The Design, Implementation, and Revision of Instructional Materials in a Competency-Based Business Education Program.

NOTE


ABSTRACT

An approach to implementing competency-based education programs using a combination of self-instructional modules, individualized management processes, and group instructional techniques was designed and used for a comprehensive consumer education program incorporated into various high school business education programs. This instructional development was part of Project PACT (Pupil Achievement and Consumer Teaching) conducted at Wayne State University, Detroit, Michigan, in cooperation with three Michigan school districts. Each of the 45 instructional modules in PACT was constructed to lead to specified consumer education competencies and performance objectives, demonstrated by referenced test items. This paper describes the PACT modules and test items and the first year of the tryout phase of the consumer education program. Appended are an instructional module and an example of a test item.
THE DESIGN, IMPLEMENTATION, AND
REVISION OF INSTRUCTIONAL MATERIALS
IN A COMPETENCY-BASED
BUSINESS EDUCATION PROGRAM.

by

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Introduction and Background

With the ever-increasing number of educational institutions turning to competency-based education (CBE) programs, there is a corresponding growth in the design and use of new instructional materials appropriate for use in these programs. Most often these instructional strategies include the use of modules. The approach to implementing CBE programs described in this paper is a combined use of self-instructional modules, individualized management processes, and group instructional techniques. This eclectic approach has been designed and used for a comprehensive consumer education program which has been incorporated into business education programs in a variety of high school settings.

This instructional development is a part of Project PACT (Pupil Achievement and Consumer Teaching). This project has been funded by the Michigan Department of Education, Vocational-Technical Education Services and is being conducted at Wayne State University in cooperation with three school districts in southeastern Michigan.

Project PACT has two major phases:

1. The design of a competency-based instructional program which includes the identification of competencies, performance objectives, objective-referenced test items, self-instructional modules, and supporting teacher's guide.

2. A research phase which seeks to determine the effects of teaching performance on student learning as well as the effects of the instructional materials on the teaching-learning process.

This paper will concentrate on the principles and procedures followed in the development and implementation of the instructional modules, as well as the results of the use of the competency-based framework for consumer education instruction in selected business education classes.
Basis of Consumer Education Module Design

The forty-five instructional modules in Project PACT are designed around the basic concepts of competency-based education. Each module has been constructed to lead to the achievement of specified consumer education competencies and performance objectives which are demonstrated through the use of matching objective-referenced test items. This basic program framework was developed by the persons on the PACT consumer education cadre. This cadre consisted primarily of classroom teachers from participating schools; in addition, there were teacher educators, and consumer education curriculum specialists.

The term "module" has been applied to many types of instructional materials. Generally, a module is defined as "a set of experiences intended to facilitate the learner's demonstration of objectives which were specified in the design phase of development." Modules typically contain the prospectus (or rationale), the objective, preassessment, enabling activities, and postassessment.1 In the case of the PACT modules the basic format has been modified to be appropriate for use in secondary school settings, although the key elements are still present. (See pages 4 - 7, A Description of the PACT Modules and Test Items)

Modules have developed out of the history of instructional systems design. This form of instructional material has several

major goals, including the presentation of instruction which:

1. is directly related to a performance objective, and
2. is a sequential step-by-step arrangement of content, and
3. allows for mastery learning, self-pacing, and individualization, and
4. is adaptable to a variety of student learning styles, levels, and rates.

In the context being discussed here, modules also achieve another goal. They divide instruction into manageable units, thus facilitating the infusion of new content into an existing instructional program.

Specifically, there were certain guidelines which were used in the design of the PACT modules. These included:

1. The modules must be kept short and motivating. These materials are designed to be used in classes from grades 9 - 12. They have to not only be interesting, but they need to look interesting.

2. The content must be relevant to the needs and interests of teenagers. Since some consumer education content can become theoretical and quite complex, it was necessary to present accurate, but not overly detailed information. The relevancy issue was critical in the identification of performance objectives; but even more so in the design of materials. Specific examples were usually drawn from a teen world.

3. The content must be free from racial and sexual bias. Special care was taken not to picture women in stereotyped roles; racial identification was eliminated as a problem through the approach to theme and illustration.

4. The reading level must be kept as low as possible. Efforts were made to reduce reading level without losing the complexity of detail required. In addition, new vocabulary was always introduced and defined.
5. The format must facilitate easy use. Students must have cues to help them quickly identify the critical parts of a module, as well as to help them notice important directions.

6. Make the module easier to use, than not to use. This is an overall concept which affects all phases of design and revision and test items.

7. Each module must be able to be used independent of the others. Since teachers will select one or more modules to include in their classes, the material must be flexible. Some teachers may want to use only a part of the material while others may want to use the entire set.

A Description of the PACT Modules and Test Items

Using the principles listed above, the traditional module format was modified for use in this situation. This is basically the format of a self-contained instructional module. Self-contained modules include all of the instruction required to meet the state performance objectives. This is contrasted to modules which are not self-contained which simply list the required learning experiences for each objective. In these situations students must then locate the required readings, audio-visual presentation, etc. which contain the assignments. The PACT approach is to use self-contained modules, but provide teachers with suggestions for supplementary assignments which can be incorporated into the classroom activities which support the module.

The PACT modules cover 45 consumer education performance objectives, one per objective. These modules are packaged in four booklets, which average about 150 pages each. All four books follow the story of Lunar and Nova Altair. This is a couple from the planet Altair, in another solar system. The Altairs have
moved to the planet Earth and begin to set up housekeeping. In this process they must learn all of the principles of economic survival in the United States. Each module discusses the Altairs' discovery of a new piece of information, or a new process that helps them become effective, happy citizens. The format of each of these four books of modules is:

1. **A General Preface** which describes to students how they will be using the modules and what the standard parts are in each module.

2. **A Table of Contents** which identifies each of the 10-12 modules in the booklet.

3. **Introducing the Altairs**, the background which explains how the Altairs came to Earth.

4. **The Learning Experiences**, one module per objective presented in the following standard format:

   A. **BEFORE STARTING:**
   
   This section is illustrated with the stop sign. Here students are directed to read "Introducing the Altairs" if they have not already done so.

   B. **WHEN FOLLOWING THE STEPS IN THIS SECTION, YOU WILL:**
   
   Here the target cartoon identifies this section each time. The first part of this section lists the enabling objectives. And the target is the terminal performance objective for the module. These technical terms for objectives are not used, however.

   C. **THE TEXT OF THE MODULE:**
   
   Each module is illustrated. The particular topic is explained in a concise manner, giving sample applications of the points students must learn. If needed, related documents are included, such as tax forms, or bank statements.
D. CHECK YOUR STRENGTH: This section is for student review and self-assessment. These exercises parallel the objective-referenced test item for the module.

E. YOU KNOW THAT YOU UNDERSTAND-A WHEN:

This is a summary of what will be expected of the student on the test for the module which the teacher will give to the class, or individually as preferred.

5. A Glossary, including the definitions of all new vocabulary introduced in that booklet:

The module booklets themselves do not include the objective-referenced test items. This was the decision of the teachers on the PACT cadre. Therefore, each teacher has a set of items, one per module. Each item has been printed twice and color coded, the yellow for use as an exemption test, the green to be used as an exit test.

Again, traditional CBE formats had to be modified for use in the secondary school. Directions had to be clear, obvious, and divided into multiple steps. Each test item was divided into two major sections:

1. The student's section including directions and response sheet(s), and

2. The teacher's section including a scoring guide and evaluator's response space.

Cartoons were used, once again, to direct students' attention to the critical directions. Eyes were put at each spot where students needed to read and a pencil was put at each spot in which students needed to write something. Major directions were written in all capitals and boxed. Often documents are needed for students to
analyze (i.e. advertisements, newspaper articles, checkbook registers, etc.); these are then included with each test item.

Even though cadre teachers wanted students to complete many application activities in the "real world" for final testing purposes all student responses were paper and pencil tests which require application level thinking. The other activities, however, are not eliminated. Many teachers still make these assignments.

For a complete example of one instructional module and a matching-test item see Appendices A and B.

Try-Out of Consumer Education Program

The try-out phase of Project PACT was divided into parts -- Year I (1975-76), in which teachers taught towards selected consumer education objectives using processes and materials of their own choice and Year II (1976-77), in which teachers taught towards selected consumer education objectives using the instructional modules.

Of the teachers involved in the try-out, eight were from business (5) and distributive (3) education. These teachers were from three southeastern Michigan school districts, each representing communities of varying size.

The teachers, all volunteer participants, have a range of experiences in professional education. See Figure 1.
Figure 1

PROFESSIONAL BACKGROUND OF PARTICIPATING BUSINESS AND DISTRIBUTIVE EDUCATION TEACHERS

<table>
<thead>
<tr>
<th>Education Background</th>
<th>5 B.A. - 3 M.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of courses in consumer education</td>
<td>5 courses</td>
</tr>
<tr>
<td>Average number of years of teaching experience</td>
<td>9 years (6 - 12 years)</td>
</tr>
</tbody>
</table>

The try-out phase was limited to the ten consumer education performance objectives which the PACT cadre identified as the most critical for high school students. These objectives covered the following topics:

1. Making a Financial Plan
2. Identifying Family Changes that Affect Income
3. Comparison Shopping
4. Evaluation Savings Accounts
5. Selecting Checking Accounts
6. Completing Checking Transactions
7. Granting and Receiving Credit
8. Buying on Credit
9. Signing Contracts
10. Completing Income Tax Forms

This listing is not in priority order, but rather in a teaching order according to the booklet of modules.

Each teacher selected a class in which the consumer education instruction would be infused. There was considerable variety in the classes selected. In the three school districts, the consumer education program was tried out in three business education classes (General Business, Typing, and Filing) and three Distributive Education classes (Sales, Retailing, and Distributive Co-op). The classes cover students in grades 9 - 12.
Background data was collected on each student in the target classes. Representative of this data is the mean reading achievement scores. This constitutes a standardized achievement score for the class. Figure 2 below shows the reading achievement scores for the Year 1 target classes.

**Figure 2**

**MEAN READING ACHIEVEMENT SCORES**
**OF YEAR 1 TARGET CLASSES IN**
**BUSINESS AND DISTRIBUTIVE EDUCATION**

<table>
<thead>
<tr>
<th>Class</th>
<th>Mean Reading Score by Percentile With Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>39.91/31.35</td>
</tr>
<tr>
<td>B</td>
<td>40.73/22.95</td>
</tr>
<tr>
<td>C</td>
<td>28.13/22.22</td>
</tr>
<tr>
<td>D</td>
<td>48.35/28.10</td>
</tr>
<tr>
<td>E</td>
<td>28.58/15.74</td>
</tr>
</tbody>
</table>

* a specially grouped class

The try-cut during each of the two phases began after the teachers had selected their target class, with identifying one or more of the 10 priority performance objectives which they felt they could successfully incorporate into their regular classroom instruction. The results of this selection process varied between the two years; modules were available only during Year II. Figure 3 shows the frequency of selection of each topic.
**FREQUENCY OF SELECTION OF CONSUMER EDUCATION TOPICS BY BUSINESS AND DISTRIBUTIVE EDUCATION TEACHERS WITH AND WITHOUT MODULES**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Teachers Selecting This Topic 1975-76 (modules not available)</th>
<th>Number of Teachers Selecting This Topic 1976-77 (modules available)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Financial Plan</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>2. Changes Effecting Income</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>3. Comparison Shopping</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Savings Accounts</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>5. Checking Accounts</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Checking Transactions</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>7. Credit</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>8. Buying on Credit</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>9. Contracts</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>10. Income Tax</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

It is apparent that the existence of modules encourages classroom teachers to infuse consumer education content into their instructional program. Perhaps the difference would be even greater with an average group of teachers. Remember, these persons had been involved in the development of this curriculum from the beginning and presumably are more committed to such instruction than a random group of teachers would be.
If one views this selection process in terms of the business or distributive education course into which the objectives will be incorporated, then the matrix shown in Figure 4 below results.

### Figure 4

**FREQUENCY OF SELECTION OF CONSUMER EDUCATION TOPICS BY BUSINESS OR DISTRIBUTIVE EDUCATION COURSE SHOWING VARIATION WITH AND WITHOUT MODULES**

(wo=without modules  w=with modules)

<table>
<thead>
<tr>
<th>Course Name*</th>
<th>General Business</th>
<th>Typing</th>
<th>Filing</th>
<th>Sales</th>
<th>Retailing</th>
<th>Distributive Co-op</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic</strong></td>
<td>wo/w</td>
<td>wo/w</td>
<td>wo/w</td>
<td>wo/w</td>
<td>wo/w</td>
<td>wo/w</td>
</tr>
<tr>
<td>1. Financial Plan</td>
<td>0/0</td>
<td>0/0</td>
<td>0/2</td>
<td>0/0</td>
<td>0/0</td>
<td>0/1</td>
</tr>
<tr>
<td>2. Changes Effecting Income</td>
<td>0/0</td>
<td>0/0</td>
<td>1/2</td>
<td>0/0</td>
<td>0/0</td>
<td>0/1</td>
</tr>
<tr>
<td>3. Comparison Shopping</td>
<td>0/0</td>
<td>0/1</td>
<td>0/1</td>
<td>1/0</td>
<td>1/1</td>
<td>0/0</td>
</tr>
<tr>
<td>4. Savings Accounts</td>
<td>0/0</td>
<td>0/1</td>
<td>0/0</td>
<td>0/0</td>
<td>0/1</td>
<td>0/0</td>
</tr>
<tr>
<td>5. Checking Accounts</td>
<td>0/0</td>
<td>0/1</td>
<td>0/0</td>
<td>0/0</td>
<td>1/1</td>
<td>0/0</td>
</tr>
<tr>
<td>6. Checking Transactions</td>
<td>1/1</td>
<td>2/2</td>
<td>0/0</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>7. Credit</td>
<td>0/0</td>
<td>0/0</td>
<td>1/2</td>
<td>0/1</td>
<td>0/0</td>
<td>0/1</td>
</tr>
<tr>
<td>8. Buying on Credit</td>
<td>0/0</td>
<td>0/2</td>
<td>0/1</td>
<td>0/0</td>
<td>1/1</td>
<td>0/1</td>
</tr>
<tr>
<td>9. Contracts</td>
<td>0/0</td>
<td>0/2</td>
<td>0/0</td>
<td>0/0</td>
<td>0/1</td>
<td>0/0</td>
</tr>
<tr>
<td>10. Income Tax</td>
<td>0/0</td>
<td>1/1</td>
<td>0/0</td>
<td>1/1</td>
<td>0/1</td>
<td>0/0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1/1</td>
<td>5/16</td>
<td>0/3</td>
<td>3/2</td>
<td>4/10</td>
<td>2/3</td>
</tr>
</tbody>
</table>

*N=1 for each class, with and without modules, except for Typing in which N was 2 with and without modules.
In the course of the try-out phases, a variety of data was collected. In addition to the teacher profile data, teachers completed one "weekly work diary" and a "semester overview". These two instruments collected data on actual time spent on the consumer education instruction, as well as a more general picture of the method of teaching this material the teachers employed. In addition, detailed reactions were obtained from the teachers during regularly scheduled cadre meetings. Module revisions were based upon teacher and student reactions.

The work diaries reflect the amount of time participating teachers actually spent on the instruction of the priority consumer education performance objectives. This has been divided between time spent on class preparation and time spent in actual instruction. Again this has been displayed in Figure 5 to show the comparison between time expenditure with modules and without modules.

Figure 5

<table>
<thead>
<tr>
<th></th>
<th>1975-76 Without Modules</th>
<th>1976-77 With Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson Plans</td>
<td>125 Preparation 193 Class</td>
<td>121 Preparation 165 Class</td>
</tr>
<tr>
<td>Materials</td>
<td>78</td>
<td>106</td>
</tr>
</tbody>
</table>

His paper is only dealing with data collected in relation to the try-out of the instructional materials. In addition to this facet of the try-out there was a large scale research project relating teaching performance to student achievement in consumer education instruction. This project consisted of classroom observations and achievement testing of students. Results of this phase will be reported at a later date.
The data reported here is interesting. The teacher time spent in preparation for instruction is roughly the same in terms of actually doing lesson plans. Teachers spent slightly less time, but this certainly is not significant. They did spend more time, however, in terms of preparing additional instructional materials. Based upon conversations with teachers this is not because the modules were inadequate. On the contrary, the modules tended to stimulate the teacher into expanding the learning activities, and doing more varied things in the classroom. Also, one should remember that the teachers had already taught much of this content before, by Year II of the project. They were more familiar with the material and felt more confident in terms of the subject.

The actual time of in-class instruction was also reported. During Year I teachers spent an average of 193 minutes per topic. With the modules, an average of 165 minutes per topic was spent. The explanation for this is that since the modules were self-contained, much of this work was done outside of class. Actual class time was devoted to supporting activities and follow-up. There is the possibility that instructional modules create a more efficient learning situation. However, additional data needs to be collected on this point.

These instructional modules on consumer education, even though they are self-contained were not presented to teachers as necessarily having to be all of the required learning experiences for a given topic. Teachers were encouraged to use other materials, or assignments, in conjunction with the modules, if they saw fit.
Of course, during the first year of try-out, only the competencies, performance objectives, and test items were used, and so the learning activities were entirely of the teacher's design. Figure 6 shows which types of materials teachers actually did use.

Figure 6

<table>
<thead>
<tr>
<th></th>
<th>Textbook</th>
<th>Audio-Visual</th>
<th>Teacher Made Materials</th>
<th>Individualized Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without</td>
<td>With</td>
<td>Without</td>
<td>With</td>
</tr>
<tr>
<td>Number of Uses</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusions

Even though all of the details of the module try-out are not yet reported, certain conclusions can be drawn at this point. These relate to:

a. the effects of modules upon consumer education instruction in business and distributive education programs

b. the reactions to this particular module format when used in secondary classrooms.

One of the primary concerns of many educators is the way to infuse new content into an existing curriculum. The increasing emphasis on consumer education, one of the practical life skills, demands with a new required course or effective integration into
current course designs. It is apparent (see Figure 3) that teachers find new content difficult to incorporate into existing classes without structured materials which they can use. This is the situation even with a discipline that is closely related to the new content. Self-contained instructional modules greatly enhance the likelihood of the integration of new content into a course.

The individual teacher reactions to these materials were excellent. The vast majority of the comments relate to matters of editing. The story-line approach to the modules was well received by high school students. There was no apparent major discrepancy between the reactions of the younger and the older students. Outstanding at this point in time, are the student achievement data and the results of the classroom observations of teachers during module use. This will yield data on the variations in teacher activities when modules are being used, and the effects upon student achievement as measured by both objective-referenced test items, and a standardized consumer education test.

Instructional modules appear to play an important role as a learning strategy and learning device in the secondary school. While standard formats may have to be modified to meet the interests and needs of students, the module can be used successfully by varying types of teachers. More teachers feel secure with modules, at least in the situation of bringing in new subject matter.
YOUR TARGET IS:

Given a major purchase you will compile the following information:

a. Amount of the purchase and length of the credit contract.
b. Three actual sources of credit and interest rate of each.
c. Total cost of the purchase from each institution.
d. Information must be documented. In addition, you will make a decision as to which source of credit to select and give 2 reasons for the decision.

WHEN FOLLOWING THE STEPS IN THIS SECTION YOU WILL:

1. List three sources of credit and give two advantages of each.
2. Define annual percentage rate.
3. Figure total cost of purchase
4. List two reasons for selecting a particular credit source.
BEFORE STARTING:

1. Read "Introducing the Altairs" (pg. #1) if you have not already done so.

2. Become familiar with the following words:
   a. annual percentage rate
   b. collateral
   c. comparative shopping
   d. credit card
   e. credit life insurance
   f. financial institution
   g. passbook credit
   h. personal installment loan
   i. savings

The words are defined in the glossary at the end of this booklet. Each word is underlined in the text. Be sure you understand how each word is used.
The Altairs needed a means of transportation. They had done some comparative shopping and discovered that cars are a costly purchase and that they would need to borrow money.

First they needed information about where one can borrow money and what are the advantages of each source. Mr. Altair asked what a credit union was and his friend Tom Newton explained it this way.
"A credit union is a financial institution that is made up of a group of people that have a common interest, such as a place of work, a church, or a community group. Our credit union is formed because of our work here at Space Allies, Inc. The way it works is that people put their monies into savings and then with the combined savings of all its members; loans can be made to the members. Each credit union determines its own interest rate. The Space Allies Credit Union charges 12% per year or 1% per month. Some of the advantages of the credit union are:

1. Requires payroll deduction to pay off loan
2. Loan officials only grant loans to credit union members.
3. Usually provide credit life insurance without extra cost to the borrower.
4. Cost of credit may be lower than other sources because they:
   a. take fewer credit risks.
   b. lend money deposited by members.
   c. are exempt from federal income taxes.
5. Offer a variety of repayment schedules.
6. Financial counselling may be available."
Mrs. Altair chose to visit the National Bank in Tritown. She asked to talk with Mrs. Simone, the manager of the loan department. Mrs. Simone told Mrs. Altair that they made personal installment loans as well as other types such as credit card, and passbook credit. The bank's lending policies indicated that they preferred to deal in large loans and preferred customers with high credit ratings. Many times the bank would ask for collateral to act as security if, for some reason, the loan could not be repaid. The bank determined its own repayment schedule and did vary credit rates according to the type of loan and the repayment time period. Mrs. Simone stated that it takes several days to process a new credit application. The range of annual percentage rates is from 8% to 18%. Bank rates are regulated by state and national laws. Presently car loans were 9% at Tritown National Bank and credit life insurance would be extra. Mrs. Altair noted that
the bank offered many types of credit plans and she knew that a credit transaction would be handled confidentially. Financial counselling was offered at the bank if desired.

Mrs. Altair outlined the advantages of a bank for Mr. Altair so that they could make a comparison between the financial institutions. Those advantages were:

1. Offer a variety of loans and services.
2. Cost of credit to lenders somewhat lower because the bank takes fewer credit risks.
3. Has a range of annual percentage rates depending upon the type of loan which are regulated by state and national banking laws.
4. Handles credit transactions confidentially.
5. May provide financial counselling.
6. Will vary credit rates depending upon type of credit, length of time for repayment, the borrower's credit rating, and the collateral that is offered.

Mrs. Altair also indicated that the bank preferred customers with established credit ratings and that a loan may require many days to be processed. The bank may also ask for collateral and will determine the repayment schedule. Mrs. Altair thought that these may be inconvenient for the borrower and should be considered when borrowing money.
Tritown also has several consumer finance companies. The Altairs decided to investigate one of these companies. Together they met a Mr. Taylor at Taylor's Finance Company.
They explained to Mr. Taylor that they were shopping for a loan for a car and wanted to know the cost and types of credit that the finance company offered. Mr. Taylor said that the company only gave personal installment loans and if the Altairs desired he could give them the money that very day. When Mr. Altair asked about a credit rating, Mr. Taylor stated that his company takes greater credit risk and will often lend money to borrowers that do not have an established credit rating. He also stated that they do not require any collateral. Mrs. Altair asked about the annual percentage rate. According to Mr. Taylor the range for the annual percentage rate was between 15 and 36% depending upon the size of the loan and the state regulations for finance companies. Mr. Taylor was willing to design a repayment plan that would fit the Altairs' income and assured them that a credit transaction would be handled confidentially. The Altairs thanked Mr. Taylor for his time.
Riding home the Altairs discussed the advantages of a consumer finance company as:

1. Loan application can be processed and money delivered quickly.
2. Would design a repayment plan based on the borrower's income.
3. Would handle credit transaction confidentially.
4. Will loan to a borrower who has not established a credit rating.
5. Will make loans without collateral.

The Altairs recognized that the cost of the loan was much higher than at either the bank or the credit union.

After having their interviews at the credit union, bank, and loan company; the Altairs realized that no one source of credit is the best for everyone.
The Altairs decided that the next step was to compare the three credit sources as to the length of the loan, annual percentage rate, and the amount of monthly payments. Mrs. Altair formed a chart to help them to compare the cost of credit at each credit source.

<table>
<thead>
<tr>
<th>TRITOWN NATIONAL</th>
<th>SPACE ALLIES CREDIT UNION</th>
<th>TAYLOR'S LOAN CO.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount of Loan</strong></td>
<td>$2500.00</td>
<td>$2500</td>
</tr>
<tr>
<td><strong>Annual Percentage Rate</strong></td>
<td>9%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Repayment Schedule</strong></td>
<td>4 years</td>
<td>3 years</td>
</tr>
<tr>
<td><strong>Monthly Payments</strong></td>
<td>$62.80</td>
<td>$83.63</td>
</tr>
<tr>
<td><strong>Total Cost of Car</strong></td>
<td><strong>$1200.00</strong></td>
<td><strong>$1200</strong></td>
</tr>
<tr>
<td><strong>Down Payment</strong></td>
<td>$2500.00</td>
<td>$2500</td>
</tr>
<tr>
<td><strong>Interest on Loan</strong></td>
<td>$514.44</td>
<td>$510.68</td>
</tr>
<tr>
<td><strong>Credit Life Insurance</strong></td>
<td>72.00</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$4286.14</strong></td>
<td><strong>$4210.68</strong></td>
</tr>
</tbody>
</table>
The Altairs felt the loan company's annual percentage rate was too high and that the total cost of the car was much higher than either the bank or the credit union. The total cost of the car between the bank and credit union was very close. The main difference in the total cost was the credit life insurance. The credit life insurance is optional, so Lunar would not have to have that as part of the cost. Their reasons were:

1. Loan would be paid by payroll deduction.
2. Interest on loan was less
3. Would be paid off in 3 years
4. Total cost of car was less

The Altairs returned to the credit union to draw up the contract for the loan.
YOU SHOULD BE ABLE TO:

1. List three sources of credit and give two advantages of each.
2. Define Annual Percentage Rate
3. Figure total cost of purchase
4. List two reasons for selecting a particular credit source.

CHECK YOUR STRENGTH:

1. List 3 sources of credit and give two advantages of each.

A. Credit Sources -- Advantages
   1. 
   2. 

B. Credit Source -- Advantages
   1. 
   2. 

C. Credit Source -- Advantages
   1. 
   2.
2. What does the term "Annual Percentage Rate" mean?

3. Choose from the following:
   Downpayment $400.00
   Loan $2000.00
   Interest on loan $512.16
   Annual Percentage Rate 10.5
   Credit Life Insurance $68.10
   Repayment Schedule 3 years

   the information needed to figure the total cost for a car. What is the total cost?

4. Give two reasons for selecting one credit source over another.
   a. 
   b. 

   After you have checked your strength you may want to review your answers with the information on "Buying on Credit".
YOU KNOW THAT YOU UNDERSTAND BUYING ON CREDIT WHEN:

Given a major purchase by your teacher you will compile the following information:

a. Amount of the purchase and the length of the credit contract
b. Three actual sources of credit and interest rate of each
c. Total cost of the purchase from each institution
d. Advantages of each

In addition, you will make a decision as to which source of credit to select and give 2 reasons for the decision.
Title: Buying on Credit

Student's Name ___________________________ Score ________

FIRST

READ THIS

PROBLEM: Sue wanted to buy a used car that cost $600.00. She had saved $200.00 for a down payment. This left a balance of $400.00 she would have to borrow from a bank, a credit union, or a finance company. She planned to have the loan paid off within 18 months. Sue selected not to purchase credit life insurance.

SECOND

NOW READ SUE'S CONCERN AND THINK ABOUT THE QUESTION

Since Sue was a wise consumer. She knew she should shop around carefully for credit just as she had shopped around for the best car. Her main question was, "what institution would give her a loan for the least amount of money -- a bank, a credit union, or a finance company."

THIRD

READ THE INFORMATION SUE OBTAINED

Information from the NORTH BANK:

North Bank would grant Sue a loan for 18 months at an annual percentage rate of 15.24%. This would make her monthly payments $25.25 for the next year and a half.
Information from the SURE Finance Company:
Sure Finance Company would charge an annual percentage rate of 30.414% on a loan for 18 months making the monthly payment $28.00.

Information from the TEEN Credit Union:
Teen Credit Union would charge an annual percentage rate of 12% on a $400.00 loan for 18 months. The monthly payments at this credit union would be $24.38 per month.

<table>
<thead>
<tr>
<th>Question</th>
<th>NORTH</th>
<th>SURE Bank Finance Comp.</th>
<th>TEEN Credit Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the amount of credit Sue will need to obtain?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. What is the annual percentage rate that is required on the loan for each institution?</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>3. How many months will be needed to repay the loan?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How much are the monthly payments at each institution?</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>5. What would be the total cost of buying the car from each institution?</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Down payment</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Amount of Credit needed</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Interest on loan</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Total cost of car</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>
6. Which institution do you think Sue would select to obtain a loan? (CHECK ONE)

7. What reasons would Sue have for selecting the financial institution in question #6?

Institution checked ____________________________

Reasons for selection (list at least two reasons)

a. ____________________________
b. ____________________________
c. ____________________________
d. ____________________________

NOW LIST AT LEAST TWO ADVANTAGES IN OBTAINING CREDIT FROM EACH OF THE FOLLOWING: A CREDIT UNION, A BANK, AND A FINANCE COMPANY.

EXAMPLE:

Credit Union: Deductions can be taken out of one's pay to repay loan.

Advantages in Obtaining credit from:

Credit Union: 1. ____________________________
2. ____________________________
3. ____________________________
Bank: 1. 
2. ✗
3. 

Finance Company: 1. 
2. 
3. ✗
Title: Buying on Credit
Scoring Guide

Given a major purchase (car, appliance, etc.) of the student's choice, the student will compile the following information:

a. Amount of the purchase and the length of the credit contract
b. Three actual sources of credit and interest rate of each
c. Total cost of the purchase from each institution
d. Advantages of each

Information must be documented.
In addition, the student will make a decision as to which source of credit to select and give 2 reasons for the decision.

I. Did the student complete the information requested? Were all responses correct?

Check each correct answer. A maximum of 22 correct answers are acceptable for this section for a total score of 73.26%. Each response = 3.33%.

<table>
<thead>
<tr>
<th>Question</th>
<th>Responses</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Annual Percentage rate?</td>
<td>15.24% 30.414% 12%</td>
<td>(9.99)</td>
</tr>
<tr>
<td>2. Months to repay loan?</td>
<td>18 mo. 18 mo. 18 mo.</td>
<td>(9.99)</td>
</tr>
<tr>
<td>4. Total cost of car?</td>
<td>Downpayment $200.00 $200.00 $200.00</td>
<td>(9.99)</td>
</tr>
<tr>
<td></td>
<td>Amount of credit $400.00 $400.00 $400.00</td>
<td>(9.99)</td>
</tr>
<tr>
<td></td>
<td>Interest on Loan $54.50 $104.00 $38.84</td>
<td>(9.99)</td>
</tr>
<tr>
<td></td>
<td>Total Cost $654.00 $704.00 $638.84</td>
<td>(9.99)</td>
</tr>
<tr>
<td>5. Check institution selected.</td>
<td></td>
<td>(3.33)</td>
</tr>
</tbody>
</table>

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Scoring Guide - Buying on Credit
Page 2

II. Did the student list two reasons for selecting a specific institution? Check each correct answer. A maximum of 2 responses are acceptable for this section for a total perfect score of 6.66% or 3.33% for each response.

EXAMPLES:

a. lower (higher) percentage rate
b. paid less
c. lower monthly payments
d. total cost of car is less

III. Did the student list at least two advantages for each of the following financial institutions? Check each correct answer. A maximum of 2 responses for each financial institution is acceptable for a total score of 18.98%. Each response receives 3.33%.

EXAMPLES:

Credit Union -- a. Payroll deduction
b. Loans granted to credit members only
c. Cost of credit lower
d. Financial counselling
e. Provide credit life insurance without cost to borrower
f. Other

Bank -- a. Offer a variety of loan services
b. Cost of credit lower because bank take fewer risks
c. Credit transactions is confidential. 

d. Has a range of annual percentage rates 

e. Other 

Finance Company --

a. Obtain money immediately 

b. Payment plan based on borrower's income 

c. Credit transaction is confidential 

d. Obtain loans without collateral 

e. Other 

Total Score = 99.9%
Each Score = 33.3%
Passing Score = 99.9%

TOTAL SCORE