, through one's senses, appears to be an integral part to experiential learning.

Learner agency. Opportunities for learners to make decisions for themselves is another important theme. Rousseau promoted this in Emile, and it is a central to Whitehead's (1929) juxtaposition of freedom and discipline. It is also central to the progressive perspective espoused by Dewey. The importance of "personal experience" uncovered in the survey may also be connected to learner agency.

Fluid affordances for learning. Educational affordances refer to the functional opportunities offered by the environment that can be used for achieving a certain task (see Heft, 1988). Affordances can be rigid (such as fixed desks in a climate-controlled classroom) or fluid/open (not having pre-assigned purpose/function). Although this concept was not overtly discussed, the notion of affordances is rife in experiential learning literature. Fluid affordances serve as an important component to what makes experiential learning unique because they foster opportunities for creativity.

Flexible pedagogy. The application of fluid affordances to the instructional process fosters flexible pedagogy. This is part of the reason why instructions in experiential programming are often kept vague and tend not to be overly prescriptive (so learners have greater functional opportunities to be creative; see Chapman et al., 1992). Although Dewey did not use the term, the balance he tried to strike between teacher directed and student led education alludes to this notion of flexible pedagogy. This may also speak to the breath of resources informing survey respondents' knowledge bases.

Ways of knowing. The epistemological processes of learning through one's senses versus learning through one's thoughts is abundant in experiential learning literature, and this juxtaposition in these contrasting ways of knowing seems to be at the heart of what distinguishes conventional education from experiential education. This perspective may explain the study participants' preferences for learning from personal experience over learning from more conventional educational materials (e.g., books, lectures, etc.).

Freedom. Opportunities to explore ideas on one's own was promoted by Rousseau, Whitehead, and Dewey. This concept is supported more recently in Chapman et al.'s (1992) editorial, hinted at by the experts, and identified by survey respondents.

Precision. Whitehead (1929) proposed precision as the corollary to freedom, and he suggested it is essential for developing self-discipline. Precision is also an important component to conventional education. Perhaps, because of that, experiential instruction seems to have an ambivalent attitude toward precision, which is reflected in a subtle resistance to it throughout the literature base (e.g., Chapman et al., 1992). There seems to be tacit acknowledgement that precision is important, yet an undercurrent of resistance within the ethos of experiential instruction. Whitehead's (1929) postulations offer a useful perspective for addressing a balanced relationship between freedom and precision.

This list summarizes definitional features uncovered in this investigation. As theorists, researchers, educators, and administrators seek to establish a foundation for the practical application of experiential instruction, this list offers a place to start.

Conclusion

This article sought to identify defining features of experiential learning through a critical review of its literature base and the synthesis of a study exploring the conceptual framework and defining

features of experiential education occurring in nature-based contexts. This investigation identified the following features: personal experience, existential engagement, learner agency, open affordances, flexible pedagogy, ways of knowing, freedom, and precision. Clarification of these features aids in demystifying the process of experiential learning. Clarification also promotes equity by increasing transparency and access—enabling experiential education to be used with greater pedagogical knowledge with underserved populations. Although limited, the mixed method study described in this investigation also provides a useful methodological template that could be used for future research exploring how experiential learning occurs in higher education setting as it pertains to Kuh et al.'s (2006) high-impact practices relating to engagement, persistence, and learning. In these ways, this article addresses this special issue's exploration of definition and practice. It also points to directions for future scholarship, which include investigating the knowledge base and conceptual framework of experiential learning occurring within higher education, exploring the relationship between definition and access, and exploring what (if anything) might be lost if a definition of experiential learning is formalized (to understand the perspectives of experiential educators who are resistant to definition).

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Appendix

This section provides additional information about the research methodology and more detail for the findings.

Methodology

Meyer's (2020) original study followed a methodology developed by Morse (2010). The core component of the study involved interviewing individuals who had been identified as theoretical experts in the field based on the following attributes: experience, expertise, impact, scholarship, and novel program implementation. The pool of interviewees was delimited to American educators/researchers who did not engage in commercial enterprises related to their area of expertise. Each interviewee was contacted and provided with the consent form and interview questions before the interview occurred. Upon gaining consent, each semi-structured interview was audio recorded, transcribed, coded (employing data layout, pre-coding, and preliminary codes proposed by Saldaña, 2016), and summarized. An abbreviated manuscript summarizing the interview findings was then returned to each interviewee as a means of member checking, soliciting feedback, and clarification. After those summaries were returned and the amendments were made, the full summaries were then used as primary source data. Six participants completed the interviews (see Meyer, 2020 for full manuscripts). Saturation was determined when the interviewees began referencing one another's work and no new names emerged from the pool of potential interviewees.

The interviews were then used to develop a practitioner survey exploring to the following: a) resources informing participants' understanding of the instructional approach, b) sources informing educators' knowledge, c) features informing educators' understanding, d) agreement about resources informing their knowledge, e) experts who have influenced their understanding, and f) satisfaction with the knowledge base for advancing their understanding. The survey was promoted for one month by AEE; Children and Nature Network; Natural Start Alliance; North American Association for Environmental Education; Montana Association for Environmental Education; and Washington Department of Children, Youth, and Families. Additionally, it was promoted more indirectly via social network connections (e.g., Twitter and Facebook) by the author and several interviewees. Although 103 individuals completed the survey, it is not known what percentage of the population was sampled, creating a limitation to the study.

Interview Findings

Expert 1 had considerable experience reviewing journal manuscripts about experiential education and their scholarship prioritized historical foundations and non-traditional approaches to experiential education. Expert 2 identified as a philosopher and a professor of experiential education. Both experts reported being introduced to experiential learning through their participation in outdoor adventure programs in early adulthood, and curiosity about those personal experiences led them to explore experiential learning more deeply through graduate study.

Expert 1's editorial experience exposed them to many manuscripts, and they observed that most authors seemed compelled to ground their work in Dewey and Kolb to establish creditability. Although they felt that Dewey provided a fundamentally useful perspective that grounded experiential education canon, their own scholarship led them to critique Kolb's experiential learning theory for overly emphasizing the Lewinian notion of T-groups. Because of that, Expert 1 cautioned against mistaking Kolb's model for learning theory (because they felt it did not qualify). Moreover, they felt that Kolb's model became problematic when experiential educators disregarded what was actively occurring with their students and forced them into the next stage of the cycle to fulfill a prescribed learning program (such as stopping an activity to facilitate a reflection before participants were ready).

Expert 1 commented that the literature about experiential education was vast and eclectic, which created a disorganized feel. They asserted that the knowledge base seemed to operate by an "accumu-

lative approach" to establish legitimacy rather than a focused, scholarly agenda. They also wondered whether the word "experiential" confused the practice, leading them to ponder if it might be more useful for experiential educators to pedagogically consider how to foster instruction that personally mattered to learners and put them in touch with more direct ways to learn it rather than getting lost in the nuances of what is meant by the term "experiential."

Expert 2 philosophized that the American educational system was heavily influenced by Descartes, creating the perspective that "to know something one needs to have a cognitive experience of it… (in other words) theory comes first" (Meyer, 2020, p. 146). However, they felt that experiential education reversed that priority by emphasizing a direct, lived (i.e., empirical) experience before requiring learners establish a theory. Expert 2 traced this epistemological debate to Plato (e.g., Socrates' debate with Meno about whether virtue can be taught). Despite that long history, Expert 2 felt Dewey's explanation of primary and secondary experience satisfied this epistemological/conceptual dilemma. "For Dewey, primary experience originated from hands-on, empirical learnings and secondary experience derived from conceptual, theoretical cognitions; disconnecting those experiences was a mistake" (Meyer, 2020, p. 147). They suggested Dewey and Whitehead serve as important reference points for understanding this fundamental perspective.

Expert 2 cautioned that over emphasizing theoretical/conceptual experiences without grounding them in direct experience was often "miseducative" (Dewey's term for learning that resulted from bad instruction) leading to "know-nothingism" (Expert 2's term for useless knowledge that had potentially disastrous consequences in dire situations). When asked about the knowledge base supporting experiential education, Expert 2 felt it was substantial and adequate with a well-articulated underlying conceptual framework. They felt that the growing number of degrees in experiential education around the country supported that perspective. Moreover, Expert 2 pondered whether the field of experiential education was being held to a higher standard for establishing/maintaining its professionalism than other disciplines.

Because Meyer's (2020) original study focused on nature-based experiential education, parts of it are not relevant to this article. The interview findings from the experiential education content experts had direct application to the focus of this special issue, but the perspectives from the other experts who were interviewed in the original study were less applicable, creating a limitation. Additionally, experiential education has many people who could be considered experts, and it is likely some perspectives were not captured in the original study. Despite these limitations, the following ideas emerged as highlights from those other interviews.

Expert perspective. "The pedagogy that is typical in nature-based learning …has several characteristics of high impact practices – hands on, active, meaningful, collaborative, etc." (Meyer, 2020, p. 125).

Discussion. The connection between the hands on, active, meaningful, and collaborative learning contexts and high impact practices is important. While there is some direct overlap in the literature (e.g., Kuh, 2008), the details of that connection could be better clarified as suggested by Kuh and O'Donnell (2013).

Expert perspective. Although nature-based learning and environmental education share many overlapping features, the underlying goals create foundational dissimilarities.

Discussion. Despite the tendency to try to assimilate related educational constructs, sometimes forcing that convergence is not appropriate if constructs have different foundational purposes.

Expert perspective. Educators needed to be able to think systemically, holistically, and complexly, which means being grounded in educational and developmental theories that adequately inform their practice while maintaining pedagogical flexibility.

Discussion. Holistic knowledge, theoretically grounded in human development, plays a crucial role in experiential education.

Expert perspective. "Nature-based learning is a form of place-based learning, which is a subset of experiential education" (Meyer, 2020, p. 136).

Discussion. This perspective promotes the usefulness for conceptually organizing the relationship of these pedagogical approaches. For example, it may be beneficial to show the relationship between high-impact practices and experiential learning more clearly, such as using Venn diagrams to depict areas of overlap and areas of uniqueness.

Survey Findings

103 respondents completed the survey. Most reported teaching for six or more years in "out of school time", "public schools", and "summer programs." The survey did not explore other demographic features such as race or gender.

Resources informing participants' understanding: Respondents were asked to select all the resources from a variety of categories that supported their understanding of nature-based experiential education. They generated the following counts listed in Table 1, which heavily prioritized personal experience.

Table 1

Resources Informing Participants' Understanding

Category	Count (Percentage)
Personal experience	96 (93.2%)
Books	57 (55.2%)
Conferences	51 (49.5%
Internet resources	51 (49.5%
Word of mouth	40 (38.8%
Other*	35 (34.0%)
Journals	16 (15.55)

Note: N = 346 generated from 96 respondents selecting multiple categories
*Other resources ranged from "graduate school" to "colleagues "to "Outward Bound" to "children's interests." For full list see Meyer's (2020) study.

Knowledge about the effectiveness of this approach: Respondents were asked to rank order the following sources for acquiring knowledge about nature-based experiential education: Personal experience, class's/program's academic success, school's rank, research findings, international assessment data, and other (Table 2). In this table, the means and standard deviations offer ways to understand the ranked positions, with "my own personal experience" ranked highest.

Table 2

Frequency of ranked sources informing respondents' knowledge

	Ranked Position					
Category	1	2	3	4	5	6
My own personal experiences	63	63	63	63	63	63
M = 1.48; SD = .80	(67%)	(21%)	(10%)	(1%)	(1%)	(0%)
My class's (program's) academic success	13	39	25	13	3	1
M = 2.54; SD = 1.06	(14%)	(41%)	(27%)	(14%)	(3%)	(1%)
My school's rank within the larger region	0	2	11	39	34	8
M 4.37; SD = .87	(0%)	(2%)	(12%)	(41%)	(36%)	(9%)
NBEE* research findings	16	21	32	22	3	0
M = 2.73; SD = 1.09	(17%)	(22%)	(34%)	(23%)	(3%)	(0%)
International Student Assessment Data	0	1	4	17	51	21
M = 4.93; SD = .82	(0%)	(1%)	(4%)	(18%)	(54%)	(22%)
Other	2	11	13	2	2	64
M = 4.95; SD = 1.63	(2%)	(12%)	(14%)	(2%)	(2%)	(68%)

Note. N = 94

*NBEE refers to nature-based experiential education

Ranked features informing respondents' understanding: Respondents were asked to rank the following features that inform their understanding of nature-based experiential education: 1) student centered/directed, 2) experiential learning, 3) hands-on & inquiry focused, 4) environmental education, 5) nature-based pedagogy, 6) regular & direct nature contact, and 7) other (Table 3). Again, means provide a way of understanding these data with several of the categories (e.g., student-centered, experiential learning, and hands-on) being closely ranked.

Table 3

Frequency rank of features informing respondents' understanding

	Ranked Position						
Category	1	2	3	4	5	6	7
Student-Centered/Directed	24	21	22	15	6	10	0
M = 2.88; SD = 1.58	(25%)	(21%)	(22%)	(15%)	(6%)	(10%)	(0%)
Experiential Learning	20	24	21	25	6	2	0
M = 2.79, SD = 1.30	(20%)	(24%)	(21%)	(26%)	(6%)	(2%)	(0%)
Hands-on & Inquiry Focused	14	33	31	8	11	1	0
M = 2.71; SD = 1.20	(14%)	(34%)	(32%)	(8%)	(11%)	(1%)	(0%)
Environmental Education	4	8	7	15	28	32	4
M = 4.70; SD = 1.49	(4%)	(8%)	(7%)	(15%)	(29%)	(33%)	(4%)
Nature-Based Pedagogy	5	3	4	11	31	39	5
M = 5.01; SD = 1.40	(5%)	(3%)	(4%)	(11%)	(32%)	(40%)	(5%)
Regular & Direct Nature Contact	29	7	13	20	15	12	2
M = 3.30; SD = 1.85	(30%)	(7%)	(13%)	(20%)	(15%)	(12%)	(2%)
Other	2	2	0	4	1	2	87
M = 6.61; SD = 1.23	(2%)	(2%)	(0%)	(4%)	(1%)	(2%)	(89%)

Note. N = 98

Resources influencing their knowledge base: An exploration of the specific sources impacting participants' knowledge about nature-based experiential instruction revealed that most respondents strongly agreed "personal experience" was an important source of knowledge followed by "experiential learning theories," "development theories," "nature-based learning theories," and "licensing standards" (Table 4).

Table 4

Respondent level of agreement about specific resources influencing their knowledge

Category	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	M (SD)
Personal Experience	**78 (75.7%)**	**23 (22.3%)**	**2 (1.9%)**	**0 (0%)**	**0 (0%)**	**1.28 (.56)**
Experiential Learning Theories*	**34 (33.3%)**	**45 (44.1%)**	**15 (14.7%)**	**8 (7.8%)**	**0 (0%)**	**1.97 (.89)**
Licensing Standards*	**3 (2.9%)**	**6 (5.9%)**	**28 (27.5%)**	**36 (35.3%)**	**29 (28.4%)**	**3.8 (1.01)**
Development Theories	**27 (26.2%)**	**53 (51.5%)**	**14 (13.6%)**	**8 (7.8%)**	**1 (1%)**	**2.06 (.89)**
NBL Theories	**15 (14.6%)**	**32 (31.1%)**	**35 (34.0%)**	**19 (18.5%)**	**2 (1.9%)**	**2.62 (1.01)**

Note. N = 103; *N = 102

Influential Experts. Respondents were asked to select experts who have influenced their understanding about the nature-based experiential instructional practice. The following ordered list was generated (Table 5). Nature writer Richard Louv (2005) received the highest count.

Table 5

Experts who have influenced respondent's understanding

	Count	Percentage
Richard Louv	65	63%
Maria Montessori	57	55%
Jean Piaget	51	50%
David Sobel	50	49%
John Dewey	45	44%
Kurt Hahn	23	22%
Lev Vygotsky	23	22%
David Kolb	18	17%
Kurt Lewin	7	7%
Marina Ewald	5	5%
Cathy Jordan	1	1%

Note: N = 103; Meyer (2020) provides additional open entry choices.

Satisfaction with assistance by current knowledge base: Respondents were asked two questions about their satisfaction with the current resource base. The first question explored their general level of satisfaction (Table 6), with most respondents reporting feeling well-neutrally assisted by the current resources and few (8%) feeling poorly or unassisted.

Table 6

Respondent level of agreement about specific resources influencing their knowledge

	Well assisted	Adequately Assisted	Neutrally Assisted	Poorly Assisted	Unassisted	M (SD)
# Respondents (%)	16 (16%)	49 (48%)	30 (29%)	5 (5%)	3 (3%)	2.32 (.89)

Note: N = 103

The second question explored their satisfaction with specific resources (books, conferences, internet resources, teacher education publications, research verifying what works, and professional development workshops) for advancing their understanding of nature-based experiential education (Table 7).

The exploration about satisfaction with specific resources did not reveal strong tendencies. Most responses were "neutral" except for internet resources (53), which were "satisfied."

Table 7

Experts who have influenced respondent's understanding

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	M (SD)
Books	**9 (8.8%)**	**39 (38.2%)**	**44 (43.1%)**	**9 (8.8%)**	**1 (1%)**	**2.55 (.81)**
Professional Conferences	**6 (5.9%)**	**29 (28.4%)**	**47 (46.1%)**	**18 (17.7%)**	**2 (2.0%)**	**2.81(.86)**
Internet Resources	**12 (11.8%)**	**53 (52.0%)**	**24 (23.5%)**	**11 (10.8%)**	**2 (2.0%)**	**2.39 (.90)**
Teacher Education Publications*	**2 (2.0%)**	**21 (20.8%)**	**51 (50.5%)**	**24 (23.8%)**	**3 (3.0%)**	**3.0 (.80)**
Research Verifying What Works	**5 (4.9%)**	**32 (31.4%)**	**42 (41.2%)**	**20 (19.6%)**	**3 (2.9%)**	**2.84 (.89)**
Professional Development Workshops**	**9 (9%)**	**24 (24%)**	**43 (43%)**	**23 (23%)**	**1 (1%)**	**2.8 (.92)**

Note. N = 102; *N = 101, **N = 100



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