

Designing Instructional Articles in Online Courses for Adult Learners

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Aspiring teachers are taught the elements of *pedagogy*, originally the art and science of teaching children. Many aspects of teaching adults, however, are fundamentally different than those employed in teaching children. In order to acknowledge these differences, a new word—*andragogy*—gained currency in the late 20th century. This article highlights the important principles in teaching adults and suggests teaching strategies to support these principles in online courses for higher education and corporate learning programs. To demonstrate these principles, the full-text of this article is also available in an [online instructional format](#) that the reader may wish to follow in lieu of or in parallel with this standard journal format.

Pedagogy and Andragogy

According to the fourth edition of the *American Heritage Dictionary*, the word *pedagogy* is derived from the Greek *paidagogos*, which referred to "the slave who took children to and from school," and the term is commonly understood to mean "the art or profession of teaching." Most schools of education require the study of child development and train new teachers in methods that account for children's stages of maturation.

To their detriment, most training courses for educators in higher education and corporate learning programs pay less attention to learners' needs, though the literature on adult education is quite rich. In 1833 the German educator Alexander Kapp coined the term *andragogik* or andragogy (Reischmann [2004](#), "Why 'Andragogy'?"). The term was not widely used until it was resurrected, refined, and popularized in the 1970s and 1980s by Malcolm Knowles. According to Knowles, adult learners differ from child learners in their desire to be self-directed and to take responsibility for decisions (Carlson [1989](#); Atherton [2002](#)). Courses that address adult learning must be sensitive to these desires and should be designed accordingly.

Principles of Adult Instruction

An article on andragogy in the Theory Into Practice (TIP) [database](#), an excellent online resource that succinctly presents 50 learning and instructional theories, lists Knowles's assumptions (Kearsley [n.d.](#), paragraph 2):

- Adults need to know why they need to learn something.
- Adults need to learn experientially.
- Adults approach learning as problem-solving.
- Adults learn best when [they believe that] the topic is of immediate value.

In their book *Telling Ain't Training*, Stolovitch and Keeps (2002) summarize Knowles's work into four key principles of adult instruction:

- **Readiness:** Training must clearly address learners' needs so that they will be ready to learn.
- **Experience:** Training must respect and build on the life experience learners bring to the learning session.
- **Autonomy:** Training must invite learners to participate in shaping the direction, content and activities of the learning experience.
- **Action:** The connection between the training and the application of what is learned must be clear.

These principles suggest that teaching strategies such as case studies, role playing, simulations, and self-evaluation are most useful. Well-designed case studies, for example, provide engaging vignettes of real-world situations with which the students can identify and for which the subjects under study are clearly relevant. Students are encouraged to augment what they are learning with insights from their own life experience. And since case studies rarely have a single solution, they invite students to define and defend their own conclusions and to reflect on the application of these solutions in their own lives.

Applying the Principles

Principles are great, but how do we apply them? How do we transform this great advice into online courses that are more interesting and effective for adult learners?

Over several decades of developing and delivering traditional and technology-enhanced training in the corporate world, we have often witnessed the gap between good principles and their application. In the remainder of this article, we attempt to avoid this gap by examining one common online teaching strategy—the instructional article—in detail and explaining how the ideas we have discussed so far can be put into practice.

Instructional Article Principles

While adult learning tends to be more problem-centered than content-centered, it is still usually necessary for students to learn specific knowledge prior to moving on to more advanced levels of performance. In many classroom courses, this knowledge is gained through the time-honored instructional method called a lecture. However, reading long lectures on the Web will not work because it is extremely difficult to tie the lecture's linear presentation of information, assertions, and (necessarily) rhetorical questions to the needs of the adult learner as expressed in the principles of readiness, experience, autonomy, and action outlined above. In place of a written lecture, several instructional articles that distill the major concepts addressed in the lecture are more appropriate for online learning.

Instructional articles are short and concise documents conveying relevant, critical information to support concepts, procedures, and/or performance-based skills. An instructional article is written specifically to communicate the content-knowledge necessary for improved, more advanced performance. For self-paced courses and online or Web-based training, instructional articles function like a subchapter of a book—the content is consistent with and essential to an understanding of the overall subject.

Yet unlike the subchapter of a book, an instructional article is written to stand largely on its own; it can be read and understood independently. This independence is important because flexible navigation in most online courses allows learners to jump easily from one article to another, studying some articles in detail and skipping or skimming others. Although some designers may consider this user behavior undesirable since they have worked hard to plan an optimal path through the course material, skipping and skimming is likely to happen, and we would be wise to design our instructional articles to maximize the probability of student success.

Article Content Guidelines

Successful adult learning experiences are *relevant* and *critical*. As skilled instructional designers developing course content, we should continually ask ourselves: What types of information and knowledge will the learner need to comprehend a concept and later to perform a certain task or skill? We should remember the old instructional design distinction between "need to know" and "nice to know." As explained above, adult learners will be attentive to self-paced instruction only if the content is relevant to them and if they see the knowledge as critical to their mastery of the desired skill. Good designers, like good authors, know what material needs careful elaboration and what material can be made available as an additional resource.

We recommend the following specific content guidelines for the creation of instructional articles:

- Ensure that each instructional article supports the learning objectives/goals of the course.
- Get the learner's attention immediately by clearly making the topic relevant to something important within the learner's frame of reference (e.g., job, studies, professional development).
- In the body of the article, follow the traditional form of expository writing with an introductory paragraph, one or more explanatory paragraphs, and a summary paragraph.
- Integrate questions or other interactive activities—such as exercises, problem-solving situations, and/or short simulations—into the body of the article.
- Always limit the instructional article to one or two main ideas or concepts.
- Use only the most important "need-to-know" supporting details.
- When possible, support the article content with audio and/or video clips containing relevant information, such as "how to" instructions or examples that further clarify key learning points.

Article Organization and Navigation

Organize the structure and navigation of an instructional article to enable the learner to read and review the instructional content in a short time as well as take advantage of any links, graphics, or animations that support learning the content. Follow these simple guidelines to ensure an effective structure and navigation:

- Minimize the need for the learner to scroll through text. A printed instructional article should not exceed three pages.
- Use graphics, diagrams, or pictures only when they lend meaning and clarification to the topic. (In some cases, graphics can also be used to get the learner's attention, but these graphics should not be overused because their effectiveness will diminish if the learner considers them an annoying distraction.)
- For ease of navigation, provide a link to the next article or interactive exercise at the end of an instructional article. Also make a link to the main course menu available on every page.
- Hyperlink all key words, phrases, and/or concepts within the instructional article to some type of glossary or reference that provides definitions and additional clarification as needed by the learner.

The [online instructional format](#) of this article provides examples of several of these points. Each page is short, and most pages require no scrolling. Graphics are used judiciously. Each page provides clear links to the previous page, the next page, and the beginning of the article. Since there is no overarching course of which this article is a part, there is no link to a main course menu. The example does not contain a global glossary, although at least one important online learning environment ([Moodle](#)) provides a powerful automated glossary feature as part of its course development toolset.

Remember: Simple, clear navigation will help the learner feel in control, avoiding distraction and frustration with the course materials. These simple guidelines for content, structure, and navigation create instructional articles on sound design principles that support effective learning.

Integrating Articles with Other Interactive Instructional Methods

Instructional articles should be only one of several instructional methods or teaching strategies used in an online course. As mentioned earlier, teaching strategies such as case studies, role-plays, simulations, and self-evaluations should be used as appropriate to support the problem-centered orientation required for successful adult learning.

Case studies like [Exhibit 1](#) are one of the most effective strategies and generally do not require a great deal of special programming. Case studies are highly experiential and job-related, and they work best when

coupled with supporting instructional articles. In this way, the learning experience can be more learner-directed, as Knowles suggested.

A case study may be included within the body of the article, encouraging learners to notice connections between the article's text and the example as they learn a particular fact or concept. Alternatively, the course could be set up with a single case study that includes links to all the pertinent instructional articles and student exercises. Learners would then use instructional articles as needed to help develop solutions to the problems presented in the case study. How learners use the instructional articles will depend upon how they approach the case study, which in turn is based upon their level of knowledge and the mistakes they make.

Simulations also may incorporate links to instructional articles to be used as resources or prior research. Simulations usually require more Web-development expertise but can be a useful strategy for learners who need to practice using software or working through the installation or repair of complex equipment. Simulations also can enable students to explore various paths through important human interactions, like a sales call ([Exhibit 2](#)). This type of learning strategy is task-oriented and self-directed, another application of the principles of andragogy.

Self-evaluations typically tend to be quiz questions in multiple-choice or true/false format. Increase motivation and learner involvement by making self-evaluations more interactive: Use a "drag-and-drop" design to match correct answers with their questions, or construct a game. In a crossword puzzle, for example, the critical clues for the Down and Across words could be taken from the definitions of key terms within the course. Instructional articles may be used with self-evaluations as links for review or more in-depth explanations.

Conclusion

Business trainers, coaches, instructional designers, and university educators need to understand the dynamics of adult learning as described by Knowles and others. Although Knowles's work has elicited some controversy (particularly among those who feel that he set up an artificially narrow definition of pedagogy in order to promote his ideas), his insights into adult learning behaviors and motivations are supported by other research and are generally accepted today.

Excellent online training courses for adults apply creative combinations of teaching strategies, using methods like instructional articles, case studies, simulations, and self-evaluations to engage learners. Such courses adhere to the following:

- the readiness principle, enabling adult learners to see the relevance of the material;
- the experience principle, respecting the expertise learners bring to the course;
- the autonomy principle, allowing learners to control their own learning paths through meaningful exercises and activities; and
- the action principle, emphasizing clearly and continually the connections between what is being learned and the real world in which it will be applied.

The two versions of this article—the Internet journal format presented here and the [online instructional format](#) on our Web site—demonstrate the difference format makes. This journal format is an easy, quick read and, if bookmarked, it can be very useful as a compact future reference. It is also easy to make a printed copy that can be augmented with personal highlighting and handwritten notes. The instructional format that actually employs these teaching strategies, on the other hand, is a more engaging experience in which the learning objectives are more effectively presented and reinforced. Each format has its place, but the instructional format is more specifically designed to take participants beyond the passive acquisition of information associated with their interests by providing the experiences necessary to deepen their understanding and enable them to apply what they have learned.

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