Strengthening Student Ownership

Architecture & Construction
Transportation, Distribution, & Logistics
Fall 2015 Professional Development

Do Now: Personal Reflection

Directions: Complete the following questions.

1. Consider a time when all or almost all of your students were highly engaged in a lesson, activity, or project in your class.

2. What about the project or activity motivated the students?

Instructional Strategies to Strengthen Student Ownership

Strategy #1: Set High Expectations	*Examples & Resources:*
• Develop a positive and respectful growth atmosphere.	
– Promote a growth mindset. – Praise the process, not the person. – Encourage learning from mistakes. – Create a learner-focused environment over a task-focused environment.	http://dwwlibrary.wested.org/media/two-mindsets https://www.mindsetkit.org/ https://www.khanacademy.org/youcanlearnanything https://www.khanacademy.org/coach-res/reference-for-coaches/how-to/a/growth-mindset-lesson-plan
• Help students connect course activities to the bigger picture.	
– Relate the learning to the classroom goals, students' individual career goals, and the impact on their community.	– Setting Classroom Goals handout

Strategy #2: Structure Lesson to Maximize Learning	*Examples & Resources:*
• Use technology.	– Blended learning, station rotation, etc.
• Pace lessons to meet individual student needs.	
• Provide opportunity for appropriate student choice.	– Learning Menus
• Include novelty and variety of tasks.	
• Allow time for reflection and self-assessment of progress.	– Index Card Summaries/ Question – K-W-L Chart, Reflection Pyramid, Three Minute Buzz – Portfolios – Project-Based Learning Resources from Buck Institute for Education http://bie.org/objects/cat/student_handouts – *Self-Reflection on Project Work* handout

• Raise student responsibility.	– Classroom responsibilities – Portfolios
• Create opportunities for frequent feedback (teacher-to-student, peer-to-peer).	– Grade as you go – Gallery Walk
• Monitor engagement levels (quality and quantity).	

Strategy #3: Group Students to Maximize Learning	*Examples & Resources:*

• Select the group arrangement to maximize student understanding and learning efficiency.
• Ensure students know their roles, responsibilities, and group work expectations.
• Hold all students accountable for their group work.
• Provide opportunities for students to set goals, reflect on, and evaluate their learning.
	– Project-Based Learning Resources from Buck Institute for Education
	http://bie.org/objects/cat/student_handouts
	   - *Project Team Work Plan*
	   - *Project Team Contract*
	   - *Project Management Log: Team Tasks*

Identifying Opportunities to Strengthen Student Ownership

Directions: Work independently to identify one praise, one problem, and one solution to strengthen student ownership in the scenarios described below.

1. The teacher divides students into groups of five to install vinyl siding on a storage building. The teacher explains the procedure step-by-step, demonstrating when necessary, and the students follow the teacher's instructions to complete the task. In one group, three of the students take turns dividing the work among themselves and do not communicate with the other two students. The two students watch intently but do not participate in the work.

   Praise:

   Problem:

   Solution:

2. The teacher delivers a lesson on the basic types of hand tools used in automotive maintenance and light repair by scrolling through PowerPoint slides, talking about each slide, and asking the students occasional questions. One student answers most of the questions, some students listen, one student takes a nap, and one student texts on a cellphone. At the end of the lesson, the teacher passes out various types of hand tools for the students to examine and directs students to read a chapter of the book on hand tools and answer questions at the end of the chapter. The students begin the work reluctantly.

   Praise:

   Problem:

   Solution:

3. The teacher introduces and assigns an activity in which all students will measure various items in the room and record the measurements on a worksheet using correct notation. Two students finish the assignment in twenty minutes, become bored, and begin to loiter. With ten minutes remaining in the period, about 75 percent of students are finished and begin talking loudly while the remaining students try to finish. The teacher is busy assisting the students who are still working. A few of the working students get distracted by the other students talking and do not finish the activity by the end of the period.

   Praise:

   Problem:

   Solution:

4. In the lab, the teacher demonstrates how to remount a tire on a wheel. Then, the teacher asks for a volunteer to remount the next tire, as the teacher demonstrated. As the student begins, the teacher provides some constructive feedback. The remaining 15 students in the class watch silently. After working for a few minutes, the student makes a mistake. The teacher intervenes and proceeds to remount the tire himself. After a few minutes, the teacher asks for a new volunteer stating that the first volunteer had his turn. All but one student decline to participate. The new volunteer practices for the remainder of the activity while the remaining 15 students watch.

   Praise:

   Problem:

   Solution:

5. The teacher demonstrates how to safely perform a cooling system pressure test. Each student practices performing the test once while a second student and the teacher monitors. The rest of students "wait in line" for the duration of the period until it is their turn. Students who have completed their turn and students waiting in line discuss the upcoming football game against a rival team. The teacher pauses occasionally to ask the waiting students to lower their volume.

    Praise:

    Problem:

    Solution:

Applying Instructional Strategies to Courses

Directions: Work together in your groups to brainstorm a list of aligned activities and related strategies to strengthen student ownership.

Course Standard(s)	Aligned Activity	Strategies to Strengthen Student Ownership
Fundamentals of Construction 16) Distinguish between the various types of fasteners commonly used in construction, such as nails, screws, and bolts, by creating a visual display outlining the properties and uses of each type. Demonstrate the ability to accurately select and install the appropriate fastener in a variety of situations. (TN Reading 2, 3, 4, 7; TN Writing 2; NCCER 27102-13)	Students work in groups to sort through a container of various fasteners and use the textbook or web resources to determine the name, properties, and uses of each. Students organize the fasteners into type and create a visual display with a concise, written description including fastener name, properties, and uses.	Group Students to Maximize Learning • Assign students to work in groups of three. • Set expectations that each group member is responsible and will be held accountable for individually researching at least one nail, one screw, and one bolt. • Cue students to set goals at the onset of the project and at period times throughout the project prompt students to pause and reflect on their progress. Structure Lesson to Maximize Learning • Allow students to use technology to facilitate research. • Encourage student to use peer-to-peer feedback as they progress. • Allow students to choose what type of visual display the will create. (Index cards, poster, brochure, digital format, etc.).

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