

2.1 | Apply: Needs Analysis Examples

This document provides four needs analysis cases that provide examples of projects with challenges that should be met with instructional and non-instructional solutions.

Case 1: Directing Oak Tree Elementary PTA Funds

Oak Tree Elementary School has a very active Parent-Teachers' Association (PTA). They have sponsored many financially successful fund raisers during the past year, and would like to use the proceeds to supply additional technology for the school. The PTA has proposed the purchase of new electronic white boards to be placed in each room. The principal is open to the idea but stressed that each teacher will have to learn how to use the technology and instruct their students on its use.

Some of the teachers have expressed concern that they do not feel knowledgeable enough to effectively integrate the technology into their teaching, much less to teach their students how to use it. The principal doesn't want to refuse the PTA's offer to purchase the technology, but also sees that several teachers are uncomfortable using it and knows that this may discourage them from using the new purchases. He believes that a good in-service workshop on the technology will solve the problem, so he asks the school's technology coordinator to do a quick survey and needs analysis to verify the content of a future workshop.

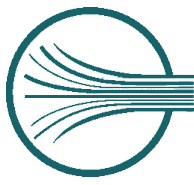
After surveying the teachers, the technology coordinator identifies several factors that the principal hadn't anticipated:

- The teachers feel overloaded already, and many resent having to learn how to use the electronic whiteboards and to teach students how to use them.
- The teachers have been asking for new grading software for the past year and want the PTA funds to be used to purchase software for grading tasks that they must complete, rather than spend it on new technologies that will require the use of methods that they view as optional.

When this information was presented to the principal and to the PTA, they were happy to adjust their purchase plans. The needs analysis served to identify a different purchase plan (a non-instructional solution) rather than the in-service instructional solution that the principal was originally anticipating.

Case 2: Addressing a Community College Dilemma

Dr. John Aimes teaches a face-to-face class on technical writing for a community college. He typically requires his students to submit their writing assignments in a Microsoft Word file or the open source equivalent. Each semester, he is always amazed to find that two or three of his non-traditional students are not familiar with word processing software. These are typically older students who are trying to "re-tool" to find a new job. One semester, he spent two entire class periods providing his students with an introduction to word processing software. The majority of the students were bored to tears with this instruction and several complained on the course evaluations that it took away from the time available to address the mechanics and methods of technical writing. What could/should Dr. Aimes do to ensure



that all his students have a working knowledge of word processing software without boring the majority of the class?

There are both instructional and non-instructional solutions to Dr. Aimes' dilemma. He could give a pretest on word processing concepts and skills at the beginning of the course and provide poorly-performing students with options for self-study, or could suggest or require that students complete a free or commercially-available tutorial on a word processing. He could also implement a non-instructional solution by establishing a prerequisite of the applicable, existing college course on productivity software.

Case 3: Identifying Options for Collaborative Strategies

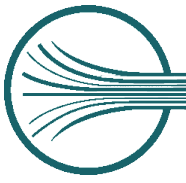
Diana Goleman teaches an English poetry course for high school seniors. She is a gifted facilitator who is able to elicit thoughtful reflection and comments from all her students, even the most reticent in the class. She typically divides students into small groups to analyze passages at least once during a 90-minute block scheduled class. Diana teaches in a growing school district that is strapped for space, and this year she has been scheduled to teach the poetry course in the auditorium where the chairs are bolted to the floor. What can she do to accomplish the group work she feels is essential to her course? Should she adjust her teaching style, change her instructional strategies and give up on group work, or do something else?

Ms. Goleman could have students sit on the floor of the stage for group work, or, on nice days, take the class outside. She could also design the group work to be accomplished online using synchronous chat or audio communication tools. If students have access to laptops and wi-fi at school, the chat version of this option could be implemented during class, or, they could do the group work as homework. A non-instructional solution would be to move the class to the school media center for group work, or petition the administrative room scheduler to find another location in the school that would provide physical facilities more conducive to her preferred strategies.

Case 4: Handling Global & Knowledge Discrepancies

Andy Farmer is a sales trainer for Dyna-Grow, an organic fertilizer company that carries a line of natural products for both commercial organic farmers and home gardeners. They market compound fertilizers to an international audience, custom-made to suit the local conditions (plants, soil, and climate). They have subsidiaries in several countries and employ sales representatives around the globe. Andy is tasked with training newly-hired sales employees from several different time zones (on the east and west coasts of the U.S., in Germany, and in China). All of the associates are experienced in fertilizer sales, but some have a background in organic farming and others are familiar only with traditional farming methods. All of the sales associates are unfamiliar with the Dyna-Grow products and philosophies. Furthermore, the training materials must be customized to address the differences in organic crops and farming methods used in the U.S., Germany, and China. After surveying the learners concerning their knowledge, Andy compiled a needs table to get some clarity on the problem (see table 1, below).

Andy could either bring all the new sales associates to the Dyna-Grow home office in Syracuse, NY for a face-to-face training session (a combination instructional and non-instructional solution), or he could implement some sort of online training solution. Due to the cost-prohibitive expense involved in



transporting the sales associates to the home office, Andy is forced to implement an online instructional solution. However, the differences in time zones necessitate an asynchronous approach to interaction between the new sales associates, the content, and existing sales personnel acting as mentors. This would allow the new hires to participate at a time that is convenient for them.

He decides to produce pretests and self-contained web-based instructional units on organic crops and farming methods for each region involved: the west coast of the U.S., U.S. east coast, Europe, and the four agro-ecological zones (AEZ) in China. He requires all the associates to take the organic farming pretest applicable to their region, and then “chunks” the content in the units so that the associates can take only the portion of the organic farming unit that their pretest results indicate they need. He then develops a single self-paced web-based unit on Dyna-Grow products and philosophies for all the associates. He also utilizes asynchronous discussion board exercises to prompt sales associates to share on-going challenges and ideas concerning the Dyna-Grow information, figuring that they can all benefit from the issues encountered in each region and from local examples of how Dyna-Grow products can be applied and marketed.

Table 1. Andy Farmer’s Needs Table

Audience Characteristics & Time Zone (GMT = Greenwich Mean Time)	Knowledge Needed
U.S. associates with organic farming knowledge, PST (GMT – 8 hrs)	• Dyna-Grow products & philosophies
U.S. associates w/o organic farming knowledge, PST (GMT – 8 hrs)	• Dyna-Grow products & philosophies • Western U.S. organic farming knowledge
U.S. associates with organic farming knowledge, EST (GMT – 5)	• Dyna-Grow products & philosophies
U.S. associates w/o organic farming knowledge, EST (GMT – 5)	• Dyna-Grow products & philosophies • Eastern U.S. Organic farming knowledge
German associates with organic farming knowledge, CET (GMT + 1)	• Dyna-Grow products & philosophies
German associates w/o organic farming knowledge, CET (GMT + 1)	• Dyna-Grow products & philosophies • European Organic farming knowledge
Chinese associates with organic farming knowledge, CCT (GMT + 8)	• Dyna-Grow products & philosophies
Chinese associates without organic farming knowledge, CCT (GMT + 8)	• Dyna-Grow products & philosophies • Organic farming knowledge for four agro-ecological zones (AEZ) in China
<i>GMT = Greenwich Mean Time; PST = Pacific Standard Time; EST = Eastern Standard Time; CET = Central European Time; CCT = China Coast Time</i>	