

Real-Life Dilemmas Make Learning Fun

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In October 1990, a 500-year-old oak tree in a field near Blossom Springs, Alabama, was vandalized. Someone used a chain saw to cut a ring around the trunk, cutting off nutrient flow between the leaves and roots. The tree would die unless something was done. Why would someone try to kill a tree? The tree was at the center of a dispute between the owner of the land on which the tree stood and county officials. The county was trying to buy the land for park development. They also were concerned that the tree would be damaged by a nearby highway project. The landowner felt it was her right to do with the land as she wished. The issue of who should own the land, the county or the current landowner, is a real situation and represents a decision case in which reasonable people disagree.

Introduction

A decision case is a synopsis of an unresolved, real-life dilemma. It is based on real information and documentation of circumstances and events surrounding the dilemma (Stanford et al., 1992). When youth participate in a decision case, they are asked to play the role of decision maker: To critically evaluate facts and evidence, weigh issues of concern, and synthesize information. Rather than provide solutions, a decision case sets the stage for youth to generate possible responses, and formulate a decision within the context of a complex, real-life situation.

Using decision cases as a teaching technique gives youth the opportunity to see the relevance of what they are learning to real-world problems. Active participation in decision cases requires youth to learn and exercise important life skills, including abilities to analyze, think critically, solve problems, and make decisions. At a personal level, and in the context of work situations, these life skills help individuals live a productive and satisfying life. 4-H recognizes the need for carefully planned youth development experiences to encourage life skill development while delivering subject matter content in all areas.

Learning through case studies requires the participant to engage in a dilemma that asks relevant questions, thereby promoting interest and motivation (Argyris, 1986; Bocker, 1987; Hudspeth, 1991; Osigweh, 1989). That interest and motivation results in active learning (Beukenkamp & Boverhoff, 1972), facilitates the ability to generate explanations for new information (Alvarez, 1990), and improves communication skills (Barlett & DeLong, 1982). When new skills emerge from the students' own questions and interests, they are more likely to learn successfully (Kohn, 1998). For example, students asked to divide a pizza fairly among themselves are more likely to be interested in the math skills required to solve the problem than students asked to work numbers on a work sheet.

The following information will provide youth educators with a definition of decision

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cases, further explain the benefits of using decision cases as an educational tool, and review the role of the youth educator in the decision case process. Teaching with decision cases is more productive when educational objectives are clear and the educator has the skills to effectively facilitate and guide the learning process.

A History of Decision Cases

Decision cases were established as a classroom technique in the early 1920s and are perhaps best known for their use in business schools, particularly the Harvard Business School. Since then, decision cases have been widely used in subject areas in which the need for critical analysis and problem-solving skills have long been recognized, such as business, law, medical schools, and international affairs. More recently, decision cases have been used in teacher education, administrative training, social work, leadership development, and other areas requiring technical decision making such as engineering and agriculture (Silverman & Welty, 1994).

Decision cases are sometimes confused with case studies. The term “case study” refers to cases that are primarily descriptive and retrospective in nature. Unlike decision cases, case studies ask students to critique a decision already made.

Decision cases focus on an actual situation or real dilemma, and the need for decisive action makes decision cases unique. Decision cases are also called “problem-solving” cases because the narrative explaining the dilemma does not include the final decision.

Decision Cases as Tools to Facilitate Skills Development

Growth and development in stages is continuous from birth. There is not an exact set of life tasks to accomplish or skills to master at any given age, as each child is unique and will develop at an individual rate. However, the stages of development are constant through a continuum of sequential development. Recognizing and understanding these stages and their characteristics can help educators plan and prepare successful learning experiences for youth.

Because decision cases are designed to promote the formal or abstract thinking skills involved in problem solving and decision making, a skilled educator must consider whether youth are prepared to participate and enjoy such an experience. For most youth, this will

probably occur during adolescence (Hendricks, 1996).

During adolescence, youth tend to reach higher levels of abstract thinking and problem-solving, and are able to classify information for use, compare and choose among several alternatives, and identify a plan of action for problem resolution. It is important that educators understand the sequential nature of development so they can use decision cases to challenge youth at their highest ability level, without frustrating them by expecting too much.

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Decision cases allow youth to:

- learn about a subject in which they are interested and curious;
- see the relevance of the information in real-world situations;
- actively participate in the learning process, think independently, and question facts;
- listen to viewpoints of other youth, especially their friends (decision cases are popular with youth because they allow them to spend time with their friends); and practice defending their own decisions in a non-threatening environment.

Although use of decision cases has many benefits, there are some things youth educators should consider before implementing them in the classroom:

- learning progress is slower as youth are more involved in the learning process;
- the educator should be sure that youth have a basic knowledge of facts and the required maturity level;
- the process does not require youth to implement their decisions (however, the experience may spur youth to take action related to issues involved in cases, such as promoting responsible actions, writing letters to legislators, or educating others about issues); and
- the issues involved in cases often have to be simplified which may lead to oversimplification. Only the information the case author includes is available for consideration (Stanford et al., 1992).

Interdisciplinary Nature of Cases

The one-room school, common in nineteenth and early twentieth century America, represented a type of interdisciplinary education in which students were exposed to multiple subjects taught at various grade levels. True interdisciplinary education, however, is more than exposure to multiple disciplines. It involves examining how subject matters interconnect and affect one another, and understanding how insights or information gained from one subject enhances the understanding of another.

Truly interdisciplinary education is rare. In formal settings, students move from class to class usually with little emphasis on how one class or subject relates to another. Although real world problems seldom unfold one subject at a time, most education systems leave integration of subject areas to students. Almost any issue, problem, or dilemma requires integrating knowledge and concepts from many subject areas to make a decision. Decision cases encourage youth to think, discuss, and act in an interdisciplinary manner (Simmons, 1994). Decision cases thus fit into social or nonformal education definitions (Walker, 1998), as wisdom and knowledge passed from one generation to the next and past experience is integrated into the development of specific life skills.

Role of Youth Educator in Decision Cases

At the start of the decision case process, youth read a narrative presenting the situation, the significant players, and the problem. The educator's role should be minimal to encourage student-centered learning. Youth must develop a strategy to learn more about the issues through interviews with experts, and information searches using the library, technology, or any other resource with reliable information. Educators can guide the process by helping youth concep-

tualize and articulate their thoughts, by asking leading questions to identify resources, and helping youth critically evaluate information sources for validity.

The discussion that ensues involves an identification of the issues involved, perspectives of the significant players, the decision that needs to be made, and options for action. At this point in the decision case, teaching can focus on organizing discussion around solving the problem. This often involves group discussions to analyze the situation and evaluate solutions. The group process is based on the premise that several heads are better than one, and the social interaction leads to self and social development. The facilitator does not teach as the traditional “sage on the stage,” but instead guides the discussion by asking probing questions, providing reference or bridging statements, recording the discussion, and recognizing participants’ contributions. At the end of the discussion, youth can make a plan and, if appropriate, take action related to issues in the case. For example, a case on contamination of compost material may prompt youth to promote safe composting in their community.

To prepare for decision case discussions, educators must familiarize themselves with issues and background information related to the case, identify discussion objectives, prepare a question outline (most cases include teaching notes with questions and answers), arrange the classroom in a horseshoe shape to facilitate discussion, and prepare a chalkboard or flipchart outline.

Teaching with decision cases can be intense. Some cases precipitate arguments and some participants will become frustrated when the facilitator insists that there is no right answer. Good cases have several decision possibilities



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and participants quickly learn that, although more information would be helpful and no perfect solution exists, a decision must be made. This is the nature of real world decision making and problem solving. By exchanging information through discussion, participants are exposed to a variety of viewpoints which they may not have considered previously.

Evaluation of the decision case process provides feedback for educators and youth about the effectiveness of meeting instructional goals. Meaningful assessment depends on identification of clear, relevant, and measurable instruction goals. Educators should identify the skills and knowledge they are trying to teach and be able to determine whether students have acquired the identified skills and knowledge.

Several assessment tools have been used in decision case pilot projects. These include completion of a case matrix assessing how well youth organize what they have learned and whether they understand the issues of the case. The matrix is a simple two-dimensional diagram that organizes information and illustrates relationships. The matrix requires youth to sort information into categories such as beliefs, val-



After discussion youth can make a plan and take action.

ues, and goals of the decision case's significant players. Educators quickly see whether youth have basic comprehension of the facts and principles in the case.

Another assessment tool is the pro and con grid. Similar in format to the case matrix, the grid allows youth to identify possible actions for significant players in the case, as well as advantages and disadvantages of the plan or option. This tool assesses analytic skills, and ability

to draw inferences and make decisions. In addition to its use for assessment, the grid allows youth to realize costs and benefits of solutions in a structured manner.

Concept mapping can be used to assess whether youth have successfully synthesized and evaluated knowledge. Educators can determine whether youth are thinking holistically and are seeing the whole case as well as its various parts. Opinion polls can be used to assess whether the case experience has influenced youth's awareness of their attitudes and values about issues related to the case.

Decision Case Experiences

Several decision cases involving food production, nutrition and environmental sciences have been developed for secondary education. Development took two to three years and involved teachers, University faculty, and students. The cases have been used as performance assessment packages for the Minnesota Graduation Standards process.

An interactive web site for middle school students with agricultural, food and environmental science decision cases is being developed with the assistance of youth educators. In this project, technology provides a viable means to facilitate student-centered learning that is possible as students research cases and learn related subject matter. Another project currently underway requires youth to work in student teams with teachers and Extension educators to develop water quality decision cases and present the cases in local community forums.

Summary

Decision cases are a valuable, participatory learning tool. Youth enter the process with prior experiences and knowledge on which to build a new understanding of subject matter. The decision case experience encourages life skill development while delivering new subject matter. Decision cases encourage the development of problem-solving and decision-making skills through practice, and are positive and enjoyable for youth. The effectiveness of decision case experiences in meeting instructional goals can be greatly enhanced by skilled facilitators.

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