
Summarized by Matt Guers (Spring 05) According to Shulman, PBL is not a cure-all. Some pedagogical claims associated will PBL can be supported and others refuted. In order to have the best effect on learning, Shulman argues that PBL must be blended with other strategies.

Shulman presented a historical reflection on the origins of PBL. Specifically, PBL is closely related to the concept of “learning by discovery.” This concept can be traced back to Dewey and possibly “even earlier antecedents.” More recently, Piaget and Bruner advocated learning by discovery. Therefore, discovery learning is a concept that has been in and out of practice over time. Shulman claimed that this was due to the problems inherent in the “family of problem-based pedagogies.” Although, learning through discovery is believed to be more effective, it “varies enormously depending on what you’re teaching to whom.” In addition, discovery in and of itself is inefficient. Jerome Bruner, a noted cognitive psychologist, also acknowledged the limitations of PBL and pointed out that “it must be understood strategically, contextually, and [used] selectively.”

Shulman also discussed the history of medical education. Prior to 1910, medical education was apprenticeship based. It was “problem based [and] contextually rich.” In 1908, Abraham Flexner began a landmark study of medical education for the Carnegie Foundation for the Advancement of Teaching. Flexner found the apprenticeship-based medical education of the time to be unsupervised, ineffective, “undisciplined,” and “out of touch with the scientific progress” in the field. Flexner revised the curriculum by postponing the problem-based (clinical) experience until late in the course of study. In his model, Flexner was essentially proposing discipline-based, sequential studies to fix a faulty problem-based education.

Shulman (and others) questioned this disciplined, sequential approach. Shulman and his colleagues at Michigan State (1968) wanted to utilize problem-based techniques from the “first day of study.” However, their efforts were greatly hindered by an accreditation process geared towards disciplined-based, sequential study.

The interesting thing is that Flexner’s ideas (1916, “A Modern School”) were a basis for creating the problem-based Lincoln School of Teachers College, Columbia University. In the case of the Lincoln School, PBL was used to revise the “stagnant, uninspiring” education he observed in elementary education. This so-called Flexnerian Paradox illustrates the challenge in deciding when and for whom PBL is good.

Shulman went on to say that there are six features which characterize problem-based pedagogies. First, “real problems engage students.” They stimulate and hold students’ attention. Second, understanding of the material is occurring. The third claim is that PBL leads to performance. “Learning comes out of the closet” in the presence of others and depends learning. Fourth, the performance must stop to allow reflection upon learning. The fifth component is generativity. This is the “belief that there is something more natural about this kind of learning.” Students are propelled by “engagement with the problem” and not simply by obtain a grade. The final characteristic is commitment. This is the emotional and moral component of learning and development.” In addition to cognitive growth, these pedagogies aim to form “new sets of dispositions, habits, and commitments that lead us to value learning.”

Shulman concluded that, despite these six features, problem-based learning provides “no clear advantage” over alternatives. However, Shulman believed that PBL “promotes teacher learning far more” than traditional approaches. PBL enables learning about teaching. If we consider the articles by Kember and Martin, PBL is a means for teachers to learn how their conceptions or intentions influence teaching practice and learning.