The increased accessibility and improvements in available technologies for distance education have, and will continue to be, a great asset for educators, trainers and learners. Technology has increased the learning possibilities. More than ever before, planners of educational programs need a systematic process for planning the effective use of distance education technology.

In *Instructional Media and The New Technologies of Instruction*, Heinich, Molenda, and Russell (1989) offer the ASSURE model as a procedure for effectively guiding and planning the use of media within a ‘traditional’ classroom setting. This author suggests that the ASSURE model is also relevant for planning programs utilizing distance education technologies. The ASSURE model has six steps: Analyze learners, State objectives, Select media and materials, Utilize materials, Require learner performance, Evaluate and revise. This article describes specific factors for applying the ASSURE model to make sure that learning is effectively promoted when utilizing distance education technology.

**A nalyze Learners**

This is accomplished through examination of the learner’s general characteristics and specific entry competencies. It will help later on to determine if the medium will support the objectives.

Applying this step to distance education, learner analysis identifies whether: (1) learners are sufficiently motivated and disciplined to participate in a distance setting, (2) learner’s preference and organizational/professional culture accepts or resists distance learning, and (3) distance technologies were previously used successfully with this group (or content).

The second part of analyzing learner characteristics is determining specific entry competencies, which is significant when viewed within a distance learning context. In a traditional classroom setting, an instructor can adjust the level of presentation, provide additional one-on-one instruction, or use other learning strategies to better align the content presentation with the learner’s actual abilities. In a distance education situation, those possibilities may not exist and as a result the program planner has taken a large risk.

The determination of ‘who the audience is’ becomes a risk when assumptions, rather than research, are the major source of information about the learners. Making an assumption during program planning risks an incomplete or inaccurate learner identification. When assumptions about the learners are incorrect, the consequence is delivering a program that may not match the learner’s needs or abilities. Specifically, failing to accurately analyze the learner can result in the wrong objectives, inappropriate learning plans, or materials. In short, an unsuccessful program.

To minimize this risk, a learner analysis should identify:

- motivation
- optimal learning style
- reading comprehension level
- existing/prior knowledge of the topic
- course expectation
- familiarity with distance learning
- experience and ability with the hardware/software/technology
- time commitment and availability
- education level and experience

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State Objectives

ASSURE's second step is to state course objectives. When applied to distance education technology, the program planner should consider five factors. These factors are whether:
1. course objectives can be met through distance education media;
2. objectives require interaction, brainstorming, feedback, or special equipment beyond what is accessible in remote locations;
3. participation and end-of-course performance requires in-person observation/evaluation;
4. the secondary objectives such as socialization, networking, small group breakout sessions can be met in remote locations; and
5. local facilitators (when necessary) are trained and available.

When these factors are satisfied, the situation is suitable for distance education. If these factors cannot be met by the proposed plan, the program planner is encouraged to either revise the objectives or select another delivery method. If the educational objectives can be met through using distance education technologies, then it is appropriate to proceed to the next step and consider media and materials selection.

Select Media and Materials

In the ASSURE model, this step is used to connect the learner's entry level skills and knowledge with the desired exit skills and knowledge. The ASSURE model suggests selecting available materials, modifying existing materials, or designing new materials as options within this step.

When media and material selection is applied to a distance education program, the program planner needs to consider how distance education technologies affect the media or materials. Specifically, the factors for consideration include:
- What are the limitations or advantages of a given medium and how does that impact the program?
- Will the media or materials work in a distance education environment?
- Are there sufficient technical resources available for production, delivery and utilization?
- Do the presenter(s) and development team have experience with designing, producing, and delivering distance education?

Once a program planner has determined how to effectively match the media and materials with the chosen technology, he or she can plan how to use the materials.

Utilize Materials

In the fourth step of the ASSURE model, the program planner is advised to plan how materials will be used, identify the time constraints, prepare the class and facilities, and present the materials. There is no difference when using distance education technology except that there are more items to be planned. In addition to what a traditional classroom environment requires, distance learning needs:
- facilities containing compatible equipment,
- on-site or available technical help,
- local administrators and/or trained facilitators,
- communications capabilities between host and remote sites,
- comprehensive directions for using materials at a remote site, and
- procedures for handling technology problems.

Utilization of learning materials creates a condition for actively involving the learner through performance.

Require Learner Performance

The fifth step in the ASSURE model requires planning for learner performance and feedback. The difficulty imposed by distance education lies in the logistics. Quite simply, the program planner must consider how to facilitate learner practice, performance, and provide feedback when the learner is removed from the instruction source.

Options for the program planner to consider include: (1) requiring performance during instruction, (2) requiring performance after instruction. Additionally, the plans need to specify the source of feedback as either pre-programmed, locally originated, or transmitted live from the source via fax, phone or computer network.

Evaluate and Revise

ASSURE's final step is evaluating and revising instruction. The ASSURE model prescribes three types of evaluation as a necessary part of a systematic learning process. These are evaluations of learner achievement, media and methods, and instructional process. Although all three evaluation areas are important for every educational program, the inherent nature of a distance education program emphasizes learner achievement and media as critical. In planning a distance education program, two questions must be answered. First,