

Informal Learning

Justin R. Evans, Matt Karlsven, & Spencer B.
Perry

Much of the learning that we experience as human beings occurs outside the realms of formal education and is classified as informal learning. Most of what we learn from birth about speech, cultural norms, spacial awareness, and social cues comes from personal experience and a personal creation of knowledge. Some scholars believe that at least 80% of learning in the workplace is classified as informal (Watkins, Marsick, & Fernández de Álava, 2014). Knowing how all-encompassing informal learning is, we believe that it is important for both practitioners and researchers to gain a better understanding of what informal learning is and how it works. In this article, we give a description of some of the key characteristics and components of informal learning and compare and contrast them to the characteristics and components of formal learning. We conclude by addressing some of the challenges and techniques of evaluating and measuring informal learning.

Definitions of Informal Learning

Various definitions of informal learning exist in the research literature, often overlapping with definitions of other learning

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terms (Manuti, Pastore, Scardigno, Giancaspro, & Morciano, 2015). The Organization for Economic Cooperation and Development (OECD) defines informal learning as not organized in any way (n.d.). Richardson (2004) points out that informal learning does not generally lead to formal qualification, and Conlon (2004) points out that this type of learning occurs through incidental, everyday experience. Some have suggested that informal learning in the workplace is any unstructured learning that occurs in order to become capable of performing professional duties (Merriam, Caffarella, & Baumgartner 2007; Yanchar & Hawkley, 2014). We will present aspects of learning that we believe make a learning experience informal. We will also discuss the nature of defining a learning experience as either formal or informal and establish a framework for classifying learning experiences as such.

Spectrum of Learning. Many theorists and designers carry a categorical view of informal learning, defining it simply as learning that is not formal (Colley, Hodkinson, & Malcolm, 2002; Manuti et al., 2015). Eraut (2010), however, describes informal learning not as a category of learning but rather as one end of a spectrum of learning, with formal learning being at the other end of the spectrum. Others support this view that informal learning is related to formal learning by a gradient of learning formality (Sefton-Green, 2004; Straka, 2004). We also support the view that the formality of a learning experience exists as a spectrum rather than as a dichotomy of formal or informal. We will discuss this view in greater detail in later sections.

Aspects of Learning

While learning can be described in many ways, we will examine what we consider to be four key aspects of learning that help us to identify the degree of formality in a learning experience. These are adopted from Malcolm, Hodkinson, & Colley (2003) and include learning process, location and setting, purpose of learning, and content. In analyzing the formality of a learning experience, we suggest analyzing each of these key aspects separately and then considering the experience as a whole (see Figure 1). In the following sections we will discuss evaluation of the formality of each of the four previously mentioned aspects of learning.

Learning process. The formality of a learning process describes the amount of structure that makes up the learning experience. In the most formal of learning experiences, an individual or group external to the learner (i.e., a teacher) presents learning objectives, a plan for achieving objectives, and assessment strategies to learners (Eraut, 2000; Folkestad, 2006). This process is reflected in most public K-12 education settings as well as most higher-education settings where teachers and students fulfill their traditional roles of giver and receiver of information. The process of learning is sometimes formal in workplace settings as well. When an employee completes a corporate-mandated harassment training, for instance, they are experiencing a learning process that is formal, because the objectives, curriculum, and assessment are highly structured and given to the employee by their employer.

A learning process that is informal is one in which the learning occurs with a low level of structure (Malcolm et al. 2003). An

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example of a less formal learning process might be a secondary school student who meets with their teacher to get help with a math problem outside of regular school hours. Another example of an informal learning process might be a professional employee who seeks out help with a project by watching an online video tutorial. In both cases the learning occurred in a situation in which the formal process of teacher to student knowledge transfer is less pronounced.

Location and setting. Learning within a school or college is usually considered formal while learning done outside of these situations is considered informal (Malcolm et al. 2003). Marsick and Watkins (2001) as well as Manuti et al. (2015) describe informal learning as being held outside of a formal classroom context, including both intentional and incidental learning. Most work situations resemble formal learning settings in the sense that workers gather at an established location to accomplish their work in a highly structured setting. Billett (2002) argued that work settings should be described as informal even though they maintain a high degree of structure. Manuti et al. (2015) suggest that informal learning in the workplace is integrated with daily routines, which implies that informal learning does not require a change from the location or setting of one's usual day-to-day routines.

Purpose of learning. Malcolm, et al. (2003) identify two categories in which the purpose of a learning experience can be evaluated. These are an evaluation of learner intent and an evaluation of politics surrounding the learning experience. Learner intent describes what the goals of learning are while politics describes the source of the learning goals.

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Learner intent. Manuti et al. (2015) described informal learning as being influenced by chance and not highly conscious. Others suggest that intentionality and consciousness of learning may or may not be present depending on the type of informal learning that is being done (Merriam et al. 2007). For example, two forms of informal learning, self-directed learning and socialization, could be different in terms of intentionality and consciousness of learning. Self-directed learning could include conscious and intentional learning, while tacit learning or socialization might have no intentional or conscious learning. For example, someone making a goal to learn Spanish is likely intentionally and consciously choosing activities and experiences in order to improve in speaking Spanish (making flashcards, participating in conversations in Spanish, watching television in Spanish, etc.), and this resembles self-directed learning.

Tacit learning might happen when a person moves in with someone from another culture and eventually starts eating similar food as their new roommate or participating in similar activities (like watching a particular sports team) without doing so on purpose or even realizing that a change is happening. With incidental learning, another form of informal learning, a learner might become conscious of unexpected learning that is taking place, but there was no intention of it, as the real intent was to accomplish some other goal or object. For example, the person going to a shoe store might have no intention to do anything but buy a pair of running shoes but then comes to learn that there are many different kinds of shoes that offer different amounts of traction and ankle support depending on the type of activity for which the shoe is designed. That person might also unintentionally come to learn the life story of the

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salesperson assisting them, which would also be considered incidental learning.

Malcolm et al. (2003) describe formality of learner intent as a situation in which the learner has a specific goal in mind while informality of learner intent includes situations in which the learning is incidental to the learning goals. For example, an individual attempting to repair a vehicle may seek a video tutorial to complete the repair. This represents formality of learner intent because the tutorial was sought out with a specific purpose. If the same individual happens to discover a trick for removing an overtightened bolt in the process, that experience is more informal, because the learning was not part of the original intended learning outcome.

Political. The political aspect of the purpose of learning refers to whose purposes lie behind the learning goals and curriculum (Malcolm et al., 2003). In formal learning experiences, an instructor might give direction to learn a specific piece of content. This is opposite of previously mentioned self-directed learning where the learner maintains control of learning goals and is able to initiate the learning experience (Livingstone & Ontario Institute for Studies in Education, 2001).

Others have described the political aspect of informal learning as situations that could include “implicit, unintended, opportunistic and unstructured learning and the absence of a teacher” (Eraut, 2010, p. 250). However, while a formal teacher or facilitator might be absent in informal learning, a learner could seek out others with expertise or insight into a particular topic (Manuti et al., 2015). Entrepreneurs and small-business owners may seek to further their education and personal

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growth by seeking out coaches or mentoring communities which support and encourage informal learning. Business owners and managers are more likely to participate in informal learning through discussions with suppliers and customers than to participate in formal training (Halliday-Wynes & Beddie, 2009).

Content. Content refers to knowledge gained by the learner. Malcolm, et al. (2003) state that learning can be highly informal or highly formal depending on its intent for the learner. The acquisition of informal content generally occurs when the learning experience is exploratory in nature, allowing the learner to take an active role in the creation of knowledge. These experiences include but are not limited to exploratory field trips, workplace competence, everyday practices, developing sound arguments, kindergarten level math/science/arts, and PHD level math/science/arts.

The acquisition of formal content refers to what is learned from either expert knowledge, understanding, and practices, or propositional or vertical knowledge. Efforts from governments to standardize content learned in the education system is an example of an attempt to formalize learning. Propositional knowledge is often exemplified in religions that pass down strict doctrines, customs, and truths. Vertical knowledge refers to data gathered about specific industries: their operations, actors, issues, and trends. Examples of these specific industries include healthcare, education, government, insurance, and automotive (Quayle, 2012).

Determining Formality

The framework above can be viewed as a tool for determining the formality of a learning experience. Each aspect of learning is evaluated separately and then considered as a whole.

Consider the learning experience of a home mechanic who is attempting to replace a part inside of a car's engine but does not know how to accomplish the task. In order to learn how, the mechanic finds a video online made by a YouTuber who specializes in auto mechanic tutorials. The home mechanic watches this video in their garage while working on the car, completes all of the steps in the tutorial, and successfully repairs the car.

We are interested in determining the formality of a learning experience like that of our home mechanic. The learning process is rather informal. The instructor (the YouTuber) is not present, and the mechanic may pause and rewind the video multiple times. The mechanic may even pause for meals or sleep depending on the complexity of the repair.

The location and setting of the home mechanic's learning experience is also rather informal. The learning takes place at home in the garage, but the formality of the experience may increase if the home mechanic were to take a part to an auto shop to receive help from a professional mechanic.

The purpose of the home mechanic's learning experience is very formal. This is the case for both learner intent and the politics of the learning experience. The intent of the home mechanic is very specific. The mechanic wants to replace the engine part so they attempt to learn how. The political

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component of his purpose, however, is informal. No entity instructed the mechanic to learn how to make the repair but rather the learning was initiated by mechanic of his own free will. The significance of the apparent opposition of learner intent and politics is somewhat objective. They may cancel each other out or maintain the degree of formality of one component if that component is much more significant than the other component.

The content of the home mechanic's learning experience is rather formal. The process for replacing specific engine parts is generally established. The instructions in the YouTube video would be quite similar to those in a repair manual.

After analyzing all four aspects of learning formality for the home mechanic, we found that we easily lost track of the formality assignments we made. To resolve this difficulty, we have established a graphical representation of this framework. Each aspect of learning has a corresponding horizontal line representing a spectrum of learning from completely formal to completely informal. Each line has a corresponding marker that can be moved left and right along the spectrum.

Figure 1 contains a summary of our analysis of the home mechanic's learning experience. The placement of the markers on the spectrum is rather subjective as different evaluators would place the markers in different locations. Readers should notice that Figure 1 suggests that the overall formality of the mechanic's learning experience is neutral, neither formal nor informal. Many experiences are like this in that the formality of the experience as a whole is neither completely formal nor informal, but rather the formality of the experience falls on a

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spectrum of formality.

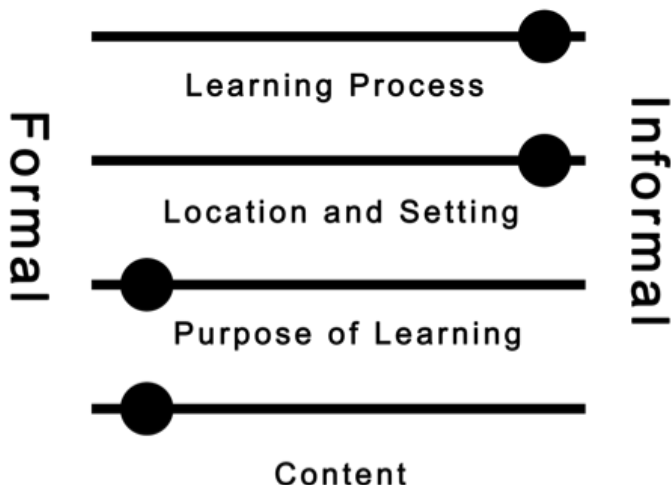


Figure 1. Analysis of the formality of a home mechanic's learning experience. The overall formality of the learning is somewhat neutral even though some aspects of learning are very formal or informal.

Evaluating and Accrediting Informal Learning

Of the articles we read on evaluating informal learning, most pointed out that evaluating this type of learning is extremely difficult (Carliner, 2012; Cuinen, et al. 2015; Falk & Dierking, 2000). Falk and Dierking (2000) argued that the difficulty in

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evaluating informal learning is not due to the absence of evidence but instead that informal education institutions have asked the wrong questions. They suggest evaluating informal learning should be viewed as a method of improving the process of learning and the ability of the institution to teach. Carliner (2012) and Savernye (2013) suggest using a multiple-method approach to evaluating informal learning that includes a combination of tests and quizzes, concept mapping, recognized acquired competencies, classroom assessment, self and peer reviews, embedded assessment, performance assessment, reflective writing and media creation, rubrics, interviews, and observations. We suggest that systems such as xAPI, commonly referred to as tin-can API, have great potential for collecting data from online informal learning experiences (Brandon, 2012).

We suggest a competency based approach to learning, supplemented by low-stakes assessments and self reporting, as a way to measure and account for informal learning in the workplace and at school. Companies and schools that follow a competency-based approach ask employees and students to master pre-defined competencies (skills). Though the competencies are pre-determined (formal), the learner is given freedom to master these competencies in their own way, at their own best pace, and sometimes wherever they want (informal). Learners receive acknowledgement for their work and are able to move on to more difficult competencies only when they have mastered the lower-level competencies (Cheetham, G. & Chivers, G., 2005)

Conclusion

In this article, we have given a brief overview of informal learning. Informal learning was contrasted with formal learning on a number of dimensions, and examples have been given to further illustrate the differences between more formal and more informal aspects of learning experiences. We then discussed some of the aspects of evaluating informal learning, including some of the challenges that are encountered specifically when attempting to evaluate informal learning experiences.

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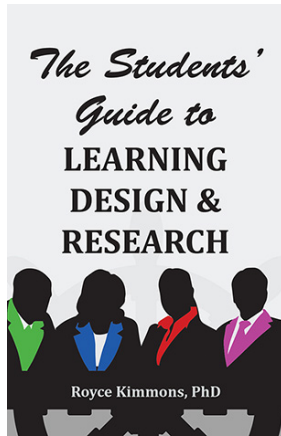
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