



★ It's in the Bag ★

Book Study Groups have long been one of the least expensive and most enjoyable ways for educators to grow professionally. Study groups provide structured time for reflection on student work and classroom practice. A book study group can be formed in your school, your district, or even online. The study group method is invaluable in bringing together groups of colleagues who can use the classroom as an arena for studies, discussions and experience exchange and turn it into a “laboratory” for trying out new teaching methods skills and practices gleaned from the books studied. The hallmarks of a successful book study group are teacher engagement, superior use of time, and sustainable changes in student achievement.

Facilitator's Guide

Resources available for Checkout: *The Art and Science of Teaching: A Comprehensive Framework for Effective Instruction.* (2007). Robert J. Marzano, Alexandria, VA: Association of Supervision and Curriculum Development

Resources available on the Web:

Book Description: *The Art and Science of Teaching: A Comprehensive Framework for Effective Instruction* represents an instructional design that is based on research while respecting the need to know individual students' strengths and weaknesses when using strategies in the classroom. This design is based on a sequence of questions that look at goal setting, acquiring knowledge, engaging students in the learning process, and establishing rules and procedures to maximize outcomes. This book is filled with charts, rubrics, and organizers to ensure that teachers are examining every component of the teaching process and setting up a logical plan using effective instructional, management, and curriculum design strategies.

Framing the Context of a Book Study: Powerful Tools for Learning:

Two powerful venues for deepening understanding, impacting student outcomes and contributing to the growth of learning organizations are professional learning communities and communities of practice. One of the most effective ways to

make your school a learning organization is to create a professional learning community or a community of practice. The concept of a professional learning community (PLC) is a powerful influence around the work of restructuring schools. According to Rick Dufour in *Whatever It Takes: How Professional Learning Communities Respond When Kids Don't Learn*, the fundamental role of schools is "learning, not teaching." While Dufour acknowledges that this is "an enormous distinction," he notes that the emphasis on learning leads those within the school to place their focus and energy on three important questions:

1. What is it we want all students to learn?
2. How will we know when each student has acquired the intended knowledge and skills?
3. How will we respond when students experience difficulty?

Another option for helping schools and districts is to create a community of practice. Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. A community of practice (CoP) makes connections from person to person for mutual inquiry and learning about a practice or issue. Everyone's voice is needed. Participants develop a shared identity and share a repertoire of knowledge and experiences (Wenger, 2003). Both professional learning communities and communities of practice move system stakeholders from knowing to doing.

A Book study becomes a powerful tool that these communities can use to engage in powerful, professional discourse. A building or existing PLC or CoP may want to add a book study as another tool to aid in professional development. When your school or team begins planning their book study, keep the above questions in mind as a way to frame all discussions around student learning and school improvement.

Facilitating Successfully:

In order to facilitate the study groups most effectively, a district, school or team may want to consider the following:

- Treat study groups as a school-wide teacher professional development model.
- State the purpose for the book study groups in terms of specific student needs. (These needs should be based on an analysis of student data)
- Study groups can be job-embedded, with principals freeing up time during the school day, or during superintendent conference days, faculty meetings, etc.
- Groups should be small and manageable, their work "published".
- Study groups need support from administrators.

- Work within study groups is built around the participants' search for knowledge according to their own needs and the needs of their students.
- Members meet regularly and work according to a study plan that they often develop themselves (the plan will include how often to meet, for how long, how many chapters will be discussed per meeting, where to meet, etc.).
- Everyone in a study group is responsible for getting the work done and for achieving the jointly agreed upon goals.
- The goals of a study group can be:
 - To offer a good method for teachers to cooperate more actively in order "to awaken their students' minds" about sustainable development.
 - To integrate sustainable development into all curriculum subjects.
 - To provide teachers with the opportunity to share both good and bad teaching experiences and to get support from colleagues and professional books.
 - To encourage teachers to work together to solve a problem.
 - To get teachers motivated to pursue education for sustainable development—to make a difference.
- The facilitator should engage in the following behaviors:
 - Be diplomatic – suggest, but don't subscribe.
 - Act as an advisor.
 - Be respectful.
 - Be professional, relaxed and be present in the situation.
 - Don't intervene too much – let the group work on what they feel is important.
 - Encourage, inspire and support.
- During the last meeting, ask these questions:
 - What positive outcomes did we achieve?
 - What problems did we encounter?
 - What lessons have we learned that could be useful to other groups?
 - What do we do next?

The following section contains reflection and dialogue suggestions and questions broken out by chapter. These are designed to facilitate thinking and discussion around ***The Art and Science of Teaching***.

Chapter 1: What will I do to establish and communicate learning goals, track student progress, and celebrate success?

Overview

This chapter provides a way to differentiate between learning goals and learning activities. How to track student progress using formative assessment and recognize students' knowledge gains is discussed. The importance of celebrating success is stressed here.

Helpful Hints

Give participants a list of statements and have them label each one a goal or an activity. Have them discuss why they came up with each label. How does one differentiate between the two?

Reflection and Dialogue

1. How can rubrics be helpful in goal setting? Discuss with others whether you prefer the Simplified Scale or the Complete Scale for giving feedback to a student?
2. What does research tell us about students who chart their own progress? Give an example from your own experiences how charting one's progress would be motivating in order to reach a goal.
3. Identify a personal goal and write it in the suggested format:
I will better understand _____. I will be able to _____. What are activities that you will do to achieve your goal? How can formative assessment help reinforce your effort? Share your responses with the group.

Chapter 2: What will I do to help students effectively interact with new knowledge?

Overview

This chapter provides suggestions for teachers to increase students' understanding of content by facilitating the active processing of content. These "critical-input experiences" are necessary in helping students to accomplish their goals. By previewing information, chunking the information in small units, and then having students discuss and reflect on their own learning, students will have a better chance of retaining the content.

Helpful Hints

Bring in a video and have participants try to understand what is being presented. Tell them that they will watch it in small chunks and have a chance to talk about it with each break. They will take notes later on. After the video and summarization activity, ask them to reflect on their own learning. What makes this an effective strategy to interact with new knowledge?

Reflection and Dialogue

1. What is active processing? Name some activities that increase engagement in learning experiences. According to the research, which ones are most helpful if we want students to organize and store content in memory?
2. Give an example of how to introduce students to new material. Why is it important to do a preview activity? Share your preview activities with the group, discussing the effectiveness of each.
3. What do note taking and summarizing have in common? What are some nonlinguistic ways to synthesize information? Discuss both forms of information processing.
4. Discuss the meaning of "elaborative interrogation" as a questioning technique. Practice this technique with another group member.
5. What does research tell us about cooperative learning as a way to facilitate knowledge development? What is the recommended number of students in a learning group? How does this compare to what you do with your own students?

Chapter 3: What will I do to help students practice and deepen their understanding of new knowledge?

Overview

This chapter stresses the importance of practice and review opportunities when learning new skills and ideas. Without this type of extended processing, knowledge that students initially understand might fade and be lost over time.

Helpful Hint

Have participants read directions for learning how to build a model airplane. Ask them if they would be able to explain it to someone else. What makes this difficult?

Reflection and Dialogue

1. What is the difference between assimilation and accommodation when trying to understand something new? Why is accommodation more challenging for the learner?
2. What does the author mean when he states that procedural knowledge needs to be practiced and declarative knowledge needs to be reviewed and revised? Why does he make this distinction? Do you make this distinction in your own classrooms? Discuss with your group.
3. What are your views on homework? Are your views aligned with what the research is showing? If not, how can you improve upon your current homework system? Did this chapter change your views? How?
4. What is structured guided practice? Discuss how error analysis and corrective feedback fit into guided practice opportunities. Do you already employ structured guided practice in your classrooms? If not, will you be open to integrating it into your classroom routine? How does the group feel about it?

Chapter 4: What will I do to help students generate and test hypotheses about new knowledge?

Overview

This chapter focuses on providing opportunities for students to examine their thinking regarding knowledge being learned. This process stimulates major changes in their understanding.

Helpful Hints

Look at the classroom scenario on page 86. The students had to make predictions and then gather information about a topic. They then reexamined their predictions after collecting information. Think about how problem-based learning generate new knowledge.

Reflection and Dialogue

1. Can you think of a time when you used either inquiry, problem solving, decision-making, and/or investigation to develop your understanding of a concept? How is this different from practice and review of skills and ideas? Do you think that one strategy works better than the others, or does it depend on the concept?
2. To confirm or disconfirm predictions involve providing support for a conclusion. What do students need to know about employing effective support to test hypotheses?
3. Why is it important to let students design their own tasks? Share examples of this with others in your group.
4. Describe how a cooperative learning group would gather information to generate and test hypotheses. Have you used cooperative learning groups in your classroom? Were they successful? Why of why not?

Chapter 5: What will I do to engage students?

Overview

Chapter 5 provides many activities teachers can use to capture students' attention in a way that enhances their knowledge of academic content. By promoting physical movement, challenging students' thinking, and stimulating their attention to the task at hand, student engagement can be achieved.

Helpful Hints

Start the session off with a game of Hangman. The mystery word will be "engagement" to kick-off the topic. Ask participants if a game like Hangman captured their interest. Why?

Reflection and Dialogue

1. Describe some characteristics of on-task behavior occurring in classrooms, particularly in your own classroom.
2. What do you do to keep students engaged in the lesson? Why is physical activity linked to enhanced energy? What do your colleagues do? Discuss with the group.
3. The research tells us that missing and unusual information stimulate engagement, so what activities would be interesting to students? Have you had the opportunity to use the strategy in your classroom? What did you notice about student engagement?
4. Discuss how "mild pressure" and "mild controversy" stimulate engagement. Why does the author use the word "mild" when talking about pressure and competition?
5. How would you monitor engagement? What are some ways to get all the students responding most of the time? Which of these methods have you and your colleagues employed? Discuss.
6. Explain the importance of demonstrating enthusiasm for the content being taught. What are verbal and nonverbal behaviors that teachers should use? What specific behaviors do you use? Share with your group.

Chapter 6: What will I do to establish or maintain classroom rules and procedures?

Overview

Chapter 6 deals with the first critical aspect of classroom management, rules and procedures. Without effective rules and procedures, learning is inhibited. Ideas for organizing the classroom environment, identifying rules and procedures, reviewing and changing rules and procedures, and using classroom meetings are presented in this chapter.

Helpful Hints

Before this meeting, have teachers write down their classroom rules and be ready to talk about them.

Reflection and Dialogue

1. How can you recognize a classroom with inefficient procedures and no guidelines?
2. Discuss the research on the link between rules established at home and behavior at school. What are some ways we can work with parents to increase students' achievement? Have you involved students' parents in the past? How did this involvement translate into a better classroom environment and enhanced student learning?
3. Do you think your classroom environment is effective for teaching and learning? What are some adjustments you might consider after seeing the possible layouts in this chapter? Share with your group.
4. How are classroom meetings used as a classroom management strategy? Are classroom meetings employed by members of your group? If not, will colleagues be willing to experiment with classroom meeting and discuss their successes or failures with the group?

Chapter 7: What will I do to recognize and acknowledge adherence and lack of adherence to classroom rules and procedures?

Overview

Rules and procedures for which there are no consequences do little to enhance learning. This chapter makes teachers aware of ways to acknowledge both positive and negative behavior. It also offers an overall plan for discipline.

Helpful Hints

Have participants turn to page 132 and look at the chart at the bottom of the page. Why do you think a combination of reinforcement and punishment decreased the number of disruptions more than just one or the other? How do you feel about this balanced approach?

Reflection and Dialogue

1. Is it always possible to apply both positive and negative consequences to a rule or procedure? Explain. How does this relate to what you do in your own classroom?
2. Describe ways to involve the home in recognition of positive student behavior. How does this differ from what most teachers do? Are any of the ways you describe ones that you have successfully tried in your own classroom? Share with your group.
3. Teacher awareness of potential problems and quick attention to those situations are at the core of effective classroom management. What are appropriate ways to acknowledge lack of adherence to rules and procedures? Share your ideas with your group, and together, compile a list of appropriate ways with explanations and examples for each strategy.
4. What are some suggestions for designing an overall plan for disciplinary problems? How can you use this list to improve your relationship with disruptive students? If possible, invite your building administrator to be a part of this discussion.

Chapter 8: What will I do to establish and maintain effective relationships with students?

Overview

This chapter suggests that teachers should think in terms of teacher behaviors as opposed to teacher thoughts or feelings. These behaviors should communicate that the teacher will provide guidance and direction for the student and that they will work as a team to have a successful relationship.

Helpful Hints

Give participants a questionnaire to find out about their hobbies and interests. Why would a teacher want to know something about each student? Think about how this personal information can be used in class discussions.

Reflections and Dialogue

1. What is your reaction to the research that states that there is very little relationship between affectionate teachers and student learning gains? Which interactions and behaviors caused substantial learning gains? How does this research compare with your classroom experiences? Share with your group.
2. The author recommends that teachers should project a sense of emotional objectivity. What does this mean? Identify aspects of emotional objectivity. Discuss situations within your own classroom where projecting a sense of emotional objectivity either helped or hindered the resolution of a problem or situation.
3. Do you have a mental checklist to see if you are being consistent and objective when applying positive and negative consequences? Share your thoughts.

Chapter 9: What will I do to communicate high expectations for all students?

Overview

Chapter 9 discusses the importance of believing that students can succeed. Teachers should develop expectations for students' success in class and then behave in ways that are consistent with these expectations.

Helpful Hints

Give out an informal observation form and have teachers reflect on the quality of interactions between teacher and student. Have them write down anything that they notice or can identify as a positive or negative pattern toward certain students. Have group members share these forms at your first meeting.

Reflections and Dialogue

1. How do you identify differential treatment of low-expectancy students? What steps can be taken to show students that they are valued and respected? How do you handle this situation in your own classrooms? Is it an easy or difficult way for you to behave with students? Examine how your colleagues feel about this.
2. Look at the observation form that you filled out and write down an action plan to change interactions with low-expectancy students. Share with the group.

Chapter 10: What will I do to develop effective lessons organized into a cohesive unit?

Overview

Chapter 10 addresses the various ways that a teacher might construct a unit and the lessons within that unit. Teachers have great flexibility in terms of how units are structured and organized.

Helpful Hints

Give out the checklist at the end of this chapter before meeting with the group. This is really a summary of everything that was discussed in chapters 1 through 9. Review the checklist and ask participants to write down their reflections. At your first meeting discuss everyone's individual responses to the checklist.

Reflections and Dialogue

1. The manner in which teachers design and organize academic tasks affects learning. What should teachers do to maximize instructional effectiveness? What do you actually do in your own classroom? Is there room for improvement? Share your ideas with your group.
2. What are the three basic areas of focus for a unit? How are do the goals change when the focus changes? How does this compare with what you do in planning for your classroom?
3. How do you plan for content-specific lesson segments? How do you know when to use a critical-input experience, an activity that will be used for practice, or a task that generates or tests knowledge? Discuss with your group.
4. How is the list at the end of this chapter helpful to a teacher or administrator? How will it be useful to you personally?
5. What information do you think will have the largest impact on your teaching? Why? Discuss with your group.

