Programs in Instructional Technology and Distance Education

Assignment Evaluation Form

<table>
<thead>
<tr>
<th>Study Area (Courses):</th>
<th>Introduction to Instructional Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due Date:</td>
<td>October 25, 2001</td>
</tr>
<tr>
<td>Student Name:</td>
<td>Susan A. Lancaster</td>
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<td>Cluster:</td>
<td>18</td>
</tr>
<tr>
<td>Faculty Name:</td>
<td>Dr. Atsusi Hirumi</td>
</tr>
<tr>
<td>Today's Date:</td>
<td>October 25, 2001</td>
</tr>
<tr>
<td>Assignment Number/Title:</td>
<td>Assignment #1</td>
</tr>
<tr>
<td></td>
<td>Needs Assessment and Goal Statement</td>
</tr>
</tbody>
</table>

Faculty Decision:  
- [ ] Additions Required
- [ ] Rewrite Required
- [ ] Approved/Grade: ________
- [ ] Below Standard
- [ ] Midterm Examination
- [ ] Final Examination

Next Response Due:  

Comments:
Needs Assessment Report and Goal Statement
Assignment #1

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A need can be defined as a discrepancy between an existing set of conditions and a desired set of conditions (Gall, Borg, Gall, 1996). Needs assessments help to identify problems (Dick, Carey and Carey, 2001) and provide the first step in a systematic exploration of the way things are and the way they should be (Rouda, 1995). Creating and implementing a needs assessment establishes what learning will be accomplished and what changes in behavior and performance are expected (Rouda, 1995). A needs assessment provides an opportunity to collect information and craft ideas. The information generated can clarify issues and provide a focus on performance (Swist, 2001). The focus for this course is the planning and design of instruction and a needs assessment provides an appropriate first step in this systematic process.

A gap analysis checks to determine which performance standards are being implemented or whether it is time to set new standards (Rouda, 1995). After the problem has been identified, plans are made to identify the causes for the problem. Possible solutions and growth opportunities are offered to solve the problem. Several models are available for use in determining the needs. For example, using modifications of the ADDIE model provides an overview of the six elements that an effectively designed instructional program should contain. (Rossett, 1987). The ADDIE model consists of Analysis, 1Design, 2Development, Implementation, Evaluation, plus Maintenance. (Rossett, 1987). Gall, Borg and Gall (p. 702) suggest using the CIPP model formulated by Stufflebeam. CIPP is an acronym for the four types of educational evaluation including: Context evaluation, Input evaluation, Process evaluation and Product evaluation.
Kentucky has implemented a Technology Master plan as a part of the Kentucky Education Reform Act (KERA). “Schools are hiring dedicated technology resource teachers and have found the most effective model for raising levels of teacher technology competency, as well as teacher’s self-confidence in their ability to plan for and manage technology in the classroom” (Kentucky Education Technology Master Plan for Technology, 2000). Technology resource teachers (TRTs) provide job embedded professional development in assisting teachers with integrating technology activities into content based instruction. In July, this author assumed new job responsibilities, which included meeting with TRTs in the eight geographic regional areas in Kentucky. The TRTs meet about once every two months. During the first meeting of the year with each regional group of TRTs, preliminary introductions were made, basic information was gathered and future meetings were planned.

In preparing for the second round of TRT meetings, a needs assessment could provide helpful information in determining the direction for the future meetings. The purpose of the needs assessment would be to clarify the instructional goal, help identify the participant’s training wishes, and set forth a productive plan for the meetings for the year.

Who are the stakeholders in the needs assessment and why conduct the needs assessment?

Dick, Carey and Carey (2000) state that a parallel analysis of the learner and the context in which they will learn the skill and use the skill will occur in addition to analyzing the instructional goal. Information about the learner helps to shape subsequent steps in the systematic design process. Gagne’s description of learner outcomes
establishes the learner hierarchy (Reiser, 2001). Gagne indicated that certain skills have a hierarchial relationship, “so that in order to readily learn to perform a superordinate skill, one would first have to master the skills subordinate to it” (Reiser, 2000, p 60).

Instruction should be designed so as to ensure that learners acquire subordinate skills before they attempt to acquire superordinate ones.

All stakeholders should be included in a needs assessment in order to determine the subordinate skills necessary in order to learn the superordinate skills. Teachers who attend TRT meetings would be included in this analysis. However, other stakeholders to consider would include:

1. Teachers who work with other teachers to provide technology resources, but who may not be given (by their district) the title of technology resource teacher
2. Students who will directly benefit from the integration of technology activities into content area classes
3. Administrators who make decisions about budgeting the TRT positions
4. Parents, who as member of Site Based Decision Making Councils (SBDM), are vested in the success of school decisions and practices
5. Community members who look to today’s students as the work force for tomorrow and rely on students learning 21st century skills
6. The author who will use the information to develop programs based on the results of the information gathered

What data should be collected for a needs assessment and when should it be collected?

Data that would be appropriate to collect for this project would include, but not be limited to, conducting site visits and/or observations; plan for an initial survey of the
stakeholders; create face to face opportunities for getting to know the stakeholders as individuals, and establishing and maintaining ongoing contact with the Technology Resource Teachers with whom year long meetings will be held (Hurami, 2001).

The appropriate time to conduct the needs assessment would be at the second meeting of the technology resource teachers. After the initial introductory regional meetings would be the most suitable time to assess the stakeholders. As it is important to ensure the buy-in and participation of the group throughout the year, the author must work toward being inclusive and sensitive to the needs and will of the group (Hurami, 2001). Regular meetings with the TRTs should aspire to provide suitable information and meet the needs of the attendees.

Robert Stake, according to Borg, Gall and Borg (p. 704), pioneered the qualitative approach to educational research. Stake’s approach focuses on the concerns and issues of the stakeholders. Borg, Gall and Borg (p. 704) cite *Effective Evaluation* by Guba and Lincoln and identify four major phases that occur in responsive evaluation:

1. Initiating and organizing the evaluation
2. Identifying key issues and concerns
3. Gathering useful information
4. Reporting results effectively and making recommendations

How should data be collected?

Hirumi (p. I-7) indicates five steps in determining the “how”.

1. Identify results oriented performance problem (OEM-Kaufman)
2. Plan Needs Assessment and develop instrument
3. Determine optimals, actuals, causes and solutions (Rossett)
4. Generate alternative solutions

5. Select and recommend solution system

In determining the “how” with the TRTs, it would be wise to use multiple methods to collect information. Possible quantitative methods to use might include: corresponding with small groups of TRTs, developing focus groups, posting topics on a list serve, sending requests via e-mail for reflection and responses, and distributing surveys to generate information. The goal statement would be derived from the responses. Alternatives would be explored and considered. For those TRTs who do not respond, explanations could be offered that the solutions were based on the research, documented best practice, an assessment of current practice designed to determine and achieve a common purpose (Hurami, 2001).

**Proposed instructional goal**

After collecting and analyzing the information gathered in the needs assessment, an instructional goal would be developed. The instructional goal would define what the learner can do. For the hypothetical purposes of this assignment, after the completion of a needs assessment, a possible goal might be: The Kentucky technology resource teachers will integrate technology in to content area classes by sharing resources with colleagues. The evidence of their success will be student-work products generated to support lesson plans which teachers develop utilizing technology resources.

**Alternative instructional goal**

An alternative goal might state that technology resource teachers will use the bi-monthly meetings to establish a networking support system to assist in their implementation of a seamless infusion of technology resources into content-area classes.
Conclusion

Technology Resource Teachers will benefit from a needs assessment designed to determine what information can be presented at their meetings which will enable them to work smarter, not harder. Software, web resources, connecting with other TRTs and development of a collegial support system are a few of the possible items which a needs assessment might generate. It is anticipated that by taking this first step, the results will be better productivity, greater confidence and enhanced job performance from the technology resource teachers as they work with their peers to get content related technology into the hands of the students.
References


