

# Improving Student Achievement

## Sample Lesson

### **Study Teams and Group Activities**

If you register as an individual, ask a colleague or spouse to participate with you in discussion assignments. If that is not possible, use group activities for your own personal reflection.

### **Application Assignments and Access to a Classroom**

If you are an administrator, counselor, or do not currently have access to a classroom, instead of reporting on implementation of application assignments describe how you plan to use the course concepts in your environment.

# Session #1

## The Challenge of Improving Student Achievement

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### LEARNING OBJECTIVES:

By watching Video Program #1 and completing this session's learning activities, you will:

- Analyze the various factors that affect student achievement.
- Analyze the effectiveness of your own teaching style.
- Explore how student-teacher relationships affect teaching and learning.
- Analyze the extent to which your current teaching is student-centered.
- Apply what you have learned in your own teaching situation.
- Evaluate the effectiveness of your classroom application experience.

### READING ASSIGNMENT:

*Please read the following excerpt from **The Learner-Centered Classroom and School** by Drs. Barbara McCombs and Jo Sue Whisler.*

#### **What is “Learner Centered”?**

Many educators and psychologists have been urging us to reexamine our concepts of education, schooling, and whom the system serves (for example, Lincoln, 1995; Marshall, 1992; Sarason, 1995). Consensus is emerging that schools are *living systems* —systems fundamentally in service to students—and that they serve the basic function of learning for the primary recipient (the student) and also for the other people who support the learning process (including teachers, administrators, parents, and other community members). Proponents of this *learner-centered* perspective further add that to support the function of learning for all learners, education and schooling must concern themselves with how to provide the most supportive learning context for diverse students—a context that is shaped primarily by the teacher and where that teacher “comes from” in terms of valuing and understanding the rich array of individual differences and needs that students present. From this perspective, curriculum and content are important but not exclusive factors in students' desired motivation, learning, and achievement. What is as important as curriculum and content, and fundamental to the learning of curriculum and content, is attention to meeting individual learner needs.

The importance of meeting the basic needs of all learners in a learner-centered educational system is becoming particularly acute as this nation's schools face increasingly diverse student populations. What do we mean by *learner centered*? How do we distinguish this concept from *child* or *student centered*? How, too, do we differentiate it from older more traditional concepts of education and schooling? The purpose of this chapter is to define learner centered from a research and theory base that integrates what is known today about learners and learning.

When learner centered is defined from a research-based perspective including both learning and learners, we believe that definition establishes a foundation for clarifying what is needed to create positive learning contexts at the classroom and school levels, contexts in which the likelihood of more students' experiencing success is increased. This goal is critical if this country is to achieve

increased motivation, learning, and academic achievement for a much larger number of students, including many who are currently under-achieving or dropping out. This research-based foundation that focuses on both learners and learning can also lead to increased clarity about the dispositions and characteristics of those who are in service to learners and learning— including teachers, administrators, parents, other community members, and the students themselves. Finally, a clear definition of learner centered will lead to clear definitions of the practices, programs, and policies that characterize learner-centered classrooms and schools.

### **The Learner-Centered Psychological Principles**

In 1990, the American Psychological Association (APA) appointed a special Presidential Task Force on Psychology in Education whose purpose was twofold: (1) to determine ways in which the psychological knowledge base related to learning, motivation, and individual differences could contribute directly to improvements in the quality of student achievement and (2) to provide guidance for the design of educational systems that would best support individual student learning and achievement. One task force project, directed by Barbara McCombs, was to integrate, from psychology, education, and related disciplines, research and theory concerned with education and the process of schooling. The purpose was to surface general principles that could form a framework for school redesign and reform. The resulting document, *Learner-Centered Psychological Principles: Guidelines for School Redesign and Reform*, specified twelve fundamental principles about learners and learning. Taken as a whole, they provide an integrated perspective on factors influencing learning for *all learners*. (McCombs, 1994; Alexander and Murphy, 1998; McCombs and Lambert, 1998) Together, they are intended to be understood as an organized knowledge base that supports a learner-centered model.

No one principle can be considered in isolation if maximum learning is to occur for each student. The principles are categorized into domains of basic factors that cannot be ignored in understanding individual learners and the learning process, as they provide the foundation for sound teaching practices. The domains describe areas identified in the research as having an impact on learning. The factors making up the domains are related to the intellectual aspects of learning (metacognitive and cognitive factors); motivational influences on learning (affective factors); individual differences in intellectual, social, emotional, and physical development areas (developmental factors); influences of the individual's own self-assessments and the assessments of others on learning (personal and social factors); and differences in family backgrounds, cultures, and other experiences that influence learning (individual differences factors). Exhibit 1.1 presents the individual principles and explanations of each. Exhibit 1.2 summarizes definitions of the domains into which the principles are divided.

#### **Exhibit 1.1 Learner-Center Psychological Principles**

##### **METACOGNITIVE AND COGNITIVE FACTORS**

**Principle 1: The nature of the learning process.** Learning is a natural process of pursuing personally meaningful goals, and it is active, volitional, and internally mediated; it is a process of discovering and constructing meaning from information and experience, filtered through the learner's unique perceptions, thoughts, and feelings.

**Principle 2: Goals of the learning process.** The learner seeks to create meaningful, coherent representations of knowledge regardless of the quantity and quality of data available.

**Principle 3: The construction of knowledge.** The learner links new information with existing and future-oriented knowledge in uniquely meaningful ways.

**Principle 4: Higher-order thinking.** Higher-order strategies for “thinking about thinking”— for overseeing and monitoring mental operations— facilitate creative and critical thinking and the development of expertise.

## **AFFECTIVE FACTORS**

**Principle 5: Motivational influences on learning.** The depth and breadth of information processed, and what and how much is learned and remembered, are influenced by (a) self-awareness and beliefs about personal control, competence, and ability; (b) clarity and saliency of personal values, interests, and goals; (c) personal expectations for success or failure; (d) affect, emotion, and general states of mind; and (e) the resulting motivation to learn.

**Principle 6: Intrinsic motivation to learn.** Individuals are naturally curious and enjoy learning, but intense negative cognitions and emotions (e.g., feeling insecure, worrying about failure, being self-conscious or shy, and fearing corporal punishment, ridicule, or stigmatizing labels) thwart this enthusiasm.

**Principle 7: Characteristics of motivation-enhancing learning tasks.** Curiosity, creativity, and higher-order thinking are stimulated by relevant, authentic learning tasks of optimal difficulty and novelty for each student.

## **DEVELOPMENTAL FACTORS**

**Principle 8: Developmental constraints and opportunities.** Individuals progress through stages of physical, intellectual, emotional, and social development that are a function of unique genetic and environmental factors.

## **PERSONAL AND SOCIAL FACTORS**

**Principle 9: Social and cultural diversity.** Learning is facilitated by social interactions and communication with others in flexible, diverse (in age, culture, family background, etc.), and adaptive instructional settings.

**Principle 10: Social acceptance, self-esteem, and learning.** Learning and self-esteem are heightened when individuals are in respectful and caring relationships with others, who see their potential, genuinely appreciate their unique talents, and accept them as individuals.

## **INDIVIDUAL DIFFERENCES**

**Principle 11: individual differences in learning.** Although basic principles of learning, motivation, and effective instruction apply to all learners (regardless of ethnicity, race, gender, physical ability, religion, or socioeconomic status), learners have different capabilities and preferences for learning mode and strategies. These differences are a function of environment (what is learned and communicated in different cultures or other social groups) and heredity (what occurs naturally as a function of genes).

**Principle 12: Cognitive filters.** Personal beliefs, thoughts, and understandings resulting from prior learning and interpretations become the individual’s basis for constructing reality and interpreting life experiences.

## **Exhibit 1.2 Domains of Learner-Centered Principles.**

### **METACOGNITIVE AND COGNITIVE**

These four principles (1 through 4) describe how a learner thinks and remembers. They describe factors involved in the construction of meaning from information and experiences.

They also explain how the mind works to create sensible and organized views of the world and to fit new information into the structure of what is already known. They conclude that thinking and directing one's own learning is a natural and active process and, even when subconscious, occurs all the time and with all people. What is learned, remembered, and thought about, however, is unique to each individual.

### **AFFECTIVE**

These three principles (5 through 7) describe how beliefs, emotions, and motivation influence the way in which people perceive learning situations, how much people learn, and the effort they are willing to invest in learning. Individuals' emotional state of mind, beliefs about personal competence, expectations about success, and personal interests and goals all influence how motivated they are to learn. Although motivation to learn is natural under conditions and about things people perceive to be personally relevant and meaningful, motivation may need to be stimulated in situations that require individuals to learn what seems uninteresting or irrelevant to them.

### **DEVELOPMENTAL**

This principle (8) recognizes capacities for learning that are known to develop or emerge over time. It is based on research documenting the changes in human capacities and capabilities over the lifespan. It informs us about the identifiable progressions of physical, intellectual, emotional, and social areas of development that are influenced by unique genetic or environmental factors. These progressions vary both across and within individuals and thus cannot be over-generalized for any one individual or group of individuals because of the risk of limiting opportunities for learning. The important generalization in this domain is that individuals learn best when material is appropriate to their developmental level and presented in an enjoyable, interesting, and challenging way.

### **PERSONAL AND SOCIAL**

These two principles (9 and 10) describe the role that others play in the learning process and the way people learn in groups. These principles reflect the research that shows that people learn from each other and can help each other learn through the sharing of their individual perspectives. If learners participate in respectful and caring relationships with others who see their potentials genuinely appreciate their unique talents, and accept them as individuals both learning and feelings of self-esteem are enhanced. Positive student-teacher relationships define the corner-stone of an effective learning environment— one that promotes both learning and positive self-development.

### **INDIVIDUAL DIFFERENCES**

These two principles (11 and 12) describe how individuals' unique backgrounds and capabilities influence learning. These principles help explain why individuals learn different things, at different times, and in different ways. Although the same basic principles of learning, thinking, feeling, relating to others, and development apply to all individuals what they learn and how this learning is communicated differs in different environments (for example, cultural or social groups) and as a function of heredity. From their environment and heredity, people create unique thoughts, beliefs, and understanding of themselves and their world. Appreciating these differences and understanding how they may show up in learning situations is essential to creating effective learning environments for all students.

Looking at the twelve principles, we can see that they apply to all learners— young and old. As complex human beings, we each approach learning situations with fundamental human qualities in common. At the same time, however, we bring to these situations unique ways of learning

based on our heredity and prior learning experiences as well as our special characteristics such as interests, talents, and intellectual or physical capabilities. Our common characteristics allow a definition of a general model of schooling; our unique characteristics determine the adaptations that schools and classrooms must make so that they are set up to meet the learning and motivational needs of all learners. The principles remind us that when it comes to meeting learning needs, we are all learners — teachers, administrators, parents, and community members— with learning and motivational needs similar to the students we serve.

The twelve principles form a systemic framework that can guide decisions about content, environment, and opportunities for learning, for the student in the classroom and beyond, and that can help define a dynamic learning context that is continuously improving. Of perhaps even greater importance, the principles both confirm and validate the knowledge and experience of the best teachers by providing research justification for their practices.

### **Defining Learner Centered**

We believe a lot of confusion has existed about what is meant by *learner centered*. Some people equate learner centered with *child* or *student centered*. Generally, child or student centered refers to the use of schooling and learning practices that apply to learners from the ages of two to twenty-one or twenty-five, learners in preschool through secondary or postsecondary school. We think the focus should be broader because it is clear that the twelve principles apply to all individuals, from the very young to the very old, from students in the classroom to teachers, administrators, parents, and others influenced by the process of schooling and by other formal and informal learning experiences.

Some people equate learner centered both with child or student centered and with a focus on the affective side of education—the quality of interpersonal relationships and learning environments. They equate it with creating climates of caring and with focusing on fostering students’ self-esteem and sense of well-being. Again, we believe these are important but make up only part of the picture. The domains covered by the principles—the metacognitive and cognitive, affective, personal and social, developmental, and other individual differences factors— emphasize *both* the learner and learning. A central understanding that emerges from an integrated and holistic look at the principles is that for educational systems to serve the needs of *all learners*, it is essential that they have a focus on the individual learner as well as an understanding of the learning process. Thus, we have evolved the following definition of learner centered:

Learner Centered: The perspective that couples a focus on individual learners (their heredity, experiences, perspectives, backgrounds, talents, interests, capacities, and needs) with a focus on learning (the best available knowledge about learning and how it occurs and about teaching practices that are most effective in promoting the highest levels of motivation, learning, and achievement for all learners).

### **PREPARATION:**

In order to focus your thinking as you begin this session, please read the following excerpt also from *The Learner-Centered Classroom and School* and then consider the questions that follow. With your study team, explore the significance of the questions and how your answers will affect your students.

#### *Premises of the Learner-Centered Model*

1. Learners are distinct and unique. Their distinctiveness and uniqueness must be attended to and taken into account if learners are to engage in and take responsibility for their own learning.

2. Learners' unique differences include their emotional states of mind, learning rates, learning styles, stages of development, abilities, talents, feelings of efficacy, and other academic and nonacademic attributes and needs. These must be taken into account if all learners are to be provided with the necessary challenges and opportunities for learning and self-development.
3. Learning is a constructive process that occurs best when what is being learned is relevant and meaningful to the learner and when the learner is actively engaged in creating his or her own knowledge and understanding by connecting what is being learned with prior knowledge and experience.
4. Learning occurs best in a positive environment, one that contains positive interpersonal relationships and interactions, that contains comfort and order, and in which the learner feels appreciated, acknowledged, respected, and validated.
5. Learning is a fundamentally natural process; learners are naturally curious and basically interested in learning about and mastering their world. Although negative thoughts and feelings sometimes interfere with this natural inclination and must be dealt with, the learner does not require "fixing."

- Barbara L. McCombs & Jo Sue Whisler,  
*The Learner-Centered Classroom and School*

### **FOCUS QUESTIONS:**

In reference to the above excerpt, consider the following questions and discuss your answers with your study team.

1. If the premises listed above are for a learner-centered approach to education, what do you believe would be the premises for a teacher-centered approach? Share your answer with your study team and discuss the differences between the two approaches.
2. Consider your answers to the question above. Do aspects of both approaches have value in certain situations? Why? Why not?
3. What aspects of your current approach to teaching would you consider to be learner-centered?
4. With respect to the premises listed in the excerpt, consider Dr. William Glasser's three conditions for a quality school: 1. Providing a warm, supportive classroom environment; 2. Asking students to do work that they perceive as useful; 3. Encouraging students to evaluate their own work. Are Dr. Glasser's conditions consistent with a learner-centered approach to teaching? Why? Why not?

### **VIDEO PROGRAM:**

View the video program for this session, "Improving Student Performance: An Introduction." It is the first program on Tape #1. The running time for this video is 29 minutes.

### **VIDEO PROGRAM OVERVIEW:**

The video program for this session features educators and teacher-training experts exploring what must be done to meet the challenge of improving student achievement. A view shared by nearly all of those interviewed is that improving achievement requires caring, trusting student-teacher relationships. This program also presents an overview of the videos for the remaining sessions in this course.

## **VIDEO CONTENT OUTLINE:**

### 1. Improving student-teacher relationships is crucial to improving student achievement

- A. Creating an environment that fosters positive relationships
- B. Strategies for improving relationships

### 2. Course Overview

#### A. Session #2: Creating a Positive Learning Environment

- i.) The relationship between discipline and learning
- ii.) Boundaries: Clarity
- iii.) Boundaries: Win-Win

#### B. Session #3: Behavior, Learning and Boundaries

- i.) Boundaries: Proactivity
- ii.) Boundaries: Proactivity
- iii.) Boundaries: Follow Through

#### C. Session #4: Strategies for Improving Student Performance, Elementary and Middle School

- i.) Lessons that meet students' needs: elementary/middle
- ii.) Lessons that engage students: elementary/middle

#### D. Session #5: Strategies for Improving Student Performance, Secondary School

- i.) Lessons that meet students' needs: secondary
- ii.) Lessons that engage students: secondary

#### E. Session #6: Connections: The Key to Effective Teaching, Part One

- i.) Choice Theory vs. Control Theory
- ii.) Choice Theory and brain function
- iii.) American Medical Association research

#### F. Session #7: Connections: The Key to Effective Teaching, Part Two

- i.) How a lack of "connectedness" affects learning
- ii.) Identifying students who are the disconnected.
- iii.) How Choice Theory can help those who are disconnected.

#### G. Session #8: Student-Teacher Relationships and Improving Achievement

- i.) Achievement and connecting with students
- ii.) Strategies to improve teacher-student connections

#### H. Session #9: The Parents' Role in Improving Student Achievement

- i.) Achievement and connecting with parents
- ii.) Strategies to improve teacher-parent connections

- I. Session #10: Questioning Techniques that Promote Learning
  - i.) Questioning, problem-solving and learning
  - ii.) Examples of effective class meetings
- J. Session #11: A Student-Created Rubric for Quality
  - i.) Involving students in defining quality
  - ii.) Example of a class meeting about quality
- K. Session #12: New Approaches to Assessing Student Achievement
  - i.) An alternative approach to letter grades
  - ii.) Involving students in assessing their own progress
- L. Session #13: Using Stories to Improve Comprehension and Retention: Elementary and Middle School
  - i.) How the use of stories in instruction can improve comprehension and instruction at the elementary and middle school levels
  - ii.) Elementary and middle school examples of using stories in instruction
- M. Session #14: Using Stories to Improve Comprehension and Retention: Secondary School
  - i.) How the use of stories in instruction can improve comprehension and instruction at the secondary school level
  - ii.) Secondary school examples of using stories in instruction
- N. Session #15: An Appreciation of the Teacher's Role in Effective Education
  - i.) The teacher's role in improving student achievement
  - ii.) Teaching, learning, success

## **VIDEO AND READING FOCUS QUESTIONS**

With respect to the information present in the video program and the reading assignment, consider the following questions. Discuss your answers with your study team.

1. With your study team, discuss the relationship between relationships and students achievement. In your discussion consider the excerpt from *The Learner-Centered Classroom and School* that you read at the beginning of this session.
2. How important do you believe classroom climate is in improving student achievement?
3. In what ways does your current classroom environment promote student risk-taking and achievement?
4. Review the Video Program Outline provided above. Which of sessions 2-15 do you believe will be most applicable to your own teaching situation?
5. What do you believe would be a reasonable, reach-able goal for you to achieve by the end of this course? How would you assess whether that goal was achieved?

## APPLICATION ASSIGNMENT:

This assignment is adapted from *The Learner-Centered Classroom and School* (used by permission.) It will assist you in applying course content to your own teaching situation.

1. Please read the following excerpt from *The Learner-Centered Classroom and School*.

Even educators who are open to change feel un-certainty about what kind of changes will be most effective and how best to go about making them. They also question whether any changes can be successful given what appears to be a complex and over-whelming set of problems and issues under-lying educational systems change. Feelings of fear, frustration, hopelessness, and despair abound, as well as a sense that “we’re already doing so much — how can we possibly do more?” In such an atmosphere, it is easy to hold on to old beliefs and assumptions, to stay within the comfort zone of old ways of thinking about and doing education, and to avoid the issue as long as possible. Is there a way to break through this resignation and inertia? What might increase hopefulness about change and thus willingness to change?

We have been taking these questions seriously as we ourselves examine our own beliefs and thinking about learning, learners, and teaching. We have looked to the research literature to inform us about what needs to change and why. We have challenged ourselves to discover a sound foundation of research-based principles that can guide the change process. In our efforts, we have learn-ed to question even the most pervasive assumptions and ideas being proposed. For example, we have learned from the research that not only *can* all students learn but also all students *do* learn. Re-search from cognitive and developmental psychology clearly supports the view that learning is a natural and ongoing process, that it occurs continuously for all learners, cradle to grave (Alexander & Murphy, in press; McCombs, 1994). We have examined the differences in educational systems based on the “can learn” versus the “do learn” philosophy and have seen clear evidence of the superiority of those systems that assume all students do learn (McCombs & Stiller, 1995). The “do learn” environments respect and accommodate student diversity by assuming that learning and motivation are natural and that students can be trusted to guide their own learning process; they do not have to be sorted by others into presumed categories of ability. Learning methods, content, and performance demonstrations are variable and determined with student input, not selected for students in ways that may limit student potential. Practices are inclusive and accepting of multiple abilities, and they value the cultivation and demonstration of diverse talents, both academic and non-academic.

Our examination has led us to a recognition that educational systems are more successful with more learners when they are designed from a research. based set of principles that *focus on learners and learning* and that are translated into a core Philosophy and culture. We also have realized that change is more likely to occur when educators and others are assisted in self-assessing and reflecting on their basic beliefs and assumptions, and in engaging in critical inquiry about issues identified in the research on learners and learning. We believe these are essential steps in the change process. We now challenge *you*, our readers, to assess your fundamental beliefs and assumptions about learners, learning, and teaching. Take a few minutes to engage in the self-assessment exercise . . . The more truthful you can be in your responses and the more you resist the temptation to give what you believe to be “acceptable” or “right” answers, the more useful the results of this assessment will be to you.

2. Next, complete the following Teacher Beliefs Survey

Please read each of the following statements. Then decide the extent to which you agree or disagree. Circle the number to the right of the question that best matches your choice. Circling #1 means that you **strongly disagree** with the statement; circling #2 means that you **somewhat disagree**; circling #3 means that you **somewhat agree**; and, circling #4 means that you **strongly agree**. Go with your first judgment and do not spend much time mulling over any one statement. **PLEASE ANSWER EVERY QUESTION.**

1. Students have more respect for teachers they see and can relate to as real people, not just as teachers.

1      2      3      4

2. There are some students whose personal lives are so dysfunctional that they simply do not have the capability to learn.

1      2      3      4

3. I can't allow myself to make mistakes with my students.

1      2      3      4

4. Students achieve more in classes in which teachers encourage them to express their personal beliefs and feelings.

1      2      3      4

5. Too many students expect to be coddled in school.

1      2      3      4

6. If students are not doing well, they need to go back to the basics and do more drill and skill development.

1      2      3      4

7. In order to maximize learning, I need to help students feel comfortable in discussing their feelings and beliefs.

1      2      3      4

8. It's impossible to work with students who refuse to learn.

1      2      3      4

9. No matter how bad a teacher feels, he or she has a responsibility not to let students know about those feelings.

1      2      3      4

10. Addressing students' social, emotional, and physical needs is just as important to learning as meeting their intellectual needs.

1      2      3      4

11. Even with feedback, some students just can't figure out their mistakes.

1      2      3      4

12. My most important job as a teacher is to help students meet well-established standards of what it takes to succeed.

1      2      3      4

13. Taking the time to create a caring relationship with my students is the most important element for student achievement.

1      2      3      4

14. I can't help feeling upset and inadequate when dealing with difficult students.

1      2      3      4

15. If I don't prompt and provide direction for student questions, students won't get the right answer.

1      2      3      4

16. Helping students understand how their beliefs about themselves influence learning is as important as working on their academic skills.

1      2      3      4

17. It's just too late to help some students.

1      2      3      4

18. Knowing my subject matter really well is the most important contribution I can make to student learning.

1      2      3      4

19. I can help students who are uninterested in learning get in touch with their natural motivation to learn.

1      2      3      4

20. No matter what I do or how hard I try, there are some students who are unreachable.

1      2      3      4

21. Knowledge of the subject area is the most important part of being an effective teacher.

1      2      3      4

22. Students will be more motivated to learn if teachers get to know them at a personal level.

1      2      3      4

23. Innate ability is fairly fixed and some children just can't learn as well as others.

1      2      3      4

24. One of the most important things I can teach students is how to follow rules and to do what is expected of them in the classroom.

1      2      3      4

25. When teachers are relaxed and comfortable with themselves, they have access to a natural wisdom for dealing with even the most difficult classroom situations.

1      2      3      4

26. Teachers shouldn't be expected to work with students who consistently cause problems in class.

1      2      3      4

27. Good teachers always know more than their students.

1      2      3      4

28. Being willing to share who I am as a person with my students facilitates learning more than being an authority figure.

1      2      3      4

29. I know best what students need to know and what's important; students should take my word that something will be relevant to them.

1      2      3      4

30. My acceptance of my-self as a person is more central to my classroom effectiveness than the comprehensiveness of my teaching skills.

1      2      3      4

31. For effective learning to occur, I need to be in control of the direction of learning.

1      2      3      4

32. Accepting students where they are—no matter what their behavior and academic performance—makes them more receptive to learning.

1      2      3      4

33. I am responsible for what students learn and how they learn.

1      2      3      4

34. Seeing things from the student's point of view is the key to their good performance in school.

1      2      3      4

35. I believe that just listening to students in a caring way helps them solve their own problems.

1      2      3      4

3. Read the following excerpt from *The Learner-Centered Classroom and School*:

Do teachers' learner-centered beliefs have a positive impact on student motivation, learning and success? Our research (McCombs & Stiller, 1995) looked at the impact of teacher beliefs on teacher perceptions of their classroom practices and at how teacher perceptions of practice differ from student perceptions of these same practices. In a large-scale study, we confirmed our hypothesis about the positive impact of beliefs and practices consistent with the research on learners and learning. We also found that teachers who are more learner centered are more successful in engaging more students in an effective learning process and are also more effective learners themselves and happier with their jobs. Furthermore, teachers report that the process of self-assessment and reflection – particularly on discrepancies between their own and their individual students' experiences of classroom practices—helps them identify areas in which they might change their practices to be more effective in reaching more students. This is an important finding that relates to the “how” of transformation. It says that helping teachers and others engage in a process of self-assessment and reflection provides a respectful and nonjudgmental impetus to change. Combining the opportunity for teacher self-assessment and reflection on beliefs and practices with skills training in how to create learner-centered schools and classrooms can help complete the transformation.

4. Calculate your Teacher Belief's Survey Score

The Teacher Beliefs Survey contains thirty-five items that form three major factors or categories of beliefs (listed below). These factors were defined on the basis of the research base contained in the learner-centered psychological principles (Presidential Task Force on Psychology in Education, 1993). They were verified in a large-scale validation of the survey with more than 660 middle and high school teachers from diverse rural, suburban, and rural school districts and geographic regions all over the United States.

*The Three Factors and the Items Contained in Each*

Factor 1: learner-centered beliefs about learners, learning, and teaching (survey items 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 30, 32, 34, 35)

Factor 2: non-learner-centered beliefs about learners (survey items 2, 5, 8, 11, 14, 17, 20, 23, 26)

Factor 3~ non-learner-centered beliefs about learning and teaching (survey items 3, 6, 9, 12, 15, 18, 21, 24, 27, 29, 31, 33)

When you completed the survey, you gave each item a value ranging from 1 to 4. Now, working by factor, add together the values for all the items in each factor. For factor 1, there are fourteen items. The total score possible on factor 1 ranges from a low of 14 (14 x 1) to a high of 56 (14 x 4). For factor 2, there are nine items. The total score possible on factor 2 ranges from a low of 9 (9 x 1) to high of 36 (9 x 4). For factor 3, there are twelve items. The total score possible on factor 3 ranges from a low of 12 (12 x 1) to a high of 48 (12 x 4).

Once you have totaled your score for the items in each factor, divide that total by the number of items in the factor to get your mean score. For example, if your total score on factor 1 is 30, your mean score is 30 divided by 14, or 2.14. Factor means for the validation sample are shown below. This sample contained results for 796 teachers, primarily in high schools but some in middle

schools, from around the country. They represent urban, suburban, and rural schools with a diversity of student populations.

*Validation Sample Means for Each Factor*

Factor 1: 3.22

Factor 2: 2.28

Factor 3: 2.31

Once you have calculated your mean for each factor, you can compare your mean scores with those of the validation sample to see how similar your beliefs are to this sample. The standard deviations for each factor are .40, .56, and .49, respectively. You can see whether your means differ significantly from those of the validation sample by seeing whether your means are more than a standard deviation higher or lower for each factor.

In general, teachers with learner-centered beliefs are those with means above 3.4 on factor 1 and below 2.0 on factors 2 and 3. Teachers with non-learner-center-ed beliefs are those with means below 2.8 on factor 1 and above 2.4 on factors 2 and 3.

5. Meet with your study team.

After you have calculated your score, reflect upon the results. Do the results indicate that your teaching is more or less learner-centered than you anticipated? Meet with your study team and share your score. How are your team members' scores similar? How are they different? With this survey what did you learn about yourself and your current approach to teaching? In what areas would you like to see some change? In what way? How do you believe this course will be able to help you make these changes?

## **PROGRESS REPORTING**

To conclude your learning activities for this session, please turn to the Progress Report form for Session #1. Progress Report forms for all sessions are placed together at the back of this Course of Study book for easy removal and evaluation.

## **Session Notes:**