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Introduction

Teaching adolescents effectively requires an understanding of who they are, how they think, learn and feel, and of the impact of curricular and instructional decisions on the quality of their learning experiences. The goal of this book is to help to create this understanding. It is written for preservice and practicing teachers of adolescents, and for teacher educators. Its intent is to profile the adolescent as a learner whose intellectual, emotional, and social needs must be considered primary in the learning process. *Teaching with Adolescent Learning in Mind's* ultimate purpose is to affirm the strategic and powerful role of the teacher in structuring a responsive, supportive, and challenging learning environment for adolescents.

Teaching adolescents is more challenging than in past decades. Raised in an era of easy access and early exposure, these youth know more questions to ask and how to find answers more quickly. They are impatient with redundancy and skeptical until proof is apparent. They are irritated when their teachers do not have control, do not know their subjects, or try too hard to be “cool.” Unfortunately, many adolescents are enticed by experiences far more appealing than those found in the typical classroom, and they often see little relevance to what they are learning there. What is equally disturbing is that many students are graduating from high school with limited understanding of content and with minimal practice in the cognitive skills necessary to attain this understanding (Gardner 1999, Wiggins and McTigue 1998).

So much is acknowledged about the classroom conditions and instructional practices that best promote adolescent thinking and learning, yet the observed variability in methodology, level of student involvement, nature of assessment, and physical environment suggests vastly differing perceptions among teachers. In the new millennium, the specialization of knowledge will be imperative, global competition will be the norm, and “thinking for a living” will be the expectation (Marsh 1999). Adolescents will also need the skills for emotional control, reasoned decision making, and moral judgment. They must be prepared



Understanding the Adolescent as Learner

More Different than Alike

Any attempt to typify adolescents is challenged by a simple look inside a middle or high school classroom. Beneath plaid shirts and loose-fitting tees, under denim and khaki, in tennis shoes and squared-off boots, with caps and without, trend-setting or trend-defying, adolescents are a group of individuals who differ by size, shape, age, race, taste, gender, ethnicity, and socioeconomic status. Their interests, personalities, abilities, needs, and experiences are as varied as their attitudes, beliefs, perceptions, and feelings. What they fear, what they value, what they anticipate, and what they trust differ. The circumstances of their births, the events of their lives, and the expectations of their respective cultures have shaped each in unique ways. They are different in what they know, how they express themselves, and in what they need in order to learn.

The heterogeneous, multicultural, and multilingual adolescent population is increasingly complex. Language, custom, and value systems distinguish students, as does access to opportunity, privilege, and



*Your
Ideas*

The Adolescent Perspective

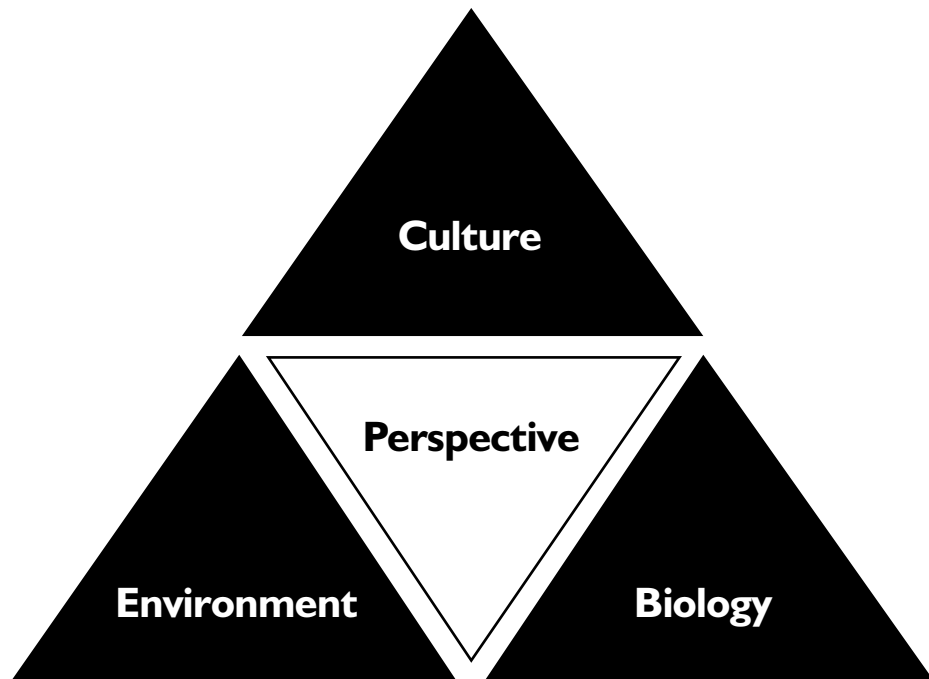


Figure 1.1

under the following circumstances:

- **Adolescents “do something” that makes sense in a larger context, such as confronting real-life issues and problems.** For example, the complexity of citizens’ rights is better understood when students follow legislative debates over gun control and discuss continuing problems of school violence.
- **Their personal initiative and energy are moved into action through meaningful involvement with relevant and current content.** For example, health issues take on new meaning when students conduct a research awareness campaign on the life-threatening impact of cigarette smoking and discuss the ethics of juvenile-targeted advertisement.
- **Their cognitive and affective capabilities are challenged, such as when connections are made between difficult content and its application to personal experiences.** For example, physics gains relevance when adolescents observe the movement of playground equipment at the neighborhood park.

Adolescent-Centered Teaching

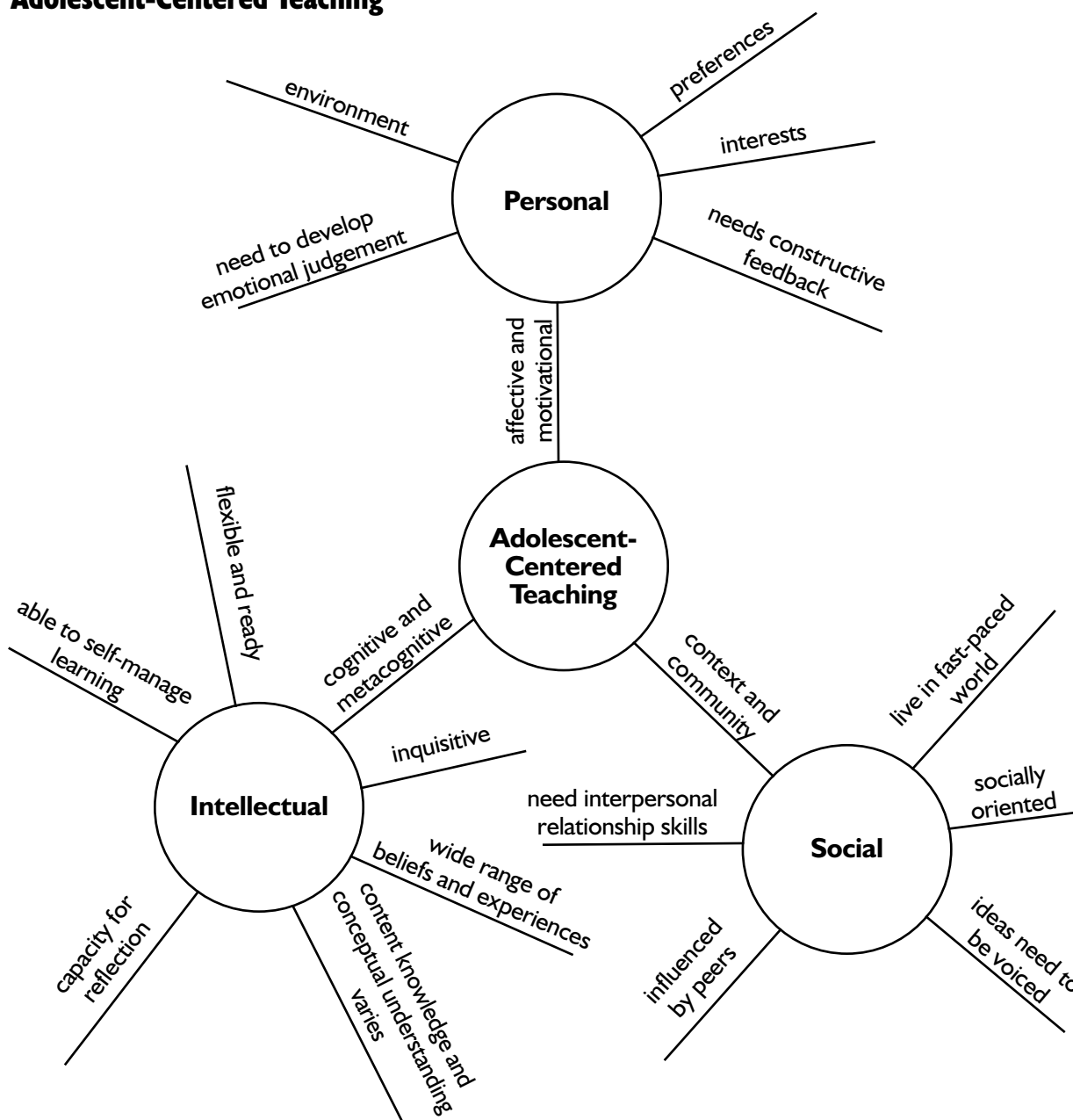


Figure 1.3

Motivation is individual and elusive, important to learning, yet influenced by a person’s beliefs, feelings, interests, and goals (Lambert and McCombs 1998). Motivation affects adolescents’ willingness to learn and the amount of effort they will exert in the process (Alexander and Murphy 1998). It can be influenced by several factors, which include the following:



Promoting Metacognitive Development: Dr. DNA

Adolescents are intrigued by realistic and puzzling phenomena that stimulate their curiosity and challenge their thinking. Complex content and ideas can be presented in an authentic format that engages problem-solving skills, allows for choice and creative expression, and promotes metacognitive reflection. The teacher's role is to help students to develop strategies for learning, to ask for rationale, to give feedback, to encourage self-monitoring, and to help them extend the learning into real life situations.

Content Understanding

Teachers should consider the essential understanding of the discipline and the pertinent state and national curriculum standards. Goals should be set accordingly.

- To help adolescents discern the relationship among DNA, RNA, proteins, and genetics and to develop skills for scientific inquiry and problem solving.

ESSENTIAL QUESTION

What is DNA and how does it contribute to genetics and life diversity?

Strategies for Inquiry

Adolescents are motivated and challenged by authentic and intriguing events, problems, and questions. Teachers should consider ways to stimulate their curiosity to explore, investigate, and solve.

The Inquiry Event: Dr. DNA, a renowned microbiologist and geneticist, was scheduled to present important findings on the causes of diversity in living organisms at an international science symposium. While crossing a busy intersection on the way to the convention center, Dr. DNA was struck by a speeding van and killed. Valuable research notes were scattered at the accident scene. The National Science Foundation has assembled a group of scientists to reconstruct Dr. DNA's theory from the retrieved papers. You (the student) have been chosen to join this important team.

Adolescent Developmental Tendencies and Implications for Learning
Personal

Anxious for developmental normality
 Easily angered, slow to recover
 Push for independence, autonomy
 Easily discouraged if do not achieve

Learning Needs

Climate of acceptance, tolerance
 Emotional safety, guidance
 Choice, responsibility, accountability
 Appropriate challenge, relative success

Intellectual

Have diverse knowledge, interests, abilities
 Can see relationships among similar concepts, ideas, and experiences
 Capable of inferential thinking, reasoning
 Capable of critical evaluation, extended focus
 Reflective, metacognitive, self-motivated

Learning Needs

Opportunities to develop range of skill and to pursue variety of content areas
 Complex subject matter, relevant issues
 Higher-level, analytical questioning
 Time and opportunity for critical thinking
 Self-evaluation, choice

Social

Can be indifferent to adult figures
 Concerned about self-presentation to peers
 Strive to conform for peer acceptance

Learning Needs

Opportunity to interact with knowledgeable adults in collaborative projects
 Emphasis on cooperation, inclusiveness, group contribution
 Structured, positive student interaction

Figure 1.5

in a particular area, adolescents tend to be less confident in their abilities to succeed in related learning situations (Bandura 1993). When adolescents believe in their own learning capabilities, however, and have the adequate knowledge or skill base, they tend to “participate more readily, work harder, and persist longer even when they encounter difficulties” (Schunk 1994, 79).

Adolescents’ self-views are tied closely to what they believe about their own competence and ability, and the level of control they think they have to manage the effort needed to accomplish a task. These per-