Teaching Education Students Through Interactive Scenario-Based Course Design

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Introduction

The types of challenges that early childhood educators face in the classroom are often complex and multifaceted. In addition to determining how to best meet the educational needs of the students, educators must also balance the concerns of parents and the community while working within local, state, and federal guidelines. To prepare future educators for the types of challenges they were likely to face, as well as to make learning experiences more meaningful and relevant for students, the chair of an early childhood education department adopted a scenario-based approach in redesigning online courses for early childhood educators. This paper presents an overview of scenario-based instruction and describes how the approach was integrated into a course on the interrelation of child development, the family, and the community. While the instructional context may make it unique to the course, the principles underlying the design and development of the course, as well as the approach taken to integrate scenario-based instruction are applicable across a broad range of educational contexts.

Scenario-Based Instruction

Scenario-based instruction fits within the framework of case-based instruction, in which learners are presented with descriptions of authentic events or situations and asked to solve one or more problems embedded in the case (Callanan & Perri, 2006; Darr, 2000; Godat, Yahaya, Johnassen, Mayes, & McAleese, 1993; Hafler, 1997; Singh, & Euler, 2007; Riesbeck, 1996; Smith & Ragan, 2005). Scenario-based instruction has been used across a variety of instructional contexts including business (Riesbeck, 1996), crisis management (Godat, Yahaya, Singh, & Euler, 2007), conflict management (Callanan & Perri, 2006), and health-related areas (Darr, 2000). Scenario- or case-based approaches can be particularly beneficial for helping learners develop the knowledge and skills they need for addressing realistic types of problems they might encounter in professional practice (Johnassen et al., 1993; Riesbeck, 1996; Smith & Ragan, 2005). The nature of the interaction embedded in the approach can also serve to promote higher order thinking and reasoning. In addressing the affective aspects of learning, scenario-based approaches can also enhance the learning experience by making instruction more meaningful and relevant for students.

Just as the presentation of the scenario and the representation of the problems to be addressed can pose educationally challenging learning situations for learners, designing scenario-based instruction can be challenging for designers and instructors. The types of instructional problems represented in scenario-based instruction can range from well-structured to ill-structured problems (Smith & Ragan, 2005). Well-structured problems typically have an explicit given state and goal state as well as a solution that can be selected from a set of definable solutions. In contrast, ill-structured problems are “problems for which much of the given and goal states are unknown, vague, or extremely situation-dependent” (Smith & Ragan, 2005, p. 219). Developing effective scenario- or case-based instruction requires capitalizing on the structure of the problem without providing too much or too little information and instructional scaffolding for the learner (Armstrong, 1997; Hafler, 1997; Riesbeck, 1996; Smith & Ragan, 2006).
also requires balance to help ensure that the scenario being presented is neither too contrived to seem plausible nor too complex to interfere with meeting the desired learning outcomes.

The approach presented in this paper integrates scenario-based instruction into a course encompassing a range of well- and ill-structured instructional problems. The approach also spans a variety of content domains (including as child development, family dynamics, and community involvement) woven together through an overarching thematic scenario.

Course Overview

The Child, Family and Community course examines the dynamics of family life, family challenges and family stresses, including their impact on child development. It examines the cultural contexts in which children live, the relationship between parents and schools, and the personal and cultural filters through which students view children and the process of schooling. Emphasis is placed on the current social, political, legislative, and economic status of children and their families and the crises they face. Students study existing community interventions that support children and their families and discuss the issue of public policy and private advocacy.

Integration of Scenario-Based Instruction

Scenario-based instruction was integrated into the course at two levels: at the course (macro) level and at the instructional strategy (micro) level (refer to Figure 1).

![Figure 1. Graphical depiction of the levels at which scenarios were integrated into the course](image)

At the macrolevel, the scenario presented in the course was one in which students were part of a community called Sheridanville (named after the community’s founder). The course was framed both thematically and structurally around the community. Within WebCT, the homepage of the course was a frontal view of the town center represented as an image map with clickable buildings and structures. By clicking various buildings in the community, students could access course-level information (such as the syllabus, schedule, and grade book) as well as the weekly instructional modules. For example, one of the buildings in the community was a public library, which students could click to access a listing of resources to further their learning in the course. Due to size limitations within the WebCT interface, the interface was divided structurally into three image maps representing different districts in the community: the town center, a business district, a residential district, and a retail district. By clicking street signs in the image, students could travel virtually to the other districts and then interact with the structures in that district. Thematically, the districts represented various types of influences on children and their education. A description of the function of some of the structures in the course is presented in Table 1.
Table 1. Sample list of structures used to represented elements of the course

<table>
<thead>
<tr>
<th>District</th>
<th>Structure</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town center</td>
<td>Welcome center</td>
<td>Link to the course syllabus</td>
</tr>
<tr>
<td></td>
<td>Community events sign</td>
<td>Link to the course schedule</td>
</tr>
<tr>
<td>Town center/business district</td>
<td>Fountain within rotary</td>
<td>Link to the overview for the weekly lesson</td>
</tr>
<tr>
<td></td>
<td>City hall</td>
<td>Link to instructional module on community ecology</td>
</tr>
<tr>
<td></td>
<td>Fire department</td>
<td>Link to course discussions</td>
</tr>
<tr>
<td></td>
<td>Police station</td>
<td>Link to grades</td>
</tr>
<tr>
<td>Business district</td>
<td>Post office</td>
<td>Link to WebCT email</td>
</tr>
<tr>
<td></td>
<td>Savings bank</td>
<td>Link to self-graded assignments</td>
</tr>
<tr>
<td></td>
<td>Public library</td>
<td>Link to course resources</td>
</tr>
<tr>
<td></td>
<td>Coffee shop</td>
<td>Link to discussions</td>
</tr>
<tr>
<td>Retail district</td>
<td>Shopping mall</td>
<td>Link to instructional module on the ecology of mass media</td>
</tr>
<tr>
<td>Residential district</td>
<td>Elementary school</td>
<td>Link to instructional module on the ecology of school and teaching</td>
</tr>
<tr>
<td></td>
<td>Child care center</td>
<td>Link to instructional module on the ecology of child care</td>
</tr>
</tbody>
</table>

To help orient students to the community, the instructor introduced the course theme and explained the course structure in an orientation module presented in the first week of the course. Explaining the navigational structure of the course was important not only for informing students of the interactivity of the interface but also for helping students overcome technology concerns at the onset of the course and focus on the functional aspects of the interface. For students who preferred using a textual interface, all of the course information and instructional modules could be accessed via text links on the course menu in WebCT.

As part of the course scenario, students played the role of members of a task force commissioned by the community’s mayor (the instructor) to address various educational issues in the community. At the beginning of each week, the instructor provided a mayor’s message formatted as a letter addressed to members of the task force. Key components of the mayor’s messages, which served as an introduction and advance organizer for the weekly lesson, included an overview of the issues being presented in the lesson, statements connecting the topics in the lesson to larger contexts or to prior instructional modules, learning outcomes for the lesson, and announcements related to the lesson.

Within each weekly lesson, scenario-based instruction was enacted at the instructional strategy level. Students were presented with a scenario involving a fictitious child and family in the community and asked to address one or more educational issues related to information presented in the textbook and other readings. Structurally, the instructional modules contained four sections: (a) the scene, (b) the situation, (c) resources, and (d) activities. The first two elements (the scene and situation) essentially explained the scenario. The function of the scene was to provide background information for the scenario. The types of information included in the scene were a physical description of the setting (relevant places in the community) and a description of past or current events taking place in the context of the scenario. In the situation section, various vignettes directed students’ attention to the specific aspects of the scenario to be examined. To help students connect the issues they were confronting in the scenario to ideas presented in the textbook and the lesson, there were statements included in each vignette to explain how the topic related to the scenario. The resources section contained a list of print-based and online resources directly
related to the issues presented in the lesson and subdivided by topic. The activities section contained a description of the tasks and assignments for the lesson.

Included in the activities were discussion questions framed to help students to assimilate the information being presented and apply theory to the contexts of the scenario. For example, in one of the discussions, students were asked to explain how a particular family’s structure had influenced their parenting styles. As the capstone assignment for each week, students were asked to draft a set of recommendations for ways in which Sheridanville could help support its families. Students then shared their recommendations with the other members of the task force and critiqued the recommendations. This process helped students process the information being presented as well as use theory and evidence to support their ideas.

The weekly activities also helped students prepare for the capstone assignment for the course, which was an in-depth sociological and contextual analysis of a community and a family within that community. Using a case study approach, students were to choose a neighborhood in their own town. They were to write a demographic study of the community, and in particular, the specific neighborhood that they chose. After completing the demographic assessment, they were to choose a family vignette supplied by the mayor (instructor). That vignette told them who they were, how many children they had and what their situation was. For example, they might take the role of a working single mother of 3 children ages 3, 4 and 7. Their job might be a school teacher in the local elementary school. Using their scenario, they were to develop a one-week schedule for the family’s daily activities. In addition, they had to develop an annual budget for their family. Finally, they were to write a summary about the family’s ability to exist in that community based on the income that it has, the resources available to it and the schedule that it has to keep.

Plans to further enhance the course include adding “functionality” to other places in the community, as well as presenting alternative scenarios for graduates and undergraduates to address. For example, using a newspaper box provides a reasonable access point for viewing relevant articles and other published news items that are pertinent to the scenarios being presented in the course.

**Perceptions of the Course**

Feedback elicited from both faculty and students has been positive about the course design. Faculty who have visited and examined the course have commented positively on the creativity of the home page design as well as the scenario based design. They expressed interest about the case-based aspect of the course, and some faculty utilized that aspect in their own courses after reviewing the Child, Family, and Community course.

Students commented positively about the course design and the role playing aspect of the course. One student said, “This course is actually fun! Sometimes I forget that I am working because I am having so much fun playing!” Another stated, “It has been really great to be able to read the research and make connections to real-life experiences. It's been very helpful!” And finally, another student said, “I love the format. I feel as if I am actually making changes on the City Council. You've done a wonderful job presenting this class to us. I really enjoy this type of discussion forum. I was skeptical about it at first, but I have learned to appreciate the more thoughtful nature of it.”

**Discussion**

In developing the Child, Family, and Community course, the designers sought to promote higher-order learning and encourage students to apply theory in addressing the types of issues faced by professionals in the field. Student and faculty feedback as well as student learning outcomes have revealed that the scenario and case-based aspects of the course design have been useful and helpful in achieving the course
goals. Students stated that they enjoyed the course design and found the navigation of the course to be intuitive and engaging. By making the course content and design more meaningful and relevant to the students, the course learning outcomes and goals were achieved in a creative, engaging and powerful manner.

References


Biographical Sketches

**Kathleen Sheridan** is the Chair of the Early Childhood Education Department at National-Louis University. She has expertise in developing early childhood education programs in flexible delivery formats. She brings to this presentation the viewpoint of faculty and department chairs who desire to provide their students and faculty with flexible learning options that meet their needs without compromising learning or motivation.

**Melissa Kelly** is an instructional designer and media developer contracted by the Early Childhood Education Department at National Louis University. She has proficiency in the development of instructional materials for on-campus, online, and blended delivery in the fields of educational research and instructional technology. She also has extensive experience in providing technical support and assistance for students enrolled in online and blended courses. Her perspective represents an intersection of the roles of an instructional designer, media developer, application developer, graduate assistant, and graduate student.