Meeting Educational Challenges of Pre- and Post-COVID-19 Conditions Through Self-Directed Learning: Considering the Contextual Quality of Educational Experience Necessary

Abstract

Purpose: Fostering the skills necessary for self-directed learning competence could be considered the most essential goal of formal education, especially due to uncertainty and changing conditions – exampled by the COVID-19 pandemic. Importantly, self-directed learning competence can afford a person the ability to adapt to changing social contextual conditions: thus, facilitate personal growth and development – even in the face of volatile and rapidly changing social contextual conditions. **Design/methodology/approach**: To date research has failed to comprehensively identify exactly what type of educational experience is necessary for such an adaptive meaning-making process during self-directed learning. The present theoretical paper attempts to redress this concern. **Findings:** Highly contextualized educational experience is necessary to enable contextual-specific, adaptable, meaning-making. Two constituents of highly contextualized educational experience are proposed: (1) contextual-specific information available during the educational experience, and (2) contextual-specific meaning schemes resultant from the educational process. **Originality/value:** This novel work presents an important argument that education should encourage learners to construct knowledge that is adaptable and transferable to their context, rather than automatized knowledge that is not adaptable or transferable. This is a key concern for persons who face rapidly changing social contextual conditions and therefore should be given consideration in both the design of education and in further research on self-directed learning. Like a vaccine in an arm provides a certain protection against COVID-19, fostering our populations' SDL competence is fundamental for affording persons with an ability to meet the demands of our rapidly changing world.

Keywords: Self-directed learning (SDL); adaptivity; contextualized experience; teaching and learning; constructivism; experiential learning

1. Introduction

This present paper does not concern all forms of learning, but rather focuses on one form of learning that can afford persons the ability to adapt in order to meet the demands of their changing social contextual conditions: self-directed learning (SDL). Especially during and beyond the time of COVID-19, it seems very important to take one step back and consider the point that SDL competence is fundamental for adults living in our complex and changeable world (e.g. Ma *et al.*, 2018; Kranzow and Hyland, 2016). SDL competence is defined as "the ability to pursue self-directed learning with success and efficiency: to proficiently direct one's own learning means and objectives in order to meet definable personal goals" (Morris, 2019b, p. 302). Fostering the skills necessary for SDL competence could be considered the most essential goal of formal education (e.g. Abele and Wiese, 2008; Morris, 2018, 2019a, b, e, 2020). However, alarmingly, empirical studies in differential educational contexts show that this possibility is commonly hugely unrealized (e.g. Arnold, 2015; Morris, 2018, Morris & Rohs, 2021).

In the adult learning field, it has been highlighted for decades that SDL competence is fundamental for preparing adults for their working life – by affording persons the ability to adapt to changing social contextual conditions (cf. Boyer *et al.*, 2014). Indeed, and importantly, an ability to adapt arguably becomes especially significant in times of sudden change of social contextual conditions that demand novel responses – exampled by the current COVID-19 pandemic (Morris & König, 2020). Adaptivity has been defined as "the ability to employ multiple ways to succeed and the capacity to move seamlessly among them" (Hoffman *et al.*, 2014, pp. 51-52). It is perhaps not surprising therefore that

adaptivity has been labelled as the conditio sine qua non of professional expertise (Ward *et al.*, 2018) and has been directly correlated to long-term career success (Seibert *et al.*, 2001).

SDL competence may afford a person a number of advantages, including: (a) enabling a proactive process of remaining up-to-date with knowledge and skills throughout one's life course (Dunlap and Grabinger, 2003; Morrison and Premkumar, 2014) (b) affording a person a heightened ability to adapt to change in social contextual conditions (Boyer *et al.*, 2014; Helterbran, 2017) (c) providing a certain protection against long-term unemployment (Barnes *et al.*, 2016) (d) facilitating emancipation from oppression (Bagnall and Hodge, 2018; Freire, 1970; Mezirow, 1989), and/or (e) permitting progression toward self-actualization (Arnold, 2017; Maslow, 1943).

SDL positions with humanistic philosophy, where learning is regarded as an apparatus for personal growth and development (Morris, 2019e; Elias and Merriam, 1995; Groen and Kawalilak, 2014). Thus, empowering a person's growth potential is a salient feature of SDL competence. In sum therefore, SDL competence is especially fundamental and highly advantageous for adults living in contexts where there is rapid change in social contextual conditions – exampled in the context of the COVID-19 pandemic – where SDL competence affords a person with an ability to adapt to changing conditions.

2. The construct of self-directed learning

Theoretical and empirical studies on SDL have considered various dimensions of the SDL construct (Morris, 2018, 2019d, e, 2020; Beckers *et al.*, 2016; Brookfield, 1986; Brockett

and Hiemstra, 1991; Candy, 1991; Cross, 1981; Garrison, 1992, 1997; Gibbons, 2002; Grow, 1991; O'Shea, 2003; Merriam *et al.*, 2020; Mocker and Spear, 1982; Sawatsky *et al.*, 2017; Song and Hill, 2007). These SDL conceptualizations commonly emphasise one or more of three dimensions: (1) the learning process (2) personality characteristics of the learner, and (3) factors within the learner's context. Some conceptualizations have considered a fourth dimension: the cognitive aspect, which concerns responsibility for, and the process of, meaning-making (e.g. Morris, 2019a, d; Brockett and Hiemstra, 1991; Garrison, 1992, 1997; Tan, 2017).

Specifically, "responsibility" in terms of learning refers to the accountability for the construction of meaning with the intent to meet one's learning goals. Self-regulation is a particularly important part of this (cf. Jones, 2017; Pintrich, 2004; Zimmerman, 1990). Responsibility therefore concerns the meaning-making process, which refers to how meaning of experience is construed (Dewey, 1938/1963; Kolb, 1984; Mezirow, 1981, 1991; Piaget, 1964).

Importantly, to the knowledge of the present author, to date research in the field of SDL has failed to comprehensively identify exactly what type of educational experience is necessary to enable adaptive meaning-making. Therefore, the purpose of the present paper is to theoretically examine the contextual qualities of educational experience that are necessary to enable adaptive, or *contextual specific*, meaning-making through the SDL process. Specifically, it is highlighted in the present paper that learners should learn how to construct knowledge that is adaptable and transferable to their context, rather than constructing automatized knowledge that is not adaptable or transferable. The following section presents a theoretical discussion, or rather perhaps a foundation for further

discussion and empirical investigation, on the importance of considering the contextual quality of educational experience to enable contextual-specific, adaptable, meaning-making.

3. Considering the contextual quality of educational experience

In this section, a novel theoretical argument is put forward that centers on the idea that highly contextualized educational experience is necessary to enable contextual-specific, adaptable, meaning-making. It is proposed that this should be an important consideration for further theoretical and empirical studies that focus on SDL, but also that the theoretical ideas presented may be an important consideration in the process of designing education that incorporates other learning forms.

It is proposed that contextualized educational experience is the product of the contextual-specific information available and the contextual-specific meaning schemes formed (the maximum values being 1 = whole, cf. Figure 1). In this respect, meaning schemes constitute "specific knowledge, beliefs, value judgements, and feelings" (Mezirow, 1991, p. 5) that determine our unique frames of reference, or meaning perspectives that govern our understanding of reality.

Figure 1 shows that the potential for a highly contextualized educational experience is limited when either contextual-specific information available is incomplete or when a low portion of contextual-specific meaning schemes result from the educational experience. Thus, in theory, in order to gain a highly contextualized educational experience both the contextual-specific information available and the contextual-specific meaning schemes

resultant need to be maximized. These two elements are discussed in further detail in the following sections, including that highly contextualized educational experiences are important to allow adaptivity and transferability of knowledge.

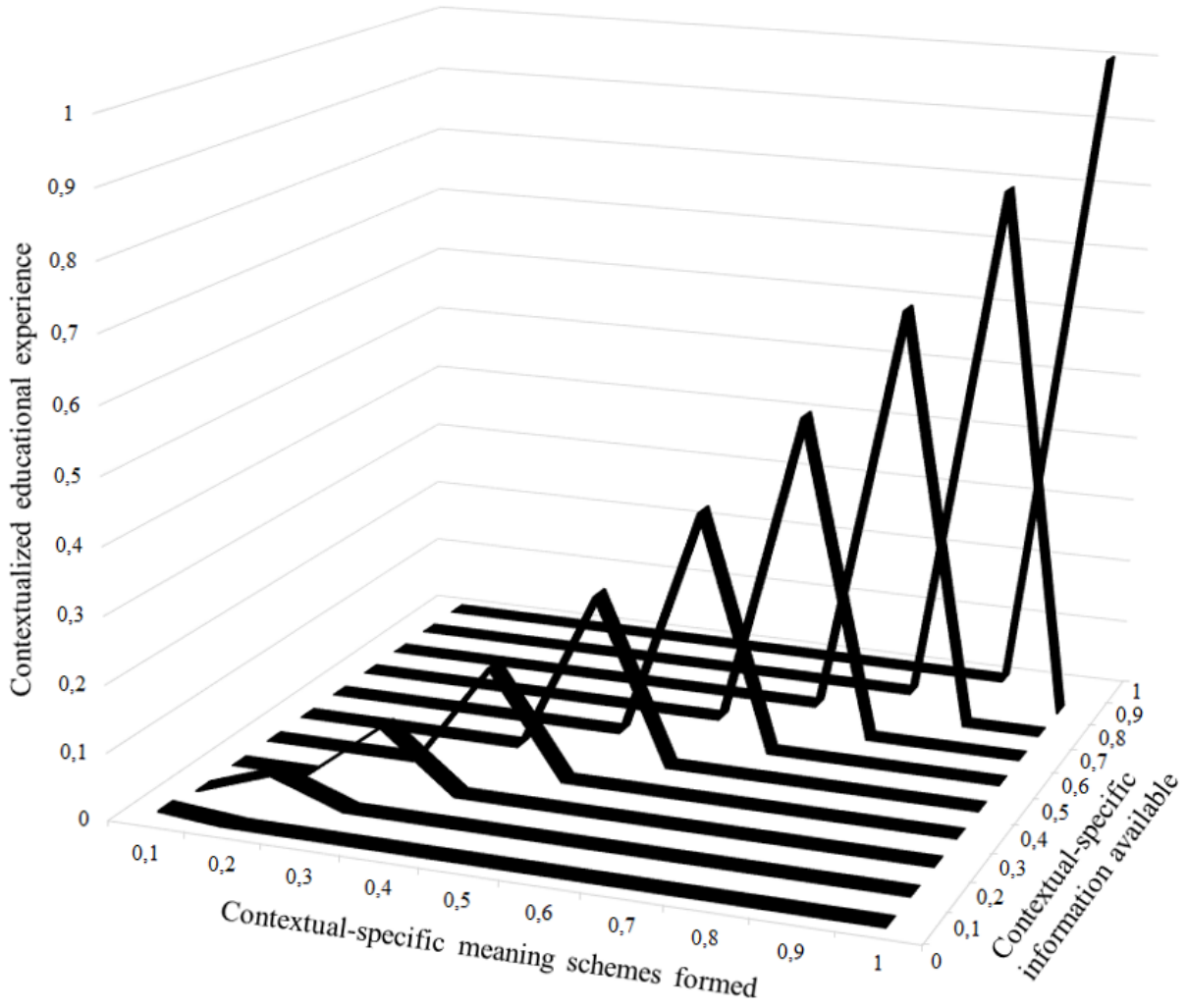

Figure 1. Constituents of a contextualized educational experience

3.1. Experience in which low contextual-specific information is available

An important aspect of lifelong-learning, especially adult learning, is that the majority of learning is life-centred: it is specific to the context of the learner (e.g. Tough, 1971). Although the nature of adult learning may have changed significantly since Tough's seminal paper, the adult learning projects described by Tough highlighted that adult learning is, by its very nature, highly contextualized.

Put simply, the majority of learning through the life-course is purposeful: learning that is connected to one's life (cf. Holt, 1999). Specifically, learning in adulthood commonly represents a pragmatic process: where persons engage in a learning process in order to solve context specific problems – where grasping a holistic understanding (i.e. necessitating full contextual information) of what the problem is, exactly, permits a SDL process of finding a fitting solution (cf. Morris, 2020).

However, on the contrary, it seems important to reflect on the point that formal educational processes can often involve a decontextualized learning process in which educators customarily control the planning, undertaking, and reviewing aspects of the learning process (Arnold, 2015; Dewey, 1938/1963; Freire, 1970; Knowles, 1975, 1980; Rogers, 1969). In this regard, in a series of lectures in 1889, Dewey (2010) highlighted the point that often, in traditional teacher-directed educational classrooms, facts are taught with their contextual information removed.

This goes against a constructivist view of learning, in which learning is viewed as an individual, interpretive, and active process of meaning-making – where, on the contrary, contextual-specific information is of primary importance (Merriam *et al.*, 2020). Rather,

in such traditional learning situations – as described by Dewey in 1889 (2010) – the contextual-specific information available would be low (refer to Figure 1). Importantly, when an educational experience has low contextual-specific information available a key consequence is that the potential for the experience to represent a contextualized educational experience is limited (cf. Figure 1).

3.2. Experience in which high contextual-specific information is available

On the contrary, educational experience that has high contextual-specific information available is potentially underwritten by and promotes a constructivist learning process; stimulating judgemental and critical thinking (Dewey, 1916/2013; Garrison, 1997). In considering the design of education in this regard, Jonassen (1999) identified that a fundamental difference of a constructivist learning environment is that the learning process is driven by "the question or issue, the case, the problem, or the project that learners attempt to solve or resolve" (p. 218)… and… "nearly every conception of constructivist learning recommends engaging learners in solving authentic problems" (p. 221).

In this respect, real-world based educational activities may maximize the contextual-specific information available (refer to Figure 1), if set up to encompass the contextual-specific information that could be obtained through all sensory organs that would be available in a naturalistic real-world setting (cf. Kolb and Kolb, 2013). However, it could be argued, for example, that the availability of such conditions within formal education during the COVID-19 pandemic might be very difficult to achieve.

Indeed, a recent, but pre-COVID-19 pandemic, scoping review of empirical studies exampled the types of learning activities found in formal educational settings that might

foster the skills necessary for SDL competence (Morris & Rohs, 2021). All of the taxonomy of learning activities discussed (e.g. workplace simulations, task-based learning, maker learning, problem-based learning, and experimental-based learning) were highly contextualized, or "situated"; many of which requiring "hands-on" participation. In these learning activities, learning represented a process centered on solving or resolving real world-based questions, issues, cases, problems, or projects – representing a learning experience in which high contextual-specific information was available to learners.

Furthermore, experiential education, for instance, emphasizes the need for learning in natural environments. In experiential education, learners are placed physically, often in collaboration with others, in rich contextual learning environments that represent in the moment uncontrived experience (e.g. Morris, 2019c; Fűz, 2018; Karoff *et al.*, 2017; Munge *et al.*, 2018). In the process, educators engage purposefully with learners, but learners are fully or partly responsible for the learning process (Hou and Pereira, 2017). Jordan and colleagues (2018) explain that students are involved socially, intellectually, and physically, which supports the embodied nature of the learning experience. Empirical studies highlight "learning by doing" as a founding concept of experiential learning (e.g. Dorfsman and Horenczyk, 2017; Grimwood *et al.*, 2017; Munge *et al.*, 2018; and Morris, 2019c for review). In addition, to enable high contextual-specific information available to learners, appreciation of the cultural-historical aspects of learning may be of particular educational importance, especially where the learning problem is deeply culturally or historically bound (cf. Dorfsman and Horenczyk, 2017).

It is proposed in the present paper that enabling high contextual-specific information available during the educational process is one of the key constituents of enabling a highly

contextualized educational experience (cf. Figure 1). Moreover, a second constituent of a contextualized educational experience – the formation of contextual-specific meaning schemes – should be considered: that is, whether, and the extent to which, contextual-specific meaning schemes are assimilated.

3.3. Low portion of contextual-specific meaning schemes assimilated

Consideration of whether contextual-specific meaning schemes are formed during the learning process concerns the nature of the cognitive learning process when learners assume responsibility for constructing meaning. It is possible, for instance, that learning involves a process in which meaning schemes are uncritically assimilated then validated. In such situations the learner may pay no or little attention toward the contextual information during the learning process.

In this regard, Langer (2017) conducted a series of experimental studies with North American University students that demonstrated that when students do not pay specific attention to the conditions of context, students learn solutions to problems, but then have the tendency to automatically apply these solutions in other contexts in which the solutions are not quite fitting. She referred to the problem of *teaching certainty* where educators place "a premium on absolute answers" (p. xxiii) – constructing automatized knowledge that is not adaptable or transferable.

3.4. High portion of contextual-specific meaning schemes assimilated

On returning to the point that a constructivist learning environment involves a learning process that is driven by a specified authentic question, issue, case, problem, or project in

context, then the learning process becomes purposeful and, perhaps, life-centered. In this process, thinking critically and judgementally seems essential (Brookfield, 2001; Collins *et al.*, 2016; Mezirow, 1981). Thinking critically demands that learners pay particular attention to the conditions of the problem context in order to create fitting solutions. In this respect, it seems essential that learners maintain attention toward the specific contextual conditions of the educational experience.

Learners may benefit from maintaining cognitive openness toward the possibility that contextual conditions may change over time and place and therefore that the most fitting solution may be individual to the defined problem in the specified context. Indeed, cognitive openness was historically positioned as a key characteristic of highly self-directed learners (cf. Oddi, 1986). In this regard, empirical studies employing questionnaire measurements commonly identify a strong correlation between learner self-direction and the personality trait of openness (e.g. Kirwan *et al.*, 2010, 2014; Lounsbury *et al.*, 2009; Major *et al.*, 2006).

In this respect, learners may benefit from being "confident with uncertainty" (cf. Langer, 2017). On this point, Scott (2018) discussed that learners could take a stance that all knowledge is provisional: a Socratic concept that learners may know that they do not know (the solution yet, before they have fully investigated the present problem or solution in context) and that solutions to problems in a real-world context are context specific.

4. Conclusion

During and beyond the time of COVID-19, being able to adapt to changing social contextual conditions seems imperative. It is argued in this theoretical paper that SDL is a fundamental competence that empowers adults to deal with learning in a world that is becoming ever more complex and changeable. In this respect, formal educational settings inevitably present as a primary opportunity to foster SDL competence in our youth.

However, fostering the adaptivity that may accompany a process of SDL would require a highly contextualized educational experience. Two key constituents of this experience are discussed: the need for contextual-specific information available in the educational experience; and, the resultant contextual-specific meaning schemes formed. In this regard, real-world based educational activities may maximize the contextual-specific information available to the learner.

In order for an experience with a high contextual-specific information available to be converted into a highly contextualized educational experience it seems essential that learners learn to maintain attention toward the specific contextual conditions of the educational experience. Then, learners may benefit from appreciating that the fittingness of a solution to a problem is context dependent and solutions might change over time – *adaptive meaning-making*.

Indeed, on the contrary, exposure to educational experience that lacks contextual-specific information might lead to the opposite: the practice of constructing automatized knowledge that is not adaptable or transferable. In this regard, the basis of the theoretical framework

presented in this present paper could be very important for evaluating the effectiveness of education in terms of preparing persons to live in a world with rapidly changing contextual conditions – especially during the COVID-19 pandemic and beyond. Like a vaccine in an arm provides a certain protection against COVID-19, fostering our populations' SDL competence is fundamental for affording persons with an ability to meet the demands of our rapidly changing world.

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