

3.1 | Apply: Learner Analysis Worked Examples & Case

Worked Example #1 Getting Ready for the Art Market: Prepare a Successful Artist Portfolio, contributed by Almut Haboeck, © 2008

Career Environment: Higher Education

The analysis of the learners has been derived from extensive teaching experience in art and art history in different academic environments by the main instructional designer and the SME. While it is in general difficult to predict completely who the enrolled students will be, the following characteristics can be assumed for almost any class in any academic environment.

The learners will be exclusively art students, who plan to graduate at the end of the semester. Since they are about to graduate, all of them will have created a substantial body of work. They are both undergraduate and graduate art students, who have the intention to further pursue a career as artists. This may mean that they intend to apply to graduate school (for undergraduates), plan to become an art professor in an academic setting, and/or work as self-employed artists and will therefore try to get a foot into the art market.

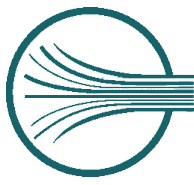
As all of the learners are at the end of their academic schooling it can be expected that they are equipped with the necessary reading, writing, and computer skills. It can also be assumed that they are aware of academic standards and rules (such as honor codes), and political correctness, including tolerance and respect for people from different ethnicities and cultures. This will be a necessary prerequisite as the course will involve writing endeavors as well as feature a diverse enrollment with respect to ethnicities, gender, age groups and social backgrounds. But the diversity should not exceed diversity issues students have experienced throughout their academic curriculum so far, and therefore they will be well equipped for a diverse class environment.

Artists are often more visual and tactile learners. However, their former academic experience will also have an impact on the adaptiveness and openness to different learning styles, as they have been confronted with different methods throughout their time at college/university. As this course is set up to prepare learners for the job market and is not a requirement, it can be assumed that learners will bring high motivational levels to the classroom (although this is always a factor which is difficult to predict).

Worked Example #2 Fourth Grade Instructional Unit on Native American Tribes of Tennessee, contributed by Elizabeth Bradley, © 2008

Career Environment: K-12 Education

This instructional unit seeks to address the lack of information for fourth grade students at X Elementary School, on the distinct Native American tribes of Tennessee. The learners are elementary school students, typically ages 9 and 10, and are impacted by several different systems. First and foremost, they are influenced by their parents, teachers, and other authority figures. The learners are also heavily influenced by the media and new technologies, as these two systems increasingly are directed at younger children. In turn, these learners are having a major impact on the media and advertising, as well as the creation of new products and trends. They will also eventually, indirectly influence the standardized testing and curriculum for future learners.



In terms of Maslow's (1954) hierarchy of needs, the learners most probably have a need for esteem and self-actualization. Needs at the lower levels of the hierarchy are typically addressed by school-wide and community programs, but they are still young enough to have a lot of “ego” and self-esteem needs they cannot meet on their own.

Learning needs were determined through a discussion with the lead teacher. Learning preferences were determined through interviews with the students concerning the ways in which they would like to interact with the instruction. All students are on the same physical ability level, and most are very close on cognitive ability levels. All of the students in the class struggle with reading directions before they begin an assignment, so they will need verbal instruction on how to use the instruction and how to do related assignments before they begin. There are some students who struggle with writing more than others, so minimizing the amount of reading will be a goal for the design. Only one student is significantly behind his peers in reading, and the students are otherwise approximately on the same cognitive and maturity levels. The learners have limited prior knowledge of Tennessee history, since this is the first time they will encounter the subject in school.

The instruction will be face-to-face and synchronous, led by myself or the lead teacher. The lead teacher and the learners are familiar with common technologies at the school. As a result, the lead teacher requested that the instruction use the SmartBoard™ and computers in the school computer lab, both of which will significantly impact the format of the final product.

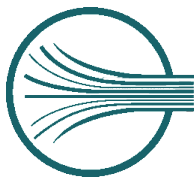
It is anticipated that students will be motivated both intrinsically and extrinsically, as the material will be engaging and interesting for the students, and if they perform well, they might be rewarded with team points or good grades. There are a variety of motivators, including a general interest in traditional games and video games. Others are very motivated by a sense of accomplishment or by excelling in their schoolwork. Therefore, competition between teams might be a great way to address both varying knowledge and ability levels, and motivation.

Worked Example #3 Habitat for Humanity Homeowner Maintenance Workshop, contributed by Amanda Walters, © 2008

Career Environment: Non-profit

The local Habitat for Humanity organization offers Homeowner Maintenance classes for new owners. The participants attending these classes typically have varying degrees of education levels and comprehension levels. As a result, it is important to deliver instruction that everyone can understand, but is not so remedial in nature that it causes more knowledgeable participants to lose interest. Due to the need for participant practice and ability to ask questions, the format of instruction will be a face-to-face class. Management has discussed the possibility of videotaping the workshop so that the instruction can be offered in a convenient format for viewing by Habitat families in the future. Therefore, the final instructional package will be designed so that it can be used both in face-to-face settings and by individual learners.

With regard to learner characteristics, most participants are assumed to have some basic prior knowledge, since most have worked on the construction of their own home. It is a requirement that Habitat home recipients, with the help of family and friends, work 150 hours on the construction of their home.



Motivation is expected to be high, as most families would like to be self sufficient by making small repairs on their own, and to have the satisfaction that they are able to accomplish the maintenance rather than having to pay a professional contractor, plumber, etc. Learner motivation is both intrinsic (resulting from pride in sense of ownership and empowerment to complete repair projects themselves), and extrinsic (resulting from the evidence of their completed work).

Physically, learners must be able to work in different locations inside and outside of a house, and be able to use hand tools, lift materials, etc. However, the instruction must also be designed with consideration of those who may be handicapped, unable to lift material, or have other physical limitations that prevent them from fully participating in the instructional tasks (e.g., physically getting on a roof to replace roof shingles).

Learner Analysis Case Study: The IDT Planning Tool

“The IDT Planning Tool” is a web-based, constructivist learning module designed for use by first year Instructional Design and Technology (IDT) graduate students. The tool provides case studies that students can use to investigate careers in different environments. A skills matrix allows them to identify the competencies they will need to practice IDT in their chosen career environment. The career environments addressed by the case studies include Business and Industry, Higher Education, K-12, Government, Military, Health Care, and Non-profit. Students are encouraged to engage in peer discussion of related reflection questions and a set of opinionated statements regarding each of the career environments. They are directed to respond to and communicate about the questions and statements with peers in either online synchronous chat sessions or asynchronous discussion board forums. Use of the tool is optional but encouraged by the IDT Department.

Learning Outcomes

The learning outcomes for the Tool include:

- Students will use the Tool during their first or second semester to identify coursework for their plan of study, prior to committee approval of the student’s plan of study.
- Students will indicate their recognition of the Tool’s relevance to their goals by choosing to use the Tool to investigate all possible career environment case studies.

Demographics – First year Instructional Design and Technology (IDT) graduate students (MEd program)

- N = 119 for the current year
- Age = 21 to 55 with an average age at program entry of 28
- 61% female, 39% male; 43% in-state, 36% were out-of-state, 21% international students

Physiological Characteristics – Unknown. None have registered with Student Disability Services.

Cognitive Abilities – Students have the cognitive ability to handle the coursework with an average GPA of 3.1. Reading level, verbal and mathematical abilities are at level, although the comprehension and writing abilities of international students are occasionally an issue and require remediation.

Prior Knowledge – Experience with the program content and the competency requirements of different career environments varies widely, depending on students’ previous degrees and level of experience. Some have had prior educational and/or training degrees or jobs, while others come from backgrounds that provide additional experience in the career environment of their choice.



Motivational Analysis – The motivational strategy rationale is based on the ARCS Model of Motivation (Keller, 2016) and other theoretical research quoted in Driscoll (2022). Some aspects of the learner analysis indicate that motivation for use of the IDT Planning Tool may be a challenge:

- Attention** Initially low. First year graduate students are often overwhelmed with the amount of work required and reluctant to take on an *optional assignment*. In this way, the Tool would be in *competition* with other elements of the student’s life and study.
- Relevance** Moderate to high. The purposes of the IDT Planning Tool include helping students to define their final work environment, to plan their course of study during their academic career, and to formulate a plan for life-long professional development. Most students will see the *relevance* of the Tool for helping them to lay out a course of action for the future. However, some students may have *preconceived notions* about career environments and academic goals and may not think that their use of the Tool is necessary.
- Confidence** Variable. Most graduate students will likely believe they have the cognitive and organizational capabilities to use the Tool effectively to develop their plan of study (*positive self-efficacy*). However, some students may be *overconfident* to the extent that they do not use the Tool. That is, they may have already decided on their career environment and their plan of study and may not think they can learn anything relevant from the tool. Additionally, the student may have had *negative past experiences* with career aids that make them reluctant to use the Tool.
- Satisfaction** Moderate to High. The *learner control* over goals and course of potential study provided by this Tool will be perceived as highly useful to graduate students. They are likely to be very satisfied with the results of using the Tool. The *natural consequences* of being able to develop a personal plan of study and plan for professional development, based on a chosen career environment, will *satisfy outcome and efficacy expectations*.
- Volition** Moderate and variable. Although many students may recognize the value of the IDT Planning Tool, sustaining engagement with an optional, non-graded activity amid competing academic and personal demands is likely to be challenging. In the ARCS-V model, volition refers to the learner’s effort, persistence, and action control required to follow through on goals despite distractions or waning motivation (Keller, 2016; Nakajima et al., 2013). First-year graduate students may delay or abandon use of the Tool without external structure, particularly when cognitive load and time constraints are high. Additionally, variation in prior knowledge and clarity of career goals may influence students’ ability to initiate and maintain engagement. Because motivation alone is insufficient for completion, effective use of the Tool depends on supports that reinforce goal commitment, self-regulation, and persistence through to completion, which are central to volitional control in the ARCS-V framework.

[Note: the IDT Planning Tool Learner Analysis Case is expanded in the Ch. 9 website resources.]

References:

- Driscoll, M. P., & Burner, K. J. (2022). *Psychology of learning for instruction* (4th ed.). Pearson.
- Keller, J. M. (2016). Motivation, learning, and technology: Applying the ARCS-V motivation model. *Participatory Educational Research*, 3(2), 1-15.
- Nakajima, K., Nakano, H., Watanabe, A., & Suzuki, K. (2013). Proposal for the volition subcategories of the ARCS-V model. *International Journal for Educational Media and Technology*, 7(1), 59-69.