Self-Direct to Learn, Self-Direct to Live: A Checklist to Successfully Navigate this Self-Directed Learning World

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ABSTRACT

Self-directed learning (SDL) is an active, self-initiated process wherein learners diagnose their personal learning needs, and then formulate their own goals and approaches to meet those needs. After that, they identify available and relevant resources and supports, select the learning strategies and tactics that they think will lead to success, and evaluate the various outcomes of that learning, all taking place with or without support from others. Notably, the multifaceted and complex nature of the SDL process and components combined with centuries of societal norms for instructor-centered instruction, self-directed learning can be difficult to successfully understand, foster, and maintain. In response, we have conducted a series of over a dozen studies on self-directed learning (SDL) from open, online, and distance learning environments. An overview of much of that research is provided. Based on the results of those studies, we designed a checklist for learners, instructors, instructional designers, and other educators and trainers with two dozen criteria to consider in evaluating online courses, including massive open online courses (MOOCs), for their SDL nurturance and assistance. This checklist can be used as a learner scaffold or reflection aid before enrolling in such a course or after completing one. Such a checklist can be used as a mechanism to offer advice to others about the degree of SDL offered by the online courses or open course content, as well as the overall quality of that content. In effect, an SDL checklist can also be used to help learners successfully navigate online, open, and distance education courses as well as design instruction for that to occur.

INTRODUCTION

About a decade ago, Cobb (2012) recognized that the knowledge-based economy in which we now live requires learners who can take control over their learning process. In Cobb's insightful book, *10 Ways to Become a Better Learner*, he details ten ways in which we all can be better learners resulting in enriching our lives, helping us advance within our careers, and effectively dealing with the myriad learning challenges and opportunities of this hyper-connected world. His advice includes adopting a growth mindset, managing goals, asking good questions, taking responsibility for one's learning, cultivating a learning network, and actively processing what one is currently attempting to learn.

At roughly the same time, Price (2013) argued in his book, *Open: How We'll Work, Live and Learn in the Future*, that all aspects of life were increasingly becoming open and such open forms of living would require some adjustments. Of particular importance, Price noted that learning in the future would be highly open and collaborative. For instance, it would be more socially-based than in the past as well as informal, non-linear, networked, experiential, and offered up just in time. We have seen that play out with open source software (Pan & Bonk, 2007), open educational resources, open textbooks, open documents, massive open online courses (MOOCs), and OpenCourseWare from MIT and many other institutions around the world. Clearly, as Price notes, learning during the past couple of decades has been markedly changing.

A few years prior, the first author of this paper, Bonk (2009), also pointed out that the world was becoming increasingly open for learners to learn when they want, where they want, with whom they want, and in whatever order or path that they preferred. As Bonk noted in his 2009 book, *The World is Open: How Web Technology is Revolutionizing Education*, anyone could now learn anything from anyone else at any time. In that book, Bonk documented 10 salient technology trends that were opening up that world of education; those trends or openers spelled the acronym **WE-ALL-LEARN.**

Ten Openers: (WE-ALL-LEARN)

1. **W**eb Searching in the World of E-Books
2. **E**-Learning and Blended Learning
3. **A**vailability of Open Source and Free Software
4. **L**everaged Resources and OpenCourseWare
5. **L**earning Object Repositories and Portals
6. **L**earner Participation in Open Information Communities
7. **E**lectronic Collaboration
8. **A**lternate Reality Learning
9. **R**eal-Time Mobility and Portability
10. **N**etworks of Personalized Learning

In *The World is Open* it was evident that the ways humans learn were radically expanding due to digital forms of learning. In building on the themes of that book, a few years later, Bonk (2016) detailed 30 ways in which learning was changing to increase learner engagement, learning access, and customization or personalization. These 30 ways included that learning was becoming more open, online, massive, blended, game-like, hands-on, immersive, collaborative, global, digitally rich, mobile, video-based, informal, on-demand, and self-directed. Without a doubt, the self-directed nature of learning has only intensified since then. Bonk added that any one of these developments would be potentially transformative; the fact that all 30 were occurring during one short moment in the history of humankind was exhilarating, empowering, and, perhaps for many teachers and learners, simultaneously, overwhelming and anxiety provoking. Whatever your perspective, it is difficult to deny that we now find ourselves in the "Learning Century."

As Cobb (2012), Price (2013), and Bonk (2016) each highlight, human learning is changing on many levels and in many aspects of life. What it means to learn and, in effect, be an effective learner and a contributing human being has dramatically changed during the past century. To keep up with societal competency and skill demands, the learning formats and delivery systems have become multifaceted, increasingly digital and virtual, and typically blended in some aspect. Forty or fifty years ago, the form of distance learning was correspondence, satellite, and television based. A quarter century ago, learning was increasingly becoming online and blended.

A well-known proponent of correspondence and satellite-based forms of learning and instruction was Wedemeyer at the University of Wisconsin. As Wedemeyer (1981) noted in his book, *Learning at the Back Door: Reflections on Nontraditional Learning in the Lifespan,* distance forms of learning have always relied on a large percent of learners to self-direct their own learning (Wedemeyer, 1981). Wedemeyer was a visionary. For example, back in the 1960s, he predicted a transformation in educational delivery for students in the future; especially extension students:

"[A student] would probably not 'attend' classes; rather, the opportunities and processes of learning will come to him. He will learn at home, at the office, on the job, in the factory, store, or sales room, or on the farm. Continued learning will indeed become, for many, part of the job which they are employed to perform." (Wedemeyer, 1966, p. 148-149)

Wedemeyer (1966) also noted that as a result, students would eventually become more accustomed to learning apart from formal classrooms and traditional four-walled instructional settings. In turn, those students, would become increasingly savvy with educational technologies that could support and accommodate extended periods of self-study, collaborative group learning, personalized tutorials, and independent forms of learning (Wedemeyer, 1966).

He realized that technologies were helping shape a more global educational resource support system. Wedemeyer (1966) added that "the teacher will reach students not only in his own state or region but nationally as well, since the media and methods employed by him in teaching will remove barriers of space and time in learning" (as cited in Saba, 2014, para. 5).

Much of what Wedemeyer predicted over a half century ago is now true. As an example, during the past decade, the emergence of open educational resources (OER) and MOOCs (Bonk et al., 2015) has made self-directed learning (SDL) more prominent, essential, and celebrated; especially, in the Global South (Bradshaw & MacDonald, 2023; King et al., 2018; Zhang et al., 2020). Add to that the need to learn online caused by the pandemic, during which the citizenry of the world got an intense taste of SDL since early 2020. In K-12 and higher education settings, some referred to this as emergency remote teaching (Bond et al., 2021; Hodges et al., 2021), which turned the stomachs of myriad teachers, parents, students, administrators, and online learning researchers.

What the data reveal is that the pandemic caused a global surge in learning as people had more time available to devote their own professional development (PD) efforts but could not enroll in traditional face-to-face PD. As would be expected when in the pandemic, the percentage of people engaging in self-directed learning pursuits multiplied, and many of the skills learned at that time are now resurfacing and helping many millions of independent online learners in countless ways today. As Brookfield argues (2013) in his book, *Powerful Techniques for Teaching Adults*, SDL is a highly empowering experience that can impact one's identity and success as a learner.

Fortunately, opportunities for SDL have dramatically increased since Brookfield's book was published a decade ago. With the growth in educational podcast and webcast shows, free and open digital books and courses, designated channels for learning in YouTube and other shared online video services, and myriad OER across disciplines, educational sectors, and age groups, reliance on SDL is accelerating. However, designing effective and empowering learning environments is complicated and challenging. Teacher training programs typically do not offer training in how to structure environments to allow learners extensive autonomy and empowerment in deciding their own learning plans and goals, strategies, and assessments. Adding to the difficulty, there no one strategy, approach, or instructional design method that can be embedded to assure SDL will be occur. It is not that simple to do. As a result, there is a pressing need for concerted research on SDL in open, online, and distance education.

RESEARCH JOURNEY

In an attempt to better understand and adapt to these societal changes, we have conducted a series of studies related to SDL in MOOC and OER environments. Our various studies include how MOOC instructors around the globe design and deliver their courses to foster SDL (Zhu & Bonk, 2019a, 2019b, 2020). We have also targeted specific countries and regions of the world with studies specifically focused on South American MOOC instructor perceptions of SDL in places such as Argentina, Brazil, Chile, and Colombia (Zheng et al., 2023), as well as MOOC instructors in Malaysia and Indonesia (Sara et al., 2020). Notably, the South American MOOC instructor study was recently completed and has yet to be published.

On the learner side, our research includes interviews with MOOC learners regarding their perceptions of SDL when learning from MOOCs. For instance, Bonk and Lee (2017) surveyed 159 MOOC learners about their self-directed online learning and found that they were internally motivated and enjoyed the freedom to learn informally from OER and MOOCs. These MOOC and open education learners were primarily driven by personal curiosity, personal interest, professional growth, and self-improvement, not passing a course or getting a degree. Solidifying these findings, Bonk and his team had reported similar findings in an earlier study of MIT OpenCourseWare users (Bonk et al., 2015).

Using those two studies as a baseline, we (Zhu et al., 2020) surveyed 322 MOOC students on how they self-direct their learning, including questions related to self-monitoring, self-management, and motivation (Zhu et al., 2020). We soon followed that up with 15 MOOC learner interviews that provided vital perspectives on instructional elements that foster self-directed learning in MOOCs (Zhu et al., 2022). Most recently, we collaborated on a major meta-analysis of the SDL research in MOOC environments over the past decade. That study, which was published in Distance Education (Doo et al., 2023), found that all three key SDL components--self-management, self-monitoring, and motivation--had a significant effect on the learning outcomes. Stated another way, they all are important.

We are continuing to interview MOOC students and instructors. In fact, during the past two years, we have interviewed 13 adolescent youth in Nepal about their SDL practices as well as seven Nepali teachers to help confirm the student findings. Before the pandemic, these students had received certificates after completing MOOCs to learn English, and, then during the pandemic, many enrolled in dozens of MOOCs on other topics from prestigious universities around the globe. The focus of that study was again on the three key components of SDL, namely, self-management, self-monitoring, and motivation. Worth noting, the Nepali youth study revealed various supports by the local learning community that enhance students' ability to engage in self-directed learning. Two research manuscripts from that study are now in review (Li Kadirova, et al., 2023; Li, Zhu, et al., 2023).

At about the same time, we also conducted an investigation into aspects of SDL when involved with online language learning using the popular mobile platform Duolingo. In that research, we investigated how the system supports and facilitates student SDL. That study included a survey of 84 Duolingo learners and follow-up interviews with ten such learners from around the world (Li & Bonk, 2023; Li et al., 2023). That study revealed that learners all over the world are motivated to learn new languages for social and cultural reasons such as traveling to another country and readily using the train or subway system or conversing intelligently with a neighbor from another country as well as to train their brains, not necessarily to obtain a credential, score, or grade. Intrinsic motivation trumps extrinsic. And they readily self-direct their learning to do it.

Most recently, using both surveys and interviews, we also have begun to explore how Argentine tango dance learners continued learning in an online and self-directed fashion during the pandemic. That study is ongoing, but the results thus far parallel our previous work in terms of self-monitoring, self-management, and motivation characteristics.

Clearly, we have been in the throes of SDL research for some time. When that happens, it is vital to step back and reflect on what has been learned thus far and then attempt to operationalize the findings in some way, such as generating conclusions, frameworks, models, instruments, checklists, guidelines, new instructional methods, etc. In the following section, we detail one such artifact that could prove useful to instructors, learners, and instructional designers when wanting to foster SDL.

EDUCATIONAL IMPLICATIONS AND PRACTICES

Clearly, SDL skills are increasingly vital when learning in a world that offers innumerable open educational resources. At the same time, the courses and resources that learner's access can be purposefully designed to foster and enhance SDL. As indicated, implications are detailed below for instructional designers, learners, and instructors in the form of specific features that can be embedded in open, online, blended, and distance learning to foster notetaking, self-reflection, time management, and other strategies found to be beneficial for self-directing one's learning.

After the above-mentioned studies and many others on MOOCs and open education, we published a list of 15 guidelines for designing MOOCs as well as any online course or program geared toward the self-directed learner (Zhu & Bonk, 2022). We followed that up with another manuscript that more deeply discusses the SDL trail we have been on for nearly a decade (Bonk & Zhu, 2023). In the present paper, we hope to convert our experimentations, discussions, and findings into a checklist that can help learners find success in this rapidly expanding open, online, and distance learning space. Just what should they be looking for in an online course (including a MOOC) or free and open educational resources to help them navigate these resources in an efficient and productive manner? What are the instructional design components that effectively guide the learners into the contents and help elevate and then maintain their motivation?

Below is a 24-item checklist, based on our research, that should help self-directed learners when deciding to enroll in a MOOC or some other form of open, online, and distance education. Additional explanations of items for this checklist can be found in Zhu and Bonk (2022) and Bonk and Zhu (2023). We also mined a few ideas from a recent dissertation by our highly valuable team member, Annisa Sari (2023), who explored instructors' strategies in promoting learning engagement and career-relevant skills in business, economics, and management MOOCs.

There are seven key sections to the SDL evaluation checklist, which are detailed below. These sections include the following seven: I. Course Structure; II. Time Management; III. Course Resources; IV. Course Flexibility; V. Interactive and Engaging Pedagogy; VI. Applications and Assessments; and VII. Instructional and System Supports. Each of these seven components of the checklist plays a significant role in fostering and maintaining SDL in online courses.

Checklist for Evaluating Self-Directed Learning

I. Course Structure

(1) ____ **Plans and Goals:** Are learners encouraged to make strategic course plans and set individual learning goals within the course including the targeted readings and activities, tests and evaluations, challenges, etc., that they plan to complete.
(2) ____ **Weekly Course Overviews:** Does the course contain weekly overviews and other support structures of upcoming activities and assignments that are chunked into manageable parts to help with learning?
(3) ____ **Introductory Material:** Are video introductions, course tutorials, frequently asked questions (FAQs), and a table of contents (TOC) provided.

II. Time Management

(4) ____ **Course Reminders:** Does the course include task and activity reminders to help learners not only establish their personal learning goals and strategies for task completion, but also reassessment and refinement over time?
(5) ___ **Time Management Cues:** Does the system inform the learner approximately how much time remains in the learning activity, unit or module, or entire course and embed additional supports for effective time management routines?
(6) ____ **Content Chunking:** Is the content chunked into brief or time-limited units to provide easier mobile access from a variety of situations and settings (e.g., airport concourse, cafes, doctor's offices, subway or bus systems, etc.)?
(7) ____ **Succinct Learning Units:** Are short learning units and activities designed, including brief use of instructional videos (1 minute to 10 minute) and any synchronous sessions, so as to foster motivation and help with time management?
(8) ____ **Estimated Time Frames:** Are the estimated time frames highlighted for particular units and remaining activities within those units?
(9) ____ **Progress Indicators:** Are progress indicators and other summative visual cues, markers, or overviews inserted in the course or system as metacognitive aids or scaffolds to help with self-monitoring one's advancement within the course and task completion?

III. Course Resources

(10) ____ **Resource Access:** Does the course offer free and easy ways to navigate and access different kinds of course resources including practice quizzes, video transcripts, glossaries, instructor lecture notes, e-books and other digital supplements, reports, videos, etc.?
(11) ____ **Conceptual Linkages:** Is the content and associated tasks and activities presented in an easy to navigate and understandable way, including linking key concepts to cases, examples, and current issues in the news.
(12) ____ **Intelligence and Resource Augmentation:** Are AI-based tools, resources, scaffolds, assessments, and examples utilized or provided in the course to help personalize and extend the learning possibilities?

IV. Course Flexibility

(13) ____ **Course Flexibility Options:** Does the course provide flexible timelines and other mechanisms to grant the learner more power and autonomy in making their important learning-related decisions?
(14) ____ **Course Material/Content Options:** Does the course make available optional learning materials and self-selection options for those who want to explore areas tangential to the course or venture deeper within particular topics of interest?

V. Interactive and Engaging Pedagogy

(15) ____ **Gamification Techniques:** Does the course or module incorporate the use of gaming principles or activities to support SDL (e.g., leaderboards, contests, posted streaks, rewards, timers, progress and performance indicators, points, badges, and avatars)?
(16) ____ **Opportunities for Learner Interaction:** Does the course offer opportunities for peer interaction such as peer-based task reviews and assessments, peer- or team-based assignments, or asynchronous discussion forums?
(17) ____ **Inclusionary Tactics:** Does the course address diverse learners and their needs including having lectures recorded with captions added, materials available in multiples languages, culturally diverse examples provided, and course contents made easily accessible and in multiple formats (e.g., print, visuals, audio, text to speech, etc.), and other methods related to universal design for learning (Gronseth & Dalton, 2020)?

VI. Applications and Assessments

(18) ____ **Application Exercises:** Are there ways to try out, apply, or put course material into practice in the course in order to assess whether one has adequately learned the content?
(19) ____ **Reflection Questions:** Are learners intermittently provided with reflection questions for them to contemplate their knowledge gains?
(20) ____ **Embedded Self-Assessments:** Does the course embed quizzes and other forms of assessments and quick check tasks to give learners opportunities to self-assess their learning progress and mastery?

VII. Instructional and System Supports

(21) ____ **Varied Forms of Feedback:** Are learners provided with timely and constructive forms of feedback by the instructor, peer, self, expert, and system (e.g., AI-based)?
(22) ____ **Learning Community:** Are attempts made to build a community of learners within the course, such as through interactive tasks and activities (e.g., polling, the use of social media, participant knowledge sharing task, learner profiles, and participant location maps)?
(23) ____ **Instructional Support Community:** Are instructional supports from experts offered such having a community mentors, tutors, and teaching assistants who have completed the course and can moderate discussion forums, post questions, and monitor the course activities overall?
(24) ____ **Automated Guidance:** Does the system offer some type of automatic or AI-based counseling or advisory services for learners who are falling behind or momentarily lost or confused?

As detailed above, there are myriad components and criteria to contemplate and plan for when designing a MOOC or other form of online, open, and distance education for self-directed learners and their twenty-first century learning opportunities. Skillful design is needed to sustain learner motivation when thousands or tens of thousands of learners enroll in a single course. Keep in mind, unlike the early days or MOOCs a decade ago, the majority of MOOCs today are self-paced, and, therefore, require a wealth of self-directed learning skills of the participants. These SDL skills could be significantly augmented and accelerated by purposely designing online courses that contain many of the instructional design characteristics detailed in the checklist.

As of the end of 2021, there were nearly 20,000 MOOCs available taken by 220 million learners from nearly 1,000 universities (Shah, 2021). Given the solitary journey of a MOOC learner, MOOC learners need to be aware of courses that are richly appointed with various SDL supports and resources. One way that this could occur is if they communicate with other learners when they have enrolled in or completed such types of online courses. They could also complete an external course rating checklist or evaluation form. Those communications and ratings could inform others of the importance of different instructional design components for the self-directed learner.

When skillfully designed, brief learning units and content packages can motivate learners to finish learning activities within quite limited timeframes. For example, many MOOCs instructors that we interviewed recommended the practice of dividing lengthy videos (e.g., 30 minutes in duration) into shorter segments (e.g., 5 minutes each), which has proven to have a noteworthy impact on maintaining learners' motivation to successfully finish their courses.

Perhaps a better use of this checklist would be for learners to complete it at the end of a course or unit, thereby serving as a course reviewer or evaluator whose advice can help other learners decide if they might enroll in that MOOC or online course. In addition, teachers, armed with completed checklists, would be able to more intelligently recommend such courses to current and future students. Course or program accreditors or evaluating would have timely and pointed information for their reviews, reports, and decisions. Perhaps such a checklist can also help open educational access proponents win a few victories in the intense battle for openness (Weller, 2014).

Among the possible additional applications of the checklist would be to have it in a downloadable format that educators could use on demand. Taking this a step further, it could be used in professional development (PD) workshops to teach educators about SDL components and considerations. For instance, teachers could evaluate how ready different online courses and activities are for SDL using the checklist. In addition, leaders of that PD activity could have two or more teachers compare the same courses and activities with the checklist. There might even be a virtual writing space allocated for comments or annotations that could be individually inserted and then collected and compared.

Over time, it is conceivable that such a checklist would find extensive innovative pedagogical uses. For instance, the SDL checklist could be utilized in paired or group discussions, debates, and reflection activities in PD workshops, education related courses, and various training activities. Perhaps a key goal of such workshops and training sessions is to have a capstone activity with participants designing their own courses or experiences with different SDL components and then presenting and defending their designs to their peers. Such an ending activity could move the impact of the training from initial awareness of SDL to deliberate actions to create more SDL enabled learning environments.

Concluding Remarks

In the coming decades, as the availability and quality of open educational resources expand in ways we likely cannot even imagine, such types of checklists become increasingly urgent; maybe even mandatory. The demand for such course reflection templates will also be influenced by the rise of microcredentials and other types of certification or degree options from MOOCs and open education (Banhan, 2022; Hollands et al., 2023). As the self-directed learner options increase, so, too, must the evaluations of those options. Today, we not only must self-direct to learn, societal changes are so rapid that we also must self-direct to live.

We hope our checklist can help you and your colleagues, students, and friends successfully navigate this self-directed learning world. If you have suggestions for enhancements to our checklist or wish to recommend similar SDL assessments, please contact us. Improvements to such instruments can only be fashioned through continued discussion, reflection, and testing. We wish you well in your own self-directed learning pursuits; it may now be the most important skill that you have.

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