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Mary Wilson

Independent Researcher, mary.gabriola@gmail.com

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Online instructional design in the new world: Beyond Gagné, Briggs and Wager

Mary Wilson
Independent Scholar, Gabriola Island

Abstract: MOOCs, Open Access, Badges... all these new technologies and ideas should provide a golden age for adult education online. Instead, profoundly traditional models of instructional design impose restrictions.

Much of the strength of the tradition of adult education is its focus on freedom. Worker education, immigrant education, literacy education... these and many more examples reflect the connection between education and the development of individual autonomy and power. Knowles identified the adult learner as distinctly different from the child, motivated by personal goals that adult education could meet. Freire expanded and challenged traditional views, pushing adult education into the area of community empowerment.

Knowles and Freire wrote before the development of the online world. Now, many of the educational opportunities available to adult learners happen online. Particularly in this time of freely-available Massive Open Online Courses (MOOCS) and other technologies, it should be a golden age for adult learning. Yet it seems that the basic principles of adult education are not often encountered or obvious in this golden age. Instead, the role of instructional design is more central.

The traditions of adult education typically had little to do with instructional design. Instructional design has usually been ignored and sometimes denigrated in the world of adult education, seen as something most appropriate to “training,” (itself defined as a lesser-than version of “education”) and strongly linked to outmoded behaviorist approaches to teaching. The expansion of the world of online learning, though, makes instructional design impossible to ignore. For good, practical reasons, online courses follow a “design before delivery” model – that is, they are planned, and the content produced, before the first participant opens the virtual classroom door. This means that for better or worse, instructional design is central to what is presented.
What are the implications of this for adult education in the online world? The literature of adult education has much to offer the world of online instructional development, and adult educators need to more fully engage with their colleagues in this world.

**The tradition of freedom in adult education**

Malcolm Knowles and his description of the characteristics of adult learners has been a touchstone for adult educators since his works were first published. His work has been extensively critiqued, but the central ideas still hold some appeal when we are thinking of adult learners. Knowles described us as practical, motivated to learn, self-directed and goal oriented. He valued the experience we bring to education, viewing life experience as something that opened the possibility of learning through discussion and other similar activities. He also noted that adult learners need to know why what they are learning is significant (Knowles 1980).

Knowles’ focus is very much on the individual, and on how the educator can design learning opportunities for the individual in a way that makes success most likely. The focus is not particularly on the content of learning – rather, it is on the learners, their characteristics, and the impact those characteristics should have on the educational process.

Freire’s work is oriented more towards process, and is rooted in his assumption that the purpose of education is to give people the tools they need to think critically about the oppression they face, and to collectively overcome it. His work is specifically focused on the idea of freedom – freedom from oppression, and freedom from the silence that is imposed by what he describes as the “banking” model of education. The conscientization process he describes relies on small groups, working together to first conceptualize their community and/or world, and then to critically analyze it. Individuals are assumed to bring their current understanding and a willingness to critique, but Freire does not discuss the role of previous experience as much as Knowles does – except to frame it as possibly negative (Freire, 1970).

Why do these writers matter in a discussion of online instructional design? They matter because their focus includes the experience of the individual learner, and suggests that education will enhance freedom –collectively for Freire and by implication in the work of Knowles, since he sees learners as motivated by, and able to freely choose and achieve, their own goals.

Is it possible for educators in the online realm, particularly but not only those involved in MOOCs, to incorporate this focus in a learning situation where design must always come before delivery?
Instructional design and online learning – the basics

There are many models of instructional design. Perhaps the best known is presented in the Principles of Instructional Design (Gagné, Briggs and Wager, 1992). Still a familiar textbook in instructional design classes, it lays out a calming and clear path through the development of instruction… from defining performance objectives to the development of the learning tasks, to designing instructional sequences and finally the evaluation of student performance.

The earliest versions of this approach were Gagné’s alone. The work can be firmly placed in the behaviourist paradigm. Gagné himself began work in development of instruction in the armed forces, where was a trainer during the second world war. The armed forces of every nation were full of people who needed to learn new skills quickly and reliably, and this systematic approach appealed.

Although Gagné’s is perhaps the best known model for the systematic development of instruction, in the real world of instructional design, the much simpler ADDIE model is the more commonly used. The part that is commonly referenced is a five-step planning model whose steps can be used for all kinds of development projects:

- Analyze
- Design
- Develop
- Implement
- Evaluate

ADDIE’s origin as a formally-named model for instructional design is a bit obscure, but it is generally agreed to be a higher-level version of a more detailed model for the systematic design of instruction developed for the U.S. armed forces in the 1970s (Molenda, 2003).

It is interesting to note that two of the most commonly-cited models for instructional design share these military roots. In both cases, there is an assumption that the content to be learned can be clearly identified, and a structure built to support the learning. The ADDIE model’s analysis phase does typically include a needs assessment, so in that sense learners are consulted. However, the outcomes of instruction are thought to be both predictable and quantifiable.

The model of the development process for an online course, be it a MOOC or a more local offering, is always the model of a team project. An ideal team would include a subject
matter expert or experts (the professor, in the case of a university course), an instructional
designer, and various educational technologists. This seems reasonable, on the face of it. One
expects professors to bring a deep knowledge of teaching in a subject area. Instructional
designers would also seem to be experts in teaching and learning more generally, and perhaps
have more experience of online learning than many professors. The presence of educational
technologists would suggest that the subject matter experts and the instructional designer could
focus on the teaching of content, leaving the technical details of course development to others.
Of course, not all online courses are university courses. Adult learners may participant in
professional development activities, general interest activities and a host of other options. But
the model of development, wherever the location, will tend to be similar.

What’s wrong with this?
Well, nothing, in some ways.

Designing an online course is a tremendous amount of work. Course participants, be
they students seeking a credential, casual drop-ins in a MOOC or passionate knitters in a
Craftsy course, have certain expectations. They expect content to be well-organized. They
expect to be able to follow what they are supposed to be learning. They expect to be able to find
everything they need, and get assistance if things are confusing. As Knowles noted, adult
learners are goal-oriented, and they bring a lifetime of experience with them. They know what a
course is supposed to be like, and they usually know what they want.

Hundreds of hours of work from multiple people will go into the design and
development of an online course that meets these expectations. The focus for most of that time
is on the content: making sure it is accurate, making sure the illustrations are clear and the
examples are compelling, making sure the evaluation questions test the learning outcomes,
making sure that everything functions just as it should for the learners.

The learners? They are the “piece” that is often overlooked in this design process.

This is nowhere more obvious than in the design of many MOOCs – the Massive Open
Online Courses that were touted as revolutionary when they first appeared a little less than ten
years ago. The idea did seem pretty different from standard distance and online education.
Rather than university courses often requiring formal admission, always requiring registration
and inevitably requiring hefty tuition payments, these university courses were free and
delivered by some of the most prestigious universities. The design, particularly in the early
MOOCs, followed a set pattern. Typically, there were recorded lectures delivered by full
professors, links to resources, discussion forums and exams – usually multiple choice exams.
More recently, peer-marked assignments have been added, along with certification processes that require payment for proof of completion.

For those of us who remember huge first-year courses in large lecture halls, the MOOC might not seem quite so innovative. The discussion forums in many MOOCs hold some of the same promise as the tutorial groups of the more traditional bricks and mortar campuses. The reality, though, is that thousands of people participating in a discussion forum really doesn’t tend to make for much more meaningful interaction than did a small group of undergraduates who hadn’t done the readings. Discussion questions often feel more like exam questions than the kind of divergent prompts that could inspire exploration of ideas. Multiple choice tests must be geared to specific content – content selected when the course is designed, not something that learners discover on their own or co-create. There are other critiques of MOOC design, too, and it has also been noted that while MOOCs would seem to increase accessibility to learning, the possibility of increased access to education for marginalized learners through MOOCs seems limited (See for example Stacy 2013; St Clair et al 2015).

**Freedom and possibility in MOOC design**

There are many challenges in the development of online courses that bring the same sense of freedom to adult learners that the idea of freely-available open courses would seem to suggest.

Some of these challenges are part of the design process. Design in advance mitigates against meaningful discussions with learners about their goals and intentions for the course, and makes it almost impossible to do a needs assessment with those who participate. This leads to an understandable twist towards “what do they need to know” (privileging content) and away from “what do they want to learn” (which would privilege learners). Since content can’t be changed during a course, it can become easier to just not ask the question.

There can also be a kind of reluctance on the part of designers to surrender control. Many instructional designers have been trained using the principles of Gagné et al, and they are committed to the idea of systematic design of instruction for approved results. This is not a bad thing – you likely want your pilot to learn to fly in an organized, systematic way – but it is not necessarily the best way to open up divergent thought and creative approaches to potentially more flexible subject matter.

So how can the old-school principles of adult education enhance the 21st century delivery of readily-available online learning opportunities? There are some possibilities and options that can be incorporated into courses as they are designed.
Knowles would have us think first of the learner, of their motivation to learn and willingness to take responsibility for their learning.

- Course design could give learners options, not just for assignments, but for desired learning outcomes. A course could offer a range of options and encourage students to aim to achieve the ones that are most meaningful for them. Assignments could be tied to specific outcomes. (“Want to learn X? This assignment is designed to help you do that.”)
- Courses could go further and provide a way for learners to build their own learning outcome(s). A collective discussion of possible outcomes might help them do that.
- As educators and course designers, we can encourage a focus on success that is attached to learning, rather than just course completion. (Many books are put down partially finished, yet we don’t typically describe the book as a failed technology or worry overly about completion rates for it.) This can be challenging. MOOCs are moving away from the exciting early days of “look at all the people!” and towards a focus on credentialing and paid certification. As educators, let’s let the administrators worry about that part and keep thinking about how to make real learning possible for whoever shows up.

Freire would have us remember the power of learners working together to critically examine their own situation.

- Find ways to open meaningful spaces for meaningful collaboration and discussion. Meaningful collaboration requires learners to know something of each other, or at least to have the opportunity to do so. Freire worked with individuals in community. The MOOC will never feel like a community the way a neighbourhood developed through years of shared experience does, but there can be design options that will help provide some simulation of this. For example, if learners are given options to pursue various learning outcomes, perhaps discussion forums could also be divided in this way. “Discussions for those who are working to learn X” might be more meaningful than general, wide-open calls to “discuss what you’ve learned this week.”
- Provide support for learners in problem-posing and discussion-starting. Not everyone in a MOOC is a skilled academic writer, comfortable with crafting meaningful discussion questions that will engage others. In the earliest weeks, it will likely be helpful if some of those questions are provided as possibilities. It may also be possible to build in some learning-how-to-learn-style guidance, giving participants direction in crafting their own questions for discussion.
• Ask yourself, as you work with others to design the course, how you are shaping the content. Are you presenting a single vision of the world? Is there space for disagreement and exploration? Is this explicitly supported?
• Encourage learners to use what is in the course to explore their own ideas and experiences, and build in meaningful ways to do this. Both Freire and Knowles would approve.

Finally, as you work with an instructional designer to plan your course, don’t think only of the curriculum—think of those who will be learning. For a MOOC, a formal needs assessment isn’t practical. Can you do an online survey of possible learners? Have conversations with people who you think might take the course? Use your educational imagination to envision several possible learners, with several possible reasons for participating in the course work?

References


