

ADVENTURE LEARNING

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Synonyms

None.

Definition

Adventure Learning is an approach used to design online and hybrid education that provides students with opportunities to investigate and experience authentic topics within collaborative learning environments.

Adventure Learning environments and opportunities can take one of two forms:

- (a) A team of individuals goes on an exploratory expedition of a topic of interest. The expedition is adventure-based and occurs outdoors, at a location that allows meaningful investigation of the topic of interest. For example, to explore a community's flora, a team could kayak the length of a local river to investigate local plants. The team can then share media from the trail, along with findings and observations on an online learning environment. At the same time, instructors and learners study the topic via an inquiry-based curriculum and through the online learning environment. The learners interact with the explorers and with other experts who provide input and insight on the learners' investigations. The data from the trail and the opportunities for collaboration/interaction are synchronized with the learning activities that occur in the classroom.
- (b) Teams of instructors and learners go on an exploratory expedition of a topic of interest. The expedition is adventure-based and occurs outdoors, at a location that allows meaningful investigation of the topic of interest. For example, to investigate social inequality, the team may visit a city's downtown area to collect authentic data (e.g., photographs). The team's observations, data, and findings are then shared on an online learning environment. The topic is studied with the support of an inquiry-based curriculum and with the support of other individuals who may contribute knowledge on the topic. For instance, experts may be invited to a videoconference to answer student questions. At the same time, instructors and learners in other classrooms can study the same topic and collaborate with others on the same online learning environment. These classroom can (a) conduct their own local exploration of the issue, share their findings/observations, and use the findings/data/observations from other classes, or (b) use the authentic findings/data/observations provided by other classes.

The design of Adventure Learning environments is grounded on the following principles (Doering, 2006, The Learning Technologies Collaborative, 2010):

- A researched curriculum that is inquiry-based
- Opportunities for collaboration and interaction between learners, instructors, and experts
- Use of the Internet to facilitate the learning experience, including the delivery of the curriculum, delivery of the media, and interaction between the individuals partaking in the experience
- Timely delivery of media and text from the field to enhance the curriculum

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- Synchronized learning opportunities
- The provision of pedagogical guidelines to guide curricular and online learning environment use for the instructor to effectively implement an Adventure Learning project
- Adventure-based education to elicit excitement as a result of the risk, danger, uncertainty, and hazard inherent in the adventure.
- Authentic narrative. The learning experience is based on an authentic story/narrative that (a) unifies the expedition, curriculum, student activities, media, and learning experience under a common purpose and theme, and (b) serves to encourage creativity and enjoyable learning experiences.
- Identification of a location and issue to explore (including investigation of the contextual factors surrounding the location and issue).

Theoretical Background

Adventure Learning is rooted in the socio-constructivist school of thought. In this perspective, individuals learn in social settings, through their interactions, collaboration, and negotiation of meaning and understanding with each other. Within this theory, learning becomes a negotiated process, and the roles of learners and instructors shift. Specifically, learners are seen as being active and legitimate participants, with the ability to make valuable contributions to the learning process. Over time, as learners gain greater and more diverse knowledge and understanding, they also become able to assist and scaffold their peers. In turn, instructors are seen as guides, facilitators, supporters, aggregators, and connectors.

Adventure Learning embraces this concept of learning within a technology-rich context. In Adventure Learning environments, learners collaboratively investigate real-world issues and negotiate solutions to posed problems, contribute their knowledge and understanding of the studied issues, and support each other in this process. Instructors and other experts scaffold student inquiry and assist learners in their investigation of the topic.

Finally, Adventure Learning is further informed by four theoretical constructs, summarized below, but also cross-referenced within this volume (see section entitled Cross-References):

- **Experiential learning.** In Adventure Learning projects, learners are involved in the experience through observation of and participation in the expedition, reflection, engagement with real data (e.g., videos posted on the online learning environment), and analysis. These activities help learners create knowledge from their experience.
- **Inquiry-based learning.** Adventure Learning curricula and experiences are grounded in inquiry where learners seek answers to their own questions, formulate hypotheses, design investigations to test their hypotheses, and evaluate the results of their investigations. Evaluation in Adventure Learning projects occurs within collaborative settings where learners, instructors, and other experts discuss and reflect on findings.
- **Authentic learning.** Adventure Learning experiences focus on a diverse set of authentic (or real-world) processes, data, and experiences. These range from engagement with real-world issues that are complex (e.g., studying socio-scientific issues of global concern such as environmental degradation), to using real-world data (e.g., snow samples). Within these investigations learners enact practices that are also authentic and include: interacting and collaborating with others, engaging with multiple perspectives, and reaching diverse solutions to problems that do not encompass single solutions.
- **Open-Ended Learning Environments.** Adventure Learning environments are instances of Open-Ended Learning Environments. These are online environments that support individual learner participation, flexibility, and control. Open-Ended Learning environments are student-centered in

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that they do not impose a uniform and specific learning sequence, and do not focus on specific content/goals (Hannafin, Hall, Land, & Hill, 1994).

Important Scientific Research and Open Questions

Adventure Learning is a relatively new development in the field, as the first report delineating the approach described above appeared in 2006 (Doering, 2006). Since then, researchers have sought to operationalize the Adventure Learning construct (e.g., The Learning Technologies Collaborative, 2010), while also synthesizing empirical research on the topic so as to push the field forward (Veletsianos & Kleanthous, 2009). It is important to note that since Adventure Learning is an approach for the design of online and hybrid education, research on the topic is conducted within the context of ecologically valid learning environments designed for specific purposes. Results from these investigations have indicated that the approach has fostered student interest, motivation, and engagement (e.g., Doering & Veletsianos, 2008a), has been flexible enough to enable multi-faceted adoption within classrooms (ibid), and has enabled learners to engage in inquiry-based practices that have been memorable and captivating (e.g., learners in a study conducted by Doering & Veletsianos, 2008b, reported that they discussed their learning with their parents and parents asked teachers to continue using the Adventure Learning projects in their teaching). These results have also been observed in a long-term study of the approach (Veletsianos & Doering, 2010). The long-term investigation of the approach (ibid) also noted that the social and participatory nature of the learning experience enabled students to develop a sense of community, while the unfolding narrative of the approach assisted in mediating learning and engagement.

While the Adventure Learning (AL) approach provides much promise for the design and development of powerful learning environments and experiences, there is also much scope for scholarly contributions to enhance the AL construct. The following areas may yield important insights into the Adventure Learning approach and need to be addressed by future research:

- To what extent is the Adventure Learning model applicable to higher education, out-of-school settings, and diverse content areas? Most research to date has been conducted within the context of socio-scientific investigations in K-12 schools. Research on environments and implementations outside of K-12 may yield valuable insight with regards to the effectiveness, complexities, and adaptability of the approach in diverse settings.
- How can individual instructors effectively design and develop their own Adventure Learning projects, how can they be supported, and what are the outcomes of such projects? To date, most of the research/design contributions on the topic are concerned with Adventure Learning environments developed by experts and used by teachers. What happens when teachers become designers of Adventure Learning projects?
- What are the learning outcomes of Adventure Learning projects? While the effectiveness of the approach has been demonstrated in terms of student interest, excitement, and engagement, and teachers have reported that they find the Adventure Learning approach beneficial for student learning, current literature lacks empirical results on learning outcomes.
- What does learner participation and interaction look like in Adventure Learning environments? Prior research has highlighted the collaborative nature of Adventure Learning projects, but no research reports have been published on the nature and extent of learner participation in these online learning environments.

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Cross-References

- Authenticity in learning activities and settings
- Experiential learning theory
- Informal learning
- Inquiry learning
- Online learning
- Open learning environments
- Socio-constructivist models of learning
- Technology-enhanced learning environments

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