4.1 Drawing on and valuing students’ background, interests, and developmental learning needs

DESCRIPTION

This element concerns the teacher’s ability to plan instruction that draws upon his or her students’ backgrounds, interests, and developmental learning needs. This is important because research in cognitive science shows that students learn not simply by memorizing facts, but by reconfiguring and reorganizing what they already know. Students’ experiences, both individual and cultural, are the essential material for learning. Drawing upon student interests helps motivate students to learn new content and skills in a familiar context. Teaching should bridge the content to be learned and the background knowledge and experiences of the students.

Background knowledge and experience include students’ prior knowledge of the subject; their skills, interests and motivation to learn; their developmental levels; and their cultural experiences. To draw upon these experiences, a teacher first needs to learn about them -- through home visits, conferences with community members, talks with parents, consultations with more experienced colleagues, or observation of their students in and out of school. Gaining information about some of these factors may be relatively straightforward. Less formal means, such as classroom discussion or observation of students, can contribute information not only about students’ prior knowledge, but also about their interests, motivation, developmental levels, and cultural resources. To the extent possible, teachers should become familiar with and sensitive to the background of students in different ethnic, language, socioeconomic, and exceptionality groups. However, group membership should never be used as a basis for stereotypical judgments about students.

While beginning teachers cannot be expected to have a thorough understanding of the various groups in society, they can begin to find out about the communities represented in their classes through the methods described above. They can take notice of the range of development exhibited by their students and consult with colleagues to learn additional grouping and instructional strategies to meet the needs of all students. They can then begin to adapt activities and to find materials that engage students in learning the content and skills in the curriculum through familiar contexts that include the students’ background knowledge, interests, and personal strengths. For example, a high school chemistry teacher may allow students to demonstrate their growing understanding of a specific concept by choosing from a list of various problems to explore, with both scaffolding and extension options available to enable all students to build on their previous learning. A fifth-grade teacher may use a K-W-L (What do I know? What do I want to know? What did I learn?)

4.2 Establishing and articulating goals for student learning

DESCRIPTION

This element refers to the teacher’s ability to translate important content into learning goals. “Learning goals” are the desired learning outcomes or objectives for a lesson. Goals can be expressed in various formats and terminology. It is critical that goals (what the teacher wants the students to learn) be clearly distinguished from activities (what the teacher wants the students to do).

Many kinds of learning can be expressed in learning goals. In many cases, goals refer to the knowledge to be learned - concepts, facts, procedures, and so forth. In other cases, goals may address other types of learning. These may include, but are not limited to, values, thinking skills, social skills, performance skills, and behavioral goals. Regardless of the goals, a teacher should be able to articulate how the students’ actions, attitudes, knowledge, and/or skills will be enhanced through participation in the learning activities.

The choice of learning goals will be affected by students’ developmental levels. The goals chosen should challenge most students, yet be within their grasp. The choice of goals will also be affected by home and school expectations for student learning and behavior. For example, communities differ in norms for interaction (e.g., the appropriateness of eye contact and touching) and in expected applications of literacy (e.g., books, journals, letters) and other school knowledge.

Goals should address both short-term and long-term learning, with the accomplishment of short-term goals logically contributing to the accomplishment of long-term goals. Specific goals should reflect students’ language, prior knowledge, and home and school experience. For example, a kindergarten teacher whose students are unfamiliar with books may set long-term goals of helping students understand conventions of print and that print has meaning. A sixth-grade mathematics teacher may select a short-term goal of students being able to use the concept of reflection to create a tessellated geometric design. In contrast is a teacher who creates fun activities but who is unable to relate them to desired student learning outcomes.

While the goals may initially be expressed in general terms, as teachers gain skill, they should be able to explain the appropriateness of the goals for particular individuals or groups of individuals in the class and to modify or adjust expected outcomes to meet the needs of those students.
4.1 Drawing on and valuing students’ background, interests, and developmental learning needs (continued)

chart to begin each unit of instruction. In contrast is a teacher who year after year uses the same lesson plans delivered at the same pace, regardless of indications of lack of student understanding or interest.

The extent to which it is possible for teachers to become familiar with the various aspects of individual students’ background knowledge and experiences may be affected by many factors, such as the number of students in the classroom and the amount of time each day that the teacher spends with a particular group. Regardless of their teaching assignments, however, all teachers need to know various strategies for learning about students’ backgrounds and experiences, and they need to be able to use their knowledge of their students’ backgrounds and experiences in instruction.

As teachers gain more experience, they will learn more about students in the community or communities in which they teach, and about the typical range of development in their class(es). They should build a repertoire of instructional activities and materials to draw upon that will meet the needs of all their students.
4.3 Developing and sequencing instructional activities and materials for student learning

DESCRIPTION

This element refers to the teacher’s ability to structure learning activities over time to help students achieve specific learning goals. Instructional activities are what students do (e.g., read, write, talk together, perform an experiment). Instructional materials are what students use (texts, objects, handouts) when engaging in the instructional activities. A teacher sequences instruction by choosing or creating instructional activities and materials that follow each other in such a way that each subsequent activity either builds on previous activities or activates prior knowledge to lead students to achieve the intended learning goals.

Students differ in their responses to particular learning activities and materials. Offering a variety of materials or options within activities that reflect multiple modalities is most likely to enable every student to engage with the content in a way that they can understand. For English learners, it is particularly important that the materials and activities be structured in a way that is accessible, given their current stage of language development. Activities are also more likely to result in student learning if they are linked to students’ interests and prior knowledge and experiences.

The sequence of activities and materials must also reflect learning goals that specify the knowledge, skills, and abilities that students are to acquire. The sequence should reflect a logical plan to clarify the content or concepts, develop the skills, and/or memorize the basic facts required to meet the learning goals. A teacher should be able to explain this plan and make comprehensible to students how the content of a particular lesson or learning activity fits with what came before and what will follow if the sequencing is out of the teacher’s control, as when learning objectives and activities are standardized across a grade level or course, the teacher should still be able to identify and explain the connections between activities, materials, and learning goals.

An example for sequencing activities and materials includes giving directions for an open-ended task, providing opportunities to work on the task in small groups, and writing individual descriptions of what was learned. A continuation high school social studies teacher might have students learn about the Supreme Court by becoming experts on one Supreme Court case, and creating a newspaper written the day after the Court announces its decision. The newspaper would include a summary of the case and decision, two letters to the editor portraying different perspectives on the case, and an eyewitness account. These examples contrast with a classroom where

4.4 Designing short-term and long-term plans to foster student learning

DESCRIPTION

This element refers to the teacher’s ability to translate content into a set of short-term and long-term learning goals for students and a sequence of learning activities and materials. To do this, teachers need to understand the structure or hierarchy of a discipline and know how mastery of one element is prerequisite to or related to learning another. Teachers also need to understand their district’s curriculum and the particular concepts, knowledge, and skills that students are expected to master by the end of the school year.

In planning, teachers sequence lessons and learning activities. They draw upon knowledge of the subject matter to identify where the current lesson or learning activity fits within the broader scope of the discipline as a whole as well as the curriculum. In constructing the sequence, they not only think of specific knowledge, skills, and abilities that they expect students to learn, but also how this student learning will contribute to students being able to achieve the learning goals sets for the entire year.

Planning includes identifying the major categories of knowledge, skills, and abilities that students are expected to accomplish over the year, and breaking them down into logically sequenced learning goals that reflect sets of more specific knowledge, skills, and abilities. Strategies to support this process for teachers who are new to a particular grade level include examining the table of contents of textbooks; talking to other teachers at the same grade level or teaching the same course; and studying the district and/or school curriculum, grade-level expectations, or standards. Teachers can then translate these general learning goals into specific sequences of lessons composed of learning activities drawing upon student interests, experiences, and prior knowledge. They can also estimate the time necessary to complete the learning activities to ensure that they can be finished within the time available. Again, teachers who are new to a particular course or grade level can consult with colleagues, examine different instructional materials, and think about their observations of students in and out of school. They can choose or create specific learning activities, instructional materials, and assessments that are appropriate for their students’ prior knowledge, interests, and backgrounds.

For example, a middle school science teacher may create or use a syllabus for the course to distribute content and learning goals across the year, beginning with prescribed materials and procedures and progressively allowing students to assume more responsibility for designing and conducting experiments. A fifth-grade teacher trying to encourage students to use more expressive language might
4.3 Developing and sequencing instructional activities and materials for student learning (continued)

the teacher fails to ensure that all students have the knowledge (e.g., reading, writing, measuring) needed to complete a learning activity, where earlier activities in a sequence depend on knowledge gained in later activities, or where the purpose of learning activities over several days or weeks is not clear.

As teachers gain skill, they are better able to examine a learning goal and to determine the knowledge, skills, and abilities required to meet the goal. They match this against the current knowledge, skills, and abilities of their students, and select or create a series of activities to help students acquire what they need to successfully achieve the goal. Over time, teachers are also better able to anticipate and respond to differences among students by providing a range of materials and/or levels of support during the learning activities.

4.4 Designing short-term and long-term plans to foster student learning (continued)

ask students to draft a story, compare texts by different authors in terms of the specific images evoked, and then revise their stories to include more vivid details. In contrast is a teacher who looks for activities to keep students busy, without regard to learning objectives, or a teacher who carefully sequences activities to achieve content-based learning goals but who does not check that the activities are comprehensible to the students through connections with their prior knowledge and experiences. As teachers gain skill, they become more familiar with the curriculum and grade-level or course expectations and how they are translated into year-long learning goals. They become familiar with the length of time that different types of activities take and are better able to select a manageable series of learning activities to develop student knowledge and skills and to promote student understanding of complex concepts. They are also more skilled at seeing learning opportunities in activities (e.g., teaching symmetry through origami).
4.5 Modifying instructional plans to adjust for student needs

DESCRIPTION

This element refers to the teacher’s ability to determine, both during and after a lesson, whether students are making progress toward the learning goals, and to make changes in plans for instruction if they are not. The teacher must monitor students’ understanding of content through a variety of means, making changes to plans in response to observed difficulties that students are having with the instructional materials, the learning activities, or the content.

Monitoring may be accomplished by a variety of informal and formal means -- asking questions, paying attention to nonverbal cues from students, watching for signs of students progress and misconceptions when checking student work. In a culturally diverse classroom, the teacher should be especially sensitive to the verbal and nonverbal signals that each student might use to indicate that she or he does not understand what is expected. This may require insight into culturally specific ways of expressing understanding and confusion. For example, silence may denote comprehension in one group but confusion in another.

Teachers also engage in long-term monitoring of student understanding through reflecting on a lesson or a series of lessons in light of student work or the pattern of student responses over time. This reflection focuses on the extent to which students were able to meet the learning goals, and how specific instructional methods, learning activities, and materials might have facilitated or hindered student understanding. If students are not meeting the learning goals, a teacher should not simply move on to the next topic. Instead, the teacher should modify his or her instructional plans to re-teach the missing concepts, methods, or skills, and/or incorporate further work on them in future instruction.

The modifications that a teacher might make in response to observed student difficulties include such things as supplying a different type of example, providing more structure for an activity, extending the period of time for students to work, scaffolding an activity so that students can accomplish more than they might on their own, or approaching a concept through a different medium. For example, a seventh-grade social studies teacher might provide a graphic organizer to help students understand a textbook passage. A first-grade teacher might have students talk about what was easy and what was difficult about the unit that they just completed. These teachers could collect information about their students’ responses to different activities and modify the next use of each activity, as indicated. These examples contrast with that of a teacher who carries out the original plan despite evidence that students are not understanding the content, or one who teaches to the “middle of the class,” ignoring the individual needs of those who master the content easily as well as those who need more support. Teachers may also choose to adjust instruction not because of unexpected problems, but because they recognize a “teachable moment” and change plans to capitalize on it.

As teachers gain skill, they develop a wider repertoire of strategies for monitoring student learning. As they become more familiar with common student misconceptions and with a variety of student performances, they are able to anticipate student misunderstandings and difficulties and to check for them during instruction and learning activities. They are more able to respond to signs of student misunderstanding with a wider repertoire of modifications to accommodate diverse student needs.