How should I interpret purposeful, contextual, and constructivist when developing lessons?

Are we teaching what our students truly want to learn? Some ABLE students wonder if what they are learning in the classroom will be useful in their lives. As a teacher, I have always felt that what my adult learners work on in the classroom should have an impact on their personal lives. Implementing Equipped for the Future (EFF) theories and practices has assured my students and me that we that they are working on skills that are relevant to their lives. Learning activities reflect the EFF framework and are built around student's personal and academic goals. The lessons are purposeful, contextual, and constructivist in their design. With this approach in place, my adult learners can clearly see that their classroom learning will transfer to their own personal lives.

- Tawna (Tawna Eubanks is a classroom instructor for Hamilton City ABLE)

PURPOSEFUL might be understood as the linking of student goals with lessons. Each learner should be clearly aware of how learned skills will lead them to the achievement of their academic and personal goals. Lessons have a purpose beyond practice of skills.

Purpose: to encourage reflection on and response to reading.
Procedures:
1. Student read (or listen)
2. The teacher prepares several statements that are related to the text and likely to yield differences of opinion. (For example, from the first chapter of Charlotte's Web, Animals should be treated like people. Or Mr. Arable should have killed the runt.) Statements can be written on the chalkboard or on an overhead transparency, or sheets for student response can be developed.
3. Pairs of students talk about the statements, trying to decide if they agree or disagree with each and making notes about their reasons.
4. When pairs have completed their discussion, the teacher may wish to convene the whole group to continue discussion of the text.

Teachers are clear or TRANSPARENT to students about what they need to know and do to reach their goals. By making connections between teaching and their goals, we are being explicit about learning.

Think Aloud Eureka Teaching Strategy (http://literacy.kent.edu/eureka/strategies/think_aloud.pdf)
Purpose: to model for students the thought processes that take place when difficult material is read. Students will understand comprehension strategies better because they can see how the mind can respond to thinking through trouble spots and constructing meaning from text.
Procedure:
1. Use passages that contain unknown words, unclear sections, or contradictions.
2. The teacher reads aloud, stopping to verbalize the thinking that takes place when difficult or confusing material is encountered. The students follow along silently and listen as the teacher thinks through the trouble spots.
3. Students can work with partners to practice think-alouds by taking turns reading short, carefully prepared passages and sharing thoughts.

CONTEXTUAL lessons are useful in adult learners lives. Authentic learning materials will also allow participants to see their recently learned skills applied to the real world. Putting knowledge to use reinforces the importance of developing skills for a purpose.

Suggestion Circles Eureka Teaching Strategy (http://literacy.kent.edu/eureka/strategies/suggestion_circles.pdf)
Purpose: The Suggestion Circle is...
- A problem-solving tool that offers high-quality alternatives
- A powerful way to share information and ideas quickly
- A way to honor someone with a problem
- A time-efficient way to meet the needs of individuals in the group
- A way to include all members in the problem-solving process
Procedure
1. The person who wants the group's input states the problem briefly - in one or two sentences.
2. Someone is asked to record the group's individual suggestions.
3. Participants sit in a circle, and each person is asked to suggest one high quality, briefly stated solution. (Everyone has the right to pass.) No questions are allowed. No one may comment on another person's suggestion. (This includes the person who owns the problem.)
4. When a suggestion is made, the person with the problem says thank you. At the end of the circle, the person with the problem makes his or her own decision to act (or not) on any of the ideas.

**CONSTRUCTIVIST** approach will allow the adult learners to build expertise, acknowledge their own strengths, and use them to move forward towards their goals. Students can make connections about what they already know and can do with new information in order to move forward in their learning. Monitoring of this learning process can create opportunities for students to reflect on what they have learned and give them the opportunity to set new goals or new timelines for their current goals.

**PreP Eureka Teaching Strategy**

**Purpose:** To generate interest in a topic and to estimate students' levels of background information.

**Procedure:** PreP is a pre-reading/pre-instruction activity that fosters group discussion and an awareness of the material to be covered. PreP proceeds in three phases:

1. The teacher introduces an important concept from the material to be taught by inviting the student to share anything that comes to mind when they hear (the word). As students share their thoughts the teacher writes them on the board or on chart paper.
2. The teacher asks the students to share what made them think of their responses. This gives the students the opportunity to see connections between their background knowledge and the new material. The teacher asks the students if they have any new ideas about the material based on this discussion. This gives student a chance to revise previous responses or to add new thoughts on the topic.

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A classroom example

*In a recent orientation, I enrolled a young woman who was interested in obtaining her GED. After working through some goal setting activities, we also discovered she wanted to make better decisions about buying items on credit. She wanted to purchase nice things for herself and her family, but she felt using store credit was leading her to financial trouble.*

*I designed a learning activity (see next page) that would allow her to determine the cost of buying individual items on credit. She choose three items that she had recently purchased on credit and had to determine the total cost she would pay for each when finished paying the monthly payments. She was responsible for locating the rate of interest she was paying and the amount of time allowed on each loan. Once she located the information, we worked through the explanation of the interest formula in several GED books, as well as sample credit agreements from local businesses. When she was comfortable with the formula, she used her own information to determine the total cost she would pay for each of the three items she had chosen to work with. She was surprised to realize she was paying almost double for one of the items.*

*The lesson permitted the student to work on the skills necessary to obtain her GED while helping her learn to manage resources in her family role (purposeful). The use of real life materials allowed her to take the knowledge she had gained and put it to use in her personal life (contextual). Her previous knowledge about credit, and the effects it had in her life, created a strong basis to make connections about interest, total cost, and buying on credit (constructivist). Reflecting on her learning allowed her to reevaluate personal financial decisions while seeing progress towards obtaining her GED.*

*The question, "When am I ever going to use this?" becomes only a memory from the past when I focus on PCC in developing lessons. Students no longer wonder if their learning will be useful, and I have the assurance that what I am teaching will be relevant to my student's lives.*

Tawna Eubanks

When reviewing your lessons, keep these EFF principles in mind:

**Purposeful and Transparent**

- Are each of the activities in the plan related to the goal students have named and the standard they have selected?
- Are students clear about how the standard and the learning activities will help them with their goal?
- Is there a built-in process to allow students to monitor and assess how they are making progress toward their goal?

**Contextual**

- Is the plan related to a real-life situation?
- Does the plan allow students to actively apply what they learn?
- Have I included activities to help students see how they can transfer what they learn to other contexts?

**Constructivist (Building Expertise)**

- Does the plan build on students' prior knowledge?
- Does the plan help students see the "big picture" and how they can use these principles to construct new understanding?

To find out more about how teachers in other states are applying these approaches to learning, visit the Equipped for the Future Special Collection website at [http://www.nifl.gov/links/collections/eff](http://www.nifl.gov/links/collections/eff). Of particular interest is the article by Joan Benz entitled *Active, Purposeful, and Contextual: Assessment in the EFF Classroom* [http://www.sabes.org/resources/heidnotes/vol10/03benz.htm](http://www.sabes.org/resources/heidnotes/vol10/03benz.htm). Many more excellent resources can be found at the EFF Special Collection under the sidebar Literacy Resources-Teacher/ Tutor section.
## Buying on Credit

### OUTCOMES
By computing interest, participants will determine how buying on credit adds to the total cost of an item.

### STUDENT GOALS
Student’s goals of managing money to support needs and priorities will be supported by learning how to use their resources in an efficient manner.

### MATERIALS
How Interest Works & How Much Does Credit Really Cost? Handouts available at Beyond Basic Skills
Calculators
Advertisements and credit card offers

### NRS EFL 3-6
TIME FRAME 1-2 hours

### STANDARD
Use Math to Solve Problems and Communicate

### PRIOR KNOWLEDGE
Have a roundtable discussion about financial choices and evaluating credit costs. What do students already know? What is interest? How is it related to credit? What contractual agreements have they been involved with? Record definitions on board. Teacher checks for understanding of vocabulary. How familiar are they with using calculators? Can they use the interest formula with percentages to solve interest problems?

### COMPONENTS OF PERFORMANCE

| COP A | Understand, interpret, and work with pictures, numbers, and symbolic information. |
| COP B | Apply knowledge of mathematical concepts and procedures to figure out how to answer a question, solve a problem, make a prediction, or carry out a task that has a mathematical dimension. |
| COP C | Define and select data to be used in solving the problem. |

### BENCHMARKS
- 1.3.4; 1.4.3; 1.5.3; 1.6.3
- 1.3.6; 1.4.4; 1.5.4; 1.6.4
- 1.3.11; 1.4.9; 1.5.10; 1.6.8
- 1.3.14; 1.4.12; 1.5.13; 1.6.11
- 1.4.13
- 1.3.15; 1.4.14; 1.5.14; 1.6.12
- 1.3.17; 1.4.16; 1.5.16
- 1.3.18; 1.4.17; 1.5.17; 1.6.15
- 1.3.19; 1.4.18 1.5.18; 1.6.16
- 1.3.20; 1.4.19; 1.5.19; 1.6.17

### ACTIVITIES/CURRICULAR RESOURCES [REAL-LIFE APPLICATIONS]

**Step 1** - The class reads part 1 of the How Interest Works Handout together in what ever manner seems appropriate to the group. Offer highlighters so students can highlight any new vocabulary. Go over any unfamiliar vocabulary and then as a group summarize what was read. Once everyone understands the information go on to Part 2. There is likely to be more discussion here like, “That’s not fair to charge poor people more!” etc. These seeming digressions may help illustrate the need for understanding this material. Ask if anyone knows about rent-to-own stores? How do they work? Is there any interest involved?

**Step 2** - Introduce the interest formula. Everyone should have access to a calculator to begin working with the formula.

\[ I = PRT \] (Principal x Rate x Time)

*Use examples to let the class practice using the formula.*

\[ I = \$200 \text{ television} \times 5\% \text{ rate} \times 1 \text{ year} \]

Demonstrate how to solve this problem using the Casio fx-260 calculator. Have the students key in 200.00. Next, hit the x symbol. Have them key in the rate amount 5, and then hit the shift key and then the % symbol. Last, have them key in the time 1 year and then hit the = symbol. They should see the number 10 in the display window. Explain that this is the amount of interest that they would pay for buying this television on credit. The total amount paid for the television at the end of the 1-year would be $210.

Work through as many examples as needed, until the students feel comfortable with the formula [COP A] and the calculator. [COP B]

**Samples:**
- \[ I = \$500 \text{ stereo} \times 12\% \times 2 \text{ years} \]
- \[ I = \$15,000 \text{ car} \times 4.5\% \times 3 \text{ years} \]
- \[ I = \$90,000 \text{ home} \times 7.0 \% \times 30 \text{ years} \]

Using the Handout How Much Does Credit Really Cost? to discuss information that was read and give students a chance to check any calculations [COP D] on the page for themselves.

### ASSESSMENT/EVIDENCE
To demonstrate mastery, a student could put their interest calculations in a written form; give a verbal presentation of the steps taken to determine the total cost of the item, or produce a sample contractual agreement to purchase an item.
COP D - Determine the degree of precision required by the situation.

COP E - Solve problem using appropriate quantitative procedures and verify that the results are reasonable.

COP F - Communicate results using a variety of mathematical representations, including graphs, chart, tables, and algebraic models.

1.3.21; 1.4.20; 1.5.20; 1.6.18
1.3.22; 1.4.21; 1.5.21; 1.6.19
1.3.23; 1.4.22; 1.5.22; 1.6.20
1.3.24; 1.4.23; 1.5.23; 1.6.21

GED LINK STUDENTS The I=PRT formula is listed on the GED formula reference page. Testers are expected to be familiar with and know how to use it. Have students work with several examples of interest problems in a section from a textbook.

Step 3 - Ask students to bring in copies of any contracts they have that include an interest charge. Have them blank out any personal information before sharing it with class members. The teacher could bring in any credit card or department store terms she/he can locate for the students to use as an example. Also, have students bring in local store advertisements such as H.H. Gregg, Best Buy, etc.

Have each student to choose 3 items to “purchase” from the advertisements. Students will then need to determine what means of credit they are going to use from the sample credits available. Next, students will need to determine what information they will need to be able to work with the Interest Formula [COP C]. For lower level students this information could be provided.

After all the information is gathered have students solve their own personal interest problems using the Interest Formula [COP E] and calculators. Have them report the total cost they would pay for each of the three chosen items [COP F].

REFLECTION/EVALUATION
Higher level students found this learning activity to be fun and challenging. They were very curious about the total cost of many items they had purchased in the past. They completed the actual activity in about 25 minutes with minimal assistance. A good bit of the time was spent in choosing items from the advertisements. Many students were shocked at how much they were truly paying for an item when they bought on credit. Some said they would really have to think before they purchased something again using credit.

Lower level students were frustrated by the formula and where to gather the needed information. They needed a great deal of assistance to complete the activity. They did enjoy choosing items to purchase from the advertisements and using a calculator to do math computations. They shared that they did not like the idea of paying more for an item, but “If you really want something you should do what you have to do to get it.” However, they did understand that interest adds to the cost of an item.

-- Tawnia Eubanks

PURPOSEFUL & TRANSPARENT
Students are often taken advantage of because they lack of knowledge about total cost. Once they can personally calculate the total cost of an item they can use the information to make better decisions involving money.

CONTEXTUAL
By using real-life materials that students have already encountered or could encounter, their learning happens in the context of the real world. Practice with locating information in a contractual agreement will lead them to careful observation of credit agreements in the future.

BUILDING EXPERTISE
Having students recall personal experiences with buying on credit activates prior knowledge. Using their previously learned math skills and knowledge of calculators puts their skills to practice. Having them integrate skills, experiences, and new information allows students to construct new meanings about a familiar or unfamiliar topic.