tions, frames of reference, perspectives, and biases within a discipline influence the ways in which knowledge is constructed. When the knowledge construction process is implemented in the classroom, teachers help students to understand how knowledge is created and how it is influenced by the racial, ethnic, and social-class positions of individuals and groups (Code, 1991; Harding, 1991). *Positionality* is the term used to describe the ways in which race, social class, gender, and other personal and cultural characteristics of knowers influence the knowledge they construct or produce.

In the Western empirical tradition, the ideal within each academic discipline is the formulation of knowledge without the influence of the researchers' personal or cultural characteristics (Myrdal, 1969). However, as critical theorists, scholars of color, and feminist scholars have pointed out, personal, cultural, and social factors influence the formulation of knowledge even when objective knowledge is the ideal within a discipline (Banks, 1996; Code, 1991; Collins, 1998). Often the researchers themselves are unaware of how their personal experiences and positions within society influence the knowledge they produce. Most mainstream U.S. historians were unaware of how their regional and cultural biases influenced their interpretation of the Reconstruction period until W. E. B. Du Bois (1935) published a study that challenged the accepted and established interpretations of that period.

It is important for teachers as well as students to understand how knowledge is constructed within all disciplines, including mathematics and science. Social scientists, as well as physical and biological scientists on the cutting edges of their disciplines, understand the nature and limitations of their fields. However, the disciplines are often taught to students as a body of truth not to be questioned or critically analyzed. Students need to understand, even in the sciences, how cultural assumptions, perspectives, and frames of reference influence the questions that researchers ask and the conclusions, generalizations, and principles they formulate.

Students can analyze the knowledge construction process in science by studying how racism has been perpetuated in science by genetic theories of intelligence, Darwinism, and eugenics (Gould, 1996; Harding, 1998). Scientists developed theories such as polygeny and craniometry that supported and reinforced racist assumptions and beliefs in the eighteenth and nineteenth centuries (Gould, 1996; Hannaford, 1996). Although science has supported and reinforced institutionalized racism at various times and places, it has also contributed to the eradication of racist beliefs and practices. Biological theories and data that revealed the characteristics that different racial and ethnic groups share, and anthropological theory and research about the universals in human cultures, have contributed greatly to the erosion of racist beliefs and practices (Benedict, 1940; Boas, 1940).

Knowledge Construction and the Transformative Curriculum. The curriculum in the schools must be transformed in order to help students develop the skills needed to participate in the knowledge construction process. The transformative curriculum changes the basic assumptions of the curriculum and enables students to view concepts, issues, themes, and problems from diverse ethnic and cultural perspectives (Banks, 1996). The transformative curriculum can teach students to think by encouraging them, when they are reading or listening to resources, to consider the author's purposes for writing or speaking, his or her basic assumptions, and how the author's perspective or point of view compares with that of other authors and resources. Students can develop the skills to analyze critically historical and contemporary resources by being given several accounts of the same event or situation that present different perspectives and points of view.

Teaching about Knowledge Construction and Production. Teachers can use two important concepts in U.S. history to help students to better understand the ways in which knowledge is con-