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## ABSTRACT

Designed to improve the critical thinking and decision-making skills of 10-to 13-year old students through instruction in basic economic concepts, the Agency for International Technology (AIT), the Canadian Foundation for Economic Education (CFEE), and the Joint Council on Economic Education (JCEE) are undertaking a project which will use eight 15-minute video programs suitable for broadcast. In each program, students observe youngsters their age in situations that illustrate critical thinking and decision-making strategies involving one or more economic concepts. Two double-sided videodisks present the same visual images as the video and also include enhancements that permit learners to interact with the material. The project also offers a comprehensive teacher training component, and a variety of print materials for teachers and trainers. The prospectus outlines additional information about the project including: an overview, a rationale, a foundation of success, series goals, series content, project components, summative evaluation, operational aspects of the project, and 11 references.

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# Critical Thinking and Decision-Making Skills through Economic Education

August 1991

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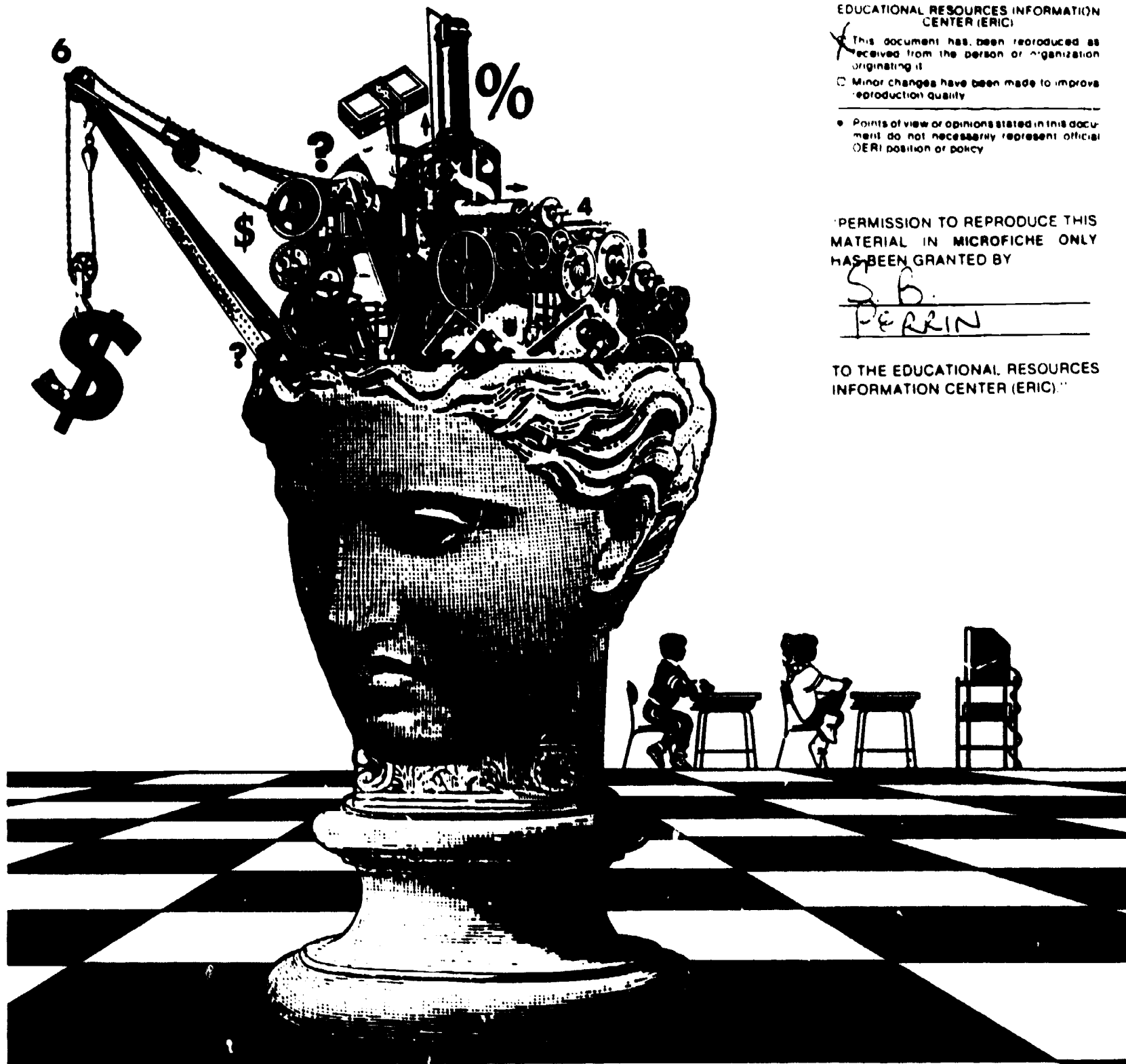
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AGENCY FOR INSTRUCTIONAL TECHNOLOGY

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PROSPECTUS

# **Critical Thinking and Decision-Making Skills through Economic Education**

**August 1991**

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# Overview

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**B**ased on a proven record of success, the Agency for Instructional Technology (AIT), the Canadian Foundation for Economic Education (CFEE), and the Joint Council on Economic Education (JCEE) are undertaking a project that will improve the critical thinking and decision-making skills of 10- to 13-year-old students through instruction in basic economic concepts. The project will use both video technology, which is nearly universally available in today's classrooms, and videodisc technology which is rapidly emerging. A comprehensive teacher training component will be a key element, and a variety of print materials will be provided for teachers and trainers. Activities will be included for teachers of social studies, language arts, and mathematics, thus ensuring widespread use of the materials.

The project will include eight 15-minute video programs suitable for broadcast. In each program, students will observe youngsters their age in

compelling situations that illustrate critical thinking and decision-making strategies involving one or more economic concepts. High-quality animated segments will elaborate and emphasize key points.

Two double-sided videodiscs will present the same visual images as the video and also include enhancements that will permit learners to interact with the material. These Level I videodiscs will include the increasingly popular barcode option. Because of their highly interactive characteristics, the videodiscs will be particularly useful in enabling students to develop and practice critical thinking and decision-making skills.

Use of the two delivery systems—video and videodisc—will provide flexibility for teachers and learners now and in the future.

The project will be developed with a combination of public and private-sector funds. It will be available for initial use in Spring 1993.

# Rationale

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**M**ore and more alarms are being sounded that North America's students are not adequately prepared for the demands of the workplace. Recently released reports from the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS)<sup>1</sup> and the Canadian Federal Government<sup>2</sup> document the inadequacy of current instructional practices in preparing workers for an increasingly competitive world. Beyond decrying the current system of education, the SCANS report proposes a significant restructuring of school, including an early emphasis on all students "learning to think."

If the ambitious goals of these reports are to be accomplished, teachers must be provided with

well-designed materials that enable them to address critical thinking and decision-making skills in contexts that are meaningful to learners. Bold approaches that bridge academic disciplines and embrace technology are needed.

AIT, JCEE, and CFEE have proven that they can develop and implement innovative programs to achieve ambitious objectives. The proposed new series will use newer technology, interdisciplinary curriculum approaches, and creative assessment strategies to meet the urgent need for materials that teach effective critical thinking and decision-making skills based upon economic analysis.

# A Foundation of Success

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In 1978, a 15-program economic education series, *Trade-offs*, was introduced by the Agency for Instructional Technology in association with the Joint Council on Economic Education and the Canadian Foundation for Economic Education. *Trade-offs* was designed to improve the economic understanding and decision-making skills of 10- to 13-year-old students. The series made it possible to achieve significant gains in the quantity and quality of economics taught to and understood by students in the target age group. A 1981 paper<sup>3</sup> that summarized 15 independently conducted studies of the series concluded that

- the series significantly improves students' knowledge of and attitudes toward economics
- the series significantly improves teachers' attitudes toward economics
- student cognitive and attitudinal gains were further increased with teacher inservice training
- teacher attitudinal gains were further increased with inservice training

Given these results, it is no surprise that *Trade-offs* became one of the most successful projects in the history of instructional television. At its peak, the series was broadcast on more than 280 public television stations and was widely distributed by the 53 member agencies of the original consortium

(still a record number for AIT consortium participation). The series was supported by an unprecedented number of teacher training programs throughout the United States and Canada; more than 200,000 teachers were trained in these programs. The success of *Trade-offs* led to the development of the *Give & Take* series for older students and the *Econ and Me* series for younger students.

In spite of its overwhelming success, *Trade-offs* is now succumbing to age. A 1990 study<sup>4</sup> revealed that after 13 years the effectiveness of the series is diminishing. It was reported that fewer public television stations were broadcasting the series, and fewer centers and councils for economic education were conducting training for teachers. Further, teachers indicated that many of the visual features—such as hairstyles, dress, and prices—were dated, and students were distracted by these elements.

The study concluded that *Trade-offs* "is beyond its apex of usefulness." The study further noted, "Because it is one of the few resources of its kind for the targeted grade levels, a void will exist if it is not replaced."

Clearly, *Trade-offs* will suffer a slow but steady death if not revived. New materials, incorporating current curricular approaches and updated technology, are needed to maintain and extend *Trade-offs*' impressive record of success.



## Series Goals

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**C**ritical thinking is a way to analyze complex events. Decision making is a means of acting on that analysis. Both are nurtured by the economic way of thinking emphasized in the Joint Council's *Master Curriculum Guide in Economics: A Framework for Teaching the Basic Concepts*.<sup>6</sup> Indeed, the decision-making grid explained and illustrated in the *Framework* lends itself particularly well to developing the type of critical thinking skills that will be emphasized in the new series.

The series will have three main goals.

1. To enhance students' critical thinking and decision-making skills.
2. To improve students' understanding of basic economic concepts.
3. To increase the likelihood that students will develop and exhibit responsible economic behavior.

To meet these goals, the video and videodisc components of the project will feature compelling

situations in which target-age youngsters demonstrate effective critical thinking and decision-making skills. Carefully selected economic concepts will be presented in contexts that are realistic and meaningful to 10- to 13-year-old students.

Students in the target age group have reached a level of maturation when critical thinking and effective decision-making skills are increasingly important. Carefully selected economic concepts will be used in a multidisciplinary framework to focus on developing these skills in video-based situations that are realistic and meaningful to 10- to 13-year-olds.

The focus on critical thinking and decision-making skills using an economics-oriented, multidisciplinary approach will facilitate the series' integration into the existing curriculum of grades 5 to 8 in U.S. and Canadian schools. This interdisciplinary infusion will increase the likelihood that the series' goals will be widely achieved.

# Series Content

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**D**ecision making that weighs alternatives against goals and criteria will help students recognize when advocates of particular alternatives mention only the advantages but not the disadvantages or costs of their own proposals. This illustrates the type of critical thinking skills to be emphasized in this series. Although the systematic evaluation of alternatives does not assure unanimity when goals conflict or evaluations differ, the technique clarifies the differences and relative costs of alternatives.

Within the themes of critical thinking and decision making, each video will focus on at least one carefully selected economics concept, to be detailed during the design stage of the project. Some basic concepts may appear in more than one video, and some videos may use more than one concept. Concepts that foster critical thinking and decision-making skills within an interdisciplinary framework will be emphasized in the series.

Below is a list of preliminary topics and a brief description of the rationale for each. These topics may be modified in the instructional design phase; they will certainly be extended and refined. This list is offered to suggest the concepts that are most likely to be included in the new series.

- **Opportunity Cost**—This is the most valuable opportunity that is lost when a decision is made to do one thing instead of another. This concept is crucial in evaluating alternatives. It is a key component in developing critical thinking and informed decision-making skills in a variety of contexts.
- **Marginal Analysis**—Many decisions do not involve all-or-nothing choices. It is often possible to substitute a little more of one thing for a little less of something else. Comparing additional costs and additional benefits of various choices at the margin is an important aspect of critical thinking that often helps make better decisions.
- **Interdependence**—Decisions in one situation often affect decisions in other, sometimes seemingly unrelated, situations.

Like marginal analysis, an awareness of possible indirect (interdependent) effects is an important aspect of critical thinking that often helps make better decisions.

- **Exchange**—Either directly through the often cumbersome process of barter, or indirectly through the use of money, exchange helps increase productivity and expand choices. In turn, increased productivity and expanded choices make decision making and opportunity costs less painful.
- **Productivity**—Productivity is the amount of output (goods and services) produced per unit of input (resources) used. An increase in productivity means producing more goods and services with the same amount of resources, producing the same amount of goods and services with fewer resources, or a combination of both. As indicated above, increased productivity expands choices, and expanded choices make decision making and opportunity costs less painful.
- **Money**—Money, either in the form of currency or checking deposits, serves both as a medium of exchange and a unit of account. As a medium of exchange, money facilitates specialization and the division of labor, which are among the main ways of increasing productivity. As a unit of account, money facilitates the comparison of the costs and benefits of alternatives. Such comparisons lie at the heart of critical thinking and effective decision making.
- **Markets and Prices**—Markets are institutional arrangements that enable buyers and sellers to exchange goods and services. Prices are the amounts of money that people pay in exchange for a unit of a particular good or service, e.g., \$2.00 a pound, \$12.00 an hour, \$.50 a quart, etc. The ratios that exist between various prices are called relative prices. Relative price ratios facilitate the comparison and evaluation of alternatives, and thus enhance critical thinking and effective decision making.

In the series, the degree of detail and sophistication required to deal with the many complex and interrelated economic concepts that bear on the larger concepts of markets and prices will be determined at the design stage. The guiding principle will be to focus primarily on those concepts that contribute to critical thinking and effective decision making by 10- to 13-year-old students in situations that are realistic and meaningful to them.

Students who complete the entire series will also gain an understanding of the broader concept of an **economic system**, defined as the collection of institutions, laws, activities, controlling values, and human motivations that provide a framework for economic decision making.

In summary, each lesson will emphasize one major economic concept. Each lesson will also provide opportunities for students to practice critical thinking and decision-making skills.

## Interdisciplinary Infusion

Critical thinking and effective decision-making skills are crucial in every discipline and must be **infused** into routine learning activities. In fact, interdisciplinary curriculum coordination is a growing trend. According to the National Middle School Association,<sup>6</sup> 70 percent of all middle schools

provide formal planning time for interdisciplinary curriculum coordination, and the trend is growing.

Therefore, project materials will utilize an interdisciplinary approach. Structured activities will be provided in the teacher's guide for social studies, language arts, and mathematics teachers. This approach will provide targeted utility for specialist teachers and maximum flexibility for teachers who are in self-contained classrooms. It will also facilitate the desired outcomes of improving critical thinking and decision-making skills while increasing the likelihood of widespread use of the materials.

## Relationship to *Trade-offs*

This proposed new series is viewed as a project independent of *Trade-offs*; although it is inevitable, and even desirable, that some of the most important basic concepts will be incorporated in both series. Introduction of the new series will not preclude continued use of *Trade-offs* by those who wish to do so. Realistically, however, teachers who have been long-time users of *Trade-offs* will probably be drawn to the updated curricular and technological approaches of the new series. Further, the interdisciplinary approach of the new series should attract additional teachers, and help improve the critical thinking and decision-making skills of a whole new generation of students.

# Project Components

The project has three major instructional components—a student component, a teacher component, and a teacher training component. There will also be a promotion and information component. Materials will be developed for each of these components.

## Student Materials

The heart of the project will be a series of eight independent video programs designed to capture and maintain the attention of target-age youngsters. These programs will be issued in both linear video and interactive videodisc formats. Why these two formats?

Research for *Trade-offs*<sup>7</sup> and *Give & Take*,<sup>8</sup> a project for older students, has shown that television is an effective medium for teaching economics to students. Further, research on interactive videodisc use in economics education<sup>9</sup> indicates high levels of learning, efficient use of time, and high rates of student and teacher acceptance. The combination of the two technologies in this project provides flexibility for teachers now and in the future. For example, a teacher may initially use the video format but switch to the videodisc format as the equipment becomes available. Or, a teacher could use the video format for large-group instruction and the videodisc format for individual instruction.

A description of the two formats follows.

### Video Version

The video version will include eight programs of 15 minutes linear running time each, a length that allows teachers enough time to conduct pre- and post-viewing activities during a regular class period. The programs will be non-sequential and may be shown in any order desired. They will be closed-captioned for the hearing impaired and suitable for broadcast.

The programs will feature live-action dramas with target-age youngsters in realistic and compelling situations. The key economic concepts will

be elaborated in high-quality animated segments. This format—live-action dramas punctuated with focused animation—proved successful in the original *Trade-offs* and the more recent *Econ and Me* series for younger students. In addition, unobtrusive on-screen prompts will provide structured opportunities for the teacher to stop the program for clarification, discussion, and worksheet activities. This technique proved useful in the *Econ and Me* series.

The following is a hypothetical video-based lesson on the concept of Opportunity Cost. This description is provided to give a sense for the flow of such a lesson. More complete details of the activities and story line will be developed during the design and scripting stages of the project.

- The classroom teacher introduces the lesson by asking students to describe situations in which they have had to make a choice among products or activities. She probes for the process that students used to make their decision. Detailed suggestions for approaching the introduction will be provided in the teacher's guide.
- The video program begins. Critical thinking and decision-making skills are modeled by characters who are confronted with choices in their daily lives. The program is played until an unobtrusive prompt appears. At that point, the teacher either stops play and selects discussion questions from the guide that focus on decisions faced by the characters, or allows the program to continue.
- The concept of Opportunity Cost is defined and illustrated in a high-quality animated segment. This segment reinforces and extends the dramatized material and explains how the concept enhances students' ability to make better decisions.
- A subsequent unobtrusive icon permits another optional program pause. Viewers may use the concept of opportunity cost to analyze decisions faced by the on-screen characters before proceeding.



- The program does not provide closure for the dramatization. Rather, closure is left for the students to explore in class after the program. The teacher uses discussion questions presented in the guide to analyze these decisions and to probe for students' understanding of the storyline and content points. This design provides a structured opportunity for students to practice critical thinking and decision-making skills as they relate to the concept of opportunity cost.
- A number of curriculum-specific follow-up activities will be provided for teachers. For language arts teachers, the activity might be a writing assignment that would use the concept of opportunity cost in decision-making situations as its premise. For mathematics teachers, the activity might present some problems that involve the calculation of opportunity costs in different decision-making situations. For social studies teachers, the activity may present a societal decision using the concept of opportunity cost that students can approach in groups. The details of these activities will be delineated at the design stage of the project by consultants from the relevant specialities.

In summary, a lesson using the linear video as its basis will provide a compelling drama that models critical thinking and decision-making skills; an animated segment that explains in detail the economic concept; opportunities for students to discuss decision making before, during, and after the program; and structured activities for social studies, language arts, and mathematics teachers.

### **Interactive Videodisc Version**

The project will also include two double-sided Level I barcoded interactive videodiscs. The discs will include all of the images—dramatic and animated—that are contained on the video version, plus graphic enhancements that will make the lesson more interactive for students. Students will interact with the videodisc via remote control keypad or barcode reader, which is available for many videodisc players. The teacher's guide will include printed barcodes for videodisc player commands.

The graphic additions to the videodisc will provide structured opportunities for students to practice critical thinking and decision-making skills and

discuss the economic concepts **during** the program. The random access capability of the videodisc will provide teachers immediate access to any segment on the disc, which could be a useful tool for review of key concepts or factors involved in a particular decision.

A hypothetical interactive videodisc lesson, again on Opportunity Cost, could be structured as follows.

- The teacher loads the disc and selects the desired lesson from an on-screen menu. The disc advances automatically to the beginning of the lesson where a menu of pre-lesson activities is presented. Each activity allows the teacher to explore the concepts of decision making and opportunity costs with her students. The questions in each activity begin to build a systematic decision-making model for students.
- Upon completion of selected introductory activities, students view the same dramatic story that is depicted on the video format. The disc includes a number of automatic pause points that provide information for discussion of the decision-making process or clarification of economic content. The instructor or learner uses a remote control keypad or scans a bar code printed in the teacher's guide to halt or resume the presentation.
- Decision or analysis points are interspersed throughout the program. These can be used at the discretion of the teacher or learner. For example, at the conclusion of the animated segment that defines opportunity cost, the teacher or learner could elect to pause to discuss the concept and, through the random access capability of the disc, repeat the segment if clarification was needed.
- Again, the program has an open ending. On-screen questions are provided which help the learner explore the concept of opportunity cost and decisions based upon it that were presented in the program.
- The disc may include additional information such as selected teacher's guide material, or a database of economic information, charts, or other resources to which quick access is desirable.
- The same curriculum-specific activities for social studies, language arts, and

mathematics that are provided for the video format are used as the follow-up to the videodisc format.

In summary, the videodiscs will contain the same compelling dramas and high-quality animated segments as the video programs. The discs will contain a number of graphic enhancements that will make the lesson more interactive for learners and may also contain information from the teacher's guide and other data for the teacher's convenience.

### **Optional Student Learning Packets**

Packets containing student handouts and worksheets will be available. They are intended to serve teachers who prefer to use them rather than duplicate the student materials that are provided in the teacher's guide.

## **Teacher Materials and Training**

What occurs in the classroom before, after, and in some cases during a video-based presentation is as critical to learning as the video presentation itself. Therefore, the project will provide extensive print and training support for teachers. The details of the teacher support are described in this section.

### **Teacher's Guide**

A comprehensive teacher's guide will be developed to enhance the teacher's implementation efforts. The guide will contain plans for preparing and presenting each lesson. For each of the eight lessons, the guide will include an overview of the program content, suggestions for introducing the lesson, questions for discussion during the optional pause points, follow-up discussion questions, and activities for social studies, language arts, and mathematics teachers.

### **Assessment Component**

Accurate assessment of student performance on the material is an essential part of this project. The importance of such an effort was underscored in a recent report<sup>10</sup> which called for assessment that is "integral to teaching." Significant effort will be required to develop strategies and instruments that are indeed integral to teaching.

This effort will require creative strategies that go well beyond traditional approaches to assessment. Nationally recognized assessment specialists will be deployed on this task. Assessment materials resulting from these activities will be incorporated in the training materials and the teacher's guide.

### **Teacher Training Component**

Research on the effectiveness of *Trade-offs* and *Give & Take* revealed that students of teachers trained to use the series significantly outperformed students of teachers who were not trained. Accordingly, the new series will incorporate a teacher education component. The training will focus on utilization of project deliverables to demonstrate how to enhance critical thinking and decision making through the teaching of economic concepts, and how to infuse project materials into language arts, mathematics, and social studies classes. This component will systematically train a cadre of teacher trainers, who will then conduct informational seminars and in-depth training workshops for teachers. The process is described below.

**Economic Education Institutes (EEI)**—The teacher education component will begin with a series of institutes for those who will train teachers in workshops at the local level. Upon completion of the project's development, a series of four two-day Economic Education Institutes will be conducted regionally throughout the United States and Canada. The institutes will prepare participants for delivery of teacher workshops at the local level. Participants with well-established reputations as teacher trainers will be selected to attend the EEI scheduled for their region. The project will pay the cost of these workshops, including a travel subsidy for the 100 selected trainers.

**Informational seminars**—The cadre of EEI trainers will conduct about 100 seminars throughout the U. S. and Canada during the spring of 1993. These seminars, under the guidance of a model syllabus provided at EEI, will generate teachers' interest in more intensive local training. During the information seminars, leaders will provide teachers with an overview and sample project materials. Seminar leaders will seek commitment from participants to attend local training.

**Local teacher training workshops**—Following the informational seminars, teacher trainers will deliver training workshops. Local training will

be structured through EEI content and support materials provided to teacher trainers and other interested parties. The project will provide \$2,000 matching grants to a maximum of 50 local workshops in participating agencies.

**Training support materials**—Support materials will include an Institute Leader's Handbook to guide the development of teacher trainers during the Economic Education Institutes. In addition, a detailed syllabus for local training sessions, and a model syllabus for informational workshops will be provided. These will include activities to enhance delivery skills and to stimulate the interest and enthusiasm of local teachers.

## Promotion and Information Component

The best materials are effective only for those teachers who know about them. While this

statement may seem obvious, the process of disseminating information about this project must be carefully planned and systematically executed.

Accordingly, high-quality materials that support the dissemination of information about the project will be developed. The details of these materials will be decided in collaboration with consortium agencies. They will likely include a comprehensive promotional kit that will include prepared press releases, ad slicks, and logos.

Also included will be a carefully conceived project brochure. Quantities of the brochure, depending upon student enrollment, will be distributed to consortium agencies. The brochure will also be a useful tool for the regional information workshops that will be the initial point of contact with classroom teachers.

A summary of project materials is shown in the chart below.

**Project Materials**

	Audience		
	Students	Teachers	Teacher Trainers
<b>Materials</b>	<ul style="list-style-type: none"> <li>• Eight 15-minute video programs</li> <li>• Two double-sided, barcoded videodiscs</li> <li>• Optional learning packets</li> </ul>	<ul style="list-style-type: none"> <li>• Comprehensive teacher's guide</li> <li>• Assessment materials</li> </ul>	<ul style="list-style-type: none"> <li>• Institute leader's handbook</li> <li>• Syllabus for information workshops</li> <li>• Syllabus for training sessions</li> <li>• Promotion kit, including project brochures</li> </ul>

# Summative Evaluation

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**T**his project is ambitious. It seeks to extend the curriculum through explicit focus on critical thinking and decision-making skills while also teaching basic economic concepts. It seeks to infuse this effort into multiple disciplines. And it seeks to improve the process of assessment at the middle grades.

Given these ambitious goals, rigorous summative evaluation data will be essential both to gauge the success of the project and to provide crucial data for future efforts in this area.

Therefore, the project will provide seed money for summative studies. Through a request for proposals (RFP) process funds will be awarded for 10

studies of the effects of the project. Awards will be made on a competitive basis.

Research<sup>11</sup> has demonstrated that there are dramatic differences between the initial use of an innovation by teachers and the more accomplished use achieved over time. Therefore, these studies will be staggered over the first three years of project materials availability to provide data both at the initial stages of use and at stages in which teachers have become more comfortable with the materials.

The results of these studies will be summarized in a comprehensive report similar to those issued for *Trade-offs* and *Give & Take*.



# Operational Aspects of the Project

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The instructional materials will be created through a systematic process of cooperative development. Representatives from state and provincial education agencies, as well as representatives from the affiliated centers and councils for economic education, will be involved throughout the project as reviewers, evaluators, and consortium meeting participants. Through this process, those responsible for introducing and supporting the materials will be an integral part of the development process. Through their own involvement, these people and others at their agencies will ensure the efficacy of project materials.

As part of the developmental process, representatives of participating agencies will come together with project staff at a consortium meeting. The project budget includes the cost of sending two representatives per state or province (one representing the state or provincial education agency and one representing the economic education agency) to a meeting of the consortium. Additional representation is encouraged but will be at the expense of the participating agency. The participation fee for an agency can be adjusted to include the costs of more than two representatives at the consortium meeting.

A nationally recognized team will be assembled under the leadership of Chief Consultant Phillip Saunders to develop the content and objectives for the materials. The draft design document will be reviewed by consortium representatives. Once the content and objectives have been established and specific instructional approaches determined, provisional instructional materials will be prepared. These materials will be reviewed by subject matter experts and representatives of participating agencies. They will also be evaluated in classrooms with students and teachers. Revisions will be based on the findings from these review and evaluation activities.

## Project Management

The project will be managed by the Agency for Instructional Technology (AIT), in association with

the Joint Council on Economic Education (JCEE) and the Canadian Foundation for Economic Education (CFEE). AIT is a U. S.-Canadian not-for-profit organization dedicated to strengthening education through the use of video, computers, and other technologies. AIT has developed over 30 major series, with associated curriculum and information activities, in cooperation with consortia of state and provincial agencies. These series are widely used in classrooms throughout the United States and Canada. They include such projects for economic education as *Trade-offs*, *Give & Take*, and *Econ and Me*, as well as such problem-solving and thinking-skills projects as *ThinkAbout* and *Solutions Unlimited*.

AIT will assume primary responsibility for developing the video, videodisc, and teacher's guide for this project. JCEE and CFEE will assume primary responsibility for the teacher training materials and workshops. The assessment materials will be developed jointly by AIT, JCEE, and CFEE.

## Deliverables

Each participating agency will receive one master set of project materials that includes all video, videodisc, print, and assessment materials and the unlimited educational broadcast and duplication rights to use these materials within the jurisdiction it serves. (See the chart on page 10 for a complete list of deliverables.) Additional copies of all materials will be available for purchase by participating agencies at preferred prices. Each participating agency also will receive preliminary instructional materials for review, promotional materials, research reports, and periodic progress reports about project activities.

## Project Schedule

Materials will be available for workshop use in Spring 1993. Full use of project materials will be possible beginning with the 1993-94 school year.

This two-stage dissemination strategy should help to ensure that the initial users are ready and able

to derive maximum benefits from the materials. The schedule for the project is shown below.

### Project Schedule

Consortium Formation	August 1991–March 1992
Instructional Design	January 1992–May 1992
Production and Evaluation	May 1992–February 1993
Consortium Meeting	July 1992
Promotion/Information	January 1993–September 1993
Workshop Delivery	Spring 1993–on-going
General Delivery	September 1993

### Fiscal Information

The total cost of the project is \$1,510,797. Major expenditure categories are as follows.

Development and Funding	\$167,602
Consortium Relations (includes consortium meeting)	93,500
Instructional Design	61,360
Production—Video	737,360
Production—Laserdisc	33,150
Production—Print	6,825
Assessment Component	25,000
Formative Evaluation	33,800
Promotion/Information	28,600
Distribution	41,600
Teacher Training	272,000
Summative Evaluation	10,000

### Participation Fees for Education Agencies

Based on this budget, significant private sector funding, and the participation of 35 state and

provincial agencies, the fee for each agency is listed on page 14. These fees were calculated based on a sliding scale depending upon student enrollment in each agency. The scale is listed below.

Agency Enrollment*	Cost
0–200,000	\$15,000
200,000–400,000	\$18,000
400,000–600,000	\$21,000
600,000–800,000	\$24,000
800,000–1,000,000	\$27,000
1,000,000–1,500,000	\$33,000
1,500,000–2,000,000	\$39,000
2,000,000+	\$45,000

\*AIT used the *Statistical Report* from the National Center for Education Statistics to determine student enrollment within the United States. *Enrollment in Elementary and Secondary Schools in Canada* was used to determine Canadian student enrollment.

### Agency Participation Fees

Alabama	\$24,000	Nebraska	18,000
Alaska	15,000	Nevada	15,000
Alberta	21,000	New Brunswick	15,000
Arizona	21,000	Newfoundland	15,000
Arkansas	21,000	New Hampshire	15,000
British Columbia	21,000	New Jersey	33,000
California	45,000	New Mexico	18,000
Colorado	21,000	New York	45,000
Connecticut	21,000	North Carolina	27,000
Delaware	15,000	North Dakota	15,000
District of Columbia	15,000	Nova Scotia	15,000
DoDDS	15,000	Ohio	39,000
Florida	39,000	Oklahoma	21,000
Georgia	33,000	Ontario	39,000
Hawaii	15,000	Oregon	21,000
Idaho	18,000	Pennsylvania	39,000
Illinois	39,000	Prince Edward Island	15,000
Indiana	27,000	Quebec	15,000
Iowa	21,000	Rhode Island	15,000
Kansas	21,000	Saskatchewan	15,000
Kentucky	24,000	South Carolina	24,000
Louisiana	24,000	South Dakota	15,000
Maine	18,000	Tennessee	27,000
Manitoba	15,000	Texas	45,000
Maryland	24,000	Utah	21,000
Massachusetts	27,000	Vermont	15,000
Michigan	39,000	Virginia	27,000
Minnesota	24,000	Washington	24,000
Mississippi	21,000	West Virginia	18,000
Missouri	24,000	Wisconsin	24,000
Montana	15,000	Wyoming	15,000

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**Agency for Instructional Technology**  
Box A, Bloomington, Indiana 47402-0120  
800/457-4509 or 812/339-2203

The Agency for Instructional Technology is a nonprofit U.S.-Canadian organization established in 1962 to strengthen education. AIT provides leadership and service to the education community through cooperative development, acquisition, and distribution of technology-based instructional materials.

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**Canadian Foundation for Economic Education**  
2 St. Clair Avenue, West, Suite 501, Toronto, Ontario M4V 1L5  
416/968-2236

The Canadian Foundation for Economic Education is a federally chartered nonprofit organization dedicated to strengthening economics instruction in Canada. It aims to promote greater economic awareness by assisting and encouraging the educational systems to improve the quality and expand the quantity of economics now being taught in Canadian elementary and secondary schools. The foundation produces educational materials and provides resources and programs to facilitate the teaching of economics and economics-related subjects throughout the country.

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**Joint Council on Economic Education**  
432 Park Avenue South, New York, New York 10016  
212/685-5499

The Joint Council on Economic Education is an independent, nonprofit, nonpartisan, educational organization incorporated in 1949 to encourage, improve, coordinate, and service the economic education movement. Its principal medium for expanding and improving economic education is a network of Affiliated Councils functioning at the state level and Centers for Economic Education on college and university campuses. The American Economic Association and American Association of Colleges for Teacher Education are formally affiliated with the Joint Council, as are other national professional groups concerned with economic education.



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