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Unit Lesson Plans / Critical Thinking / Collaboration / Lesson 2

Collaborative Learning Experiences



Overview:

From designing their own board game to building sound structures out of clay, students test their collaborative skills by working in small groups to complete tasks. Students explore how improvising, along with planning, leads to successful innovations and collaborations.

Grades: 6-12

Subjects: Language Arts, Visual Arts, Ceramics

Pennsylvania State Standards:

Arts and Humanities

9.1. Production, Performance and Exhibition

9.1.D. Communicate a unifying theme or point of view through the production of works in the arts.

Reading, Writing, Speaking and Listening

1.2.8.B. Use and understand a variety of media and evaluate the quality of material produced.

Learning Objectives and Cognitive Skills:

- In small groups, students use strategic and analytical skills to develop a plan of action to achieve a common goal.
- Students collectively hypothesize and test their ideas through collaboration and teamwork.
- Students analyze their test results and revise their initial plan.

Introduction & Warm-Up:

1. Review key factors and benefits of collaboration from Step 1.
2. Write the following terms on the board:
 - Improvisation
 - Planning
 - Motivation
3. Define and discuss these terms with the class.
4. Choose one or both of the following activities to do with your students.

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Activity 1: Clay Olympics

Materials:

25 pounds of clay for each group

Tape measure

Tools (optional)

Procedure:

1. Break class into groups of 4-5 students.
2. Give each group 25 pounds of clay. (Different amounts can be used as long as each group has the same amount.)
3. Relay the following instructions to the students:
 - The goal is to build the tallest free-standing structure in 10 minutes.
 - Only students' hands can be used.
 - The structure must stand on its own at the end of 10 minutes; if the structure falls before it is measured, it will be measured at its highest fallen point.
 - Every person in the group must participate.
4. At the end of 10 minutes, call time and instruct all students to take their hands off the clay and step back from the structure.
5. Measure each structure and write the height of each on the board.
6. Ask each group to briefly explain its process:
 - Did you discuss your plan before starting?
 - What specific job did each person in the group take on?
 - What problems did you encounter? How did you remedy them?
 - What was difficult about working in a group?
7. Give students a second opportunity to build the tallest free-standing structure using their experience and newfound information from other groups. (Additional elements may be added i.e., more clay, tools.) This time give students 15 minutes instead of 10.
8. At the end of 15 minutes, repeat steps 4 and 5.
9. Class Discussion:
 - How did your group change its strategy from round one to round two?
 - Was working in a group harder or easier in the second round? Why?
 - If you were to have a third round, what would you do differently?



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Activity 2: Collaborative Game Design

This activity was adapted from *Group Genius: The Creative Power of Collaboration* by Keith Sawyer

Materials:

Pair of dice

8 game pieces of the same color (checkers, Othello pieces, etc.)

Deck of cards

Lego blocks (6 red, 6 blue, 6 yellow, 6 green, 6 orange)

Pencils/paper



Pieces can be substituted, just make sure each pack has the same contents

Procedure:

1. Warm-Up:

Make two columns on the board and asks students to name their favorite game and least favorite game. Discuss with students their likes and dislikes:

- What elements do you tend to like in a game?
- What makes a game boring? Why?

2. Break the class into groups of 4-5 and give each group a pack of game pieces.

3. Give students 20 minutes to design a new game.

4. At the end of 20 minutes, give students another 15 minutes to play the game and make any modifications to the rules.

5. Next class period, have students exchange games with the other groups.

6. Have each group fill out the Game Review sheet Handout 2.2 as they try to figure out and play one another's games for 20 minutes.

7. Class discussion:

- What knowledge or experiences from other games did you use to design your game?
- How long did you spend on planning? On playing?
- Did you improvise when designing or playing? How?
- What specific job did each person in your group take on?
- What problems did you encounter? How did you remedy them?
- Was it difficult working in a group? Explain.

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Assessment

1. Write the following statement on the board and discuss how it relates to the students' experiences:

"Improvisation interwoven with planning equals successful innovations and collaborations."

2. Have students fill out the Collaboration Survey Collaboration Handout 2.1 soon after their participation in Activity 1 or Activity 2.

3. Discussion:

- What statement(s) did you most agree with? Why?
- What statement(s) did you least agree with? Why?

Adaptations

Research and analyze how a popular game was created or how the Eiffel Tower or the Brooklyn Bridge was built:

- Describe the planning process.
- What were the challenges?
- What were the successes?

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Unit Lesson Plans / Critical Thinking / Collaboration / Lesson 2 / Handout 2.1

Collaboration Survey

	Post Project Evaluation	Disagree	Somewhat Disagree	Not Sure	Somewhat Agree	Agree
1	I prefer to work on my own instead of collaborating with others.	1	2	3	4	5
2	I do my best work alone.	1	2	3	4	5
3	I don't think a project is as valuable when someone else helps.	1	2	3	4	5
4	I sometimes need time away from my collaborator to think about my individual work.	1	2	3	4	5
5	I like to write down my ideas before sharing them with others.	1	2	3	4	5
6	My collaborator is smart but sometimes too bossy.	1	2	3	4	5
7	I prefer to have written instructions instead of coming up with a project.	1	2	3	4	5
8	When I collaborate with others, I don't receive credit for my accomplishments.	1	2	3	4	5
9	The way that I like to work is not the way my collaborators like to work.	1	2	3	4	5
10	Sometimes my collaborator and I exchange ideas outside of class.	1	2	3	4	5
11	When I collaborate I'm sometimes afraid to challenge other people's ideas.	1	2	3	4	5
12	I rarely argue with my collaborators.	1	2	3	4	5
13	By the time we finished the project, we didn't know who had proposed the original idea.	1	2	3	4	5

** adapted from *Creative Collaboration* by Vera John-Steiner (2000)

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Unit Lesson Plans / Critical Thinking / Collaboration / Lesson 2 / Handout 2.2

Game Evaluations

Use the following criteria to rate the game you just played. (5= Excellent, 1= Poor)

	<u>Excellent</u>			<u>Poor</u>	
1. The rules and instructions were clear.	5	4	3	2	1
2. The game was appropriate for the suggested age group.	5	4	3	2	1
3. The game could be played in 20 minutes or less.	5	4	3	2	1
4. The game was creative.	5	4	3	2	1
5. The game was fun to play.	5	4	3	2	1

How could this group have improved this game?

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