# INTERACTIVE PROBLEM SOLVING - FROM A STATIC TO A DYNAMIC PERSPECTIVE 

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Problem solving competency is a central objective within the educational programs of many countries. The acquisition of increased levels of problem solving competency provides a basis for future learning, for effective participation in society and for conducting personal activities. Students need to be able to apply what they have learned to new situations. Problem solving requires the transformation of a given state to a desired goal state. Traditionally, problem solving was measured via the solution activities in the context of static tasks, i.e. tasks that did not change over time. In the PISA 2012 Framework, a shift from these static tasks to more interactive problems has occurred. Authentic, relatively complex problems will be used within the PISA 2012 problem solving assessment. These tasks require direct interaction by the solver to uncover and discover relevant information. Examples are the problems commonly faced when using unfamiliar everyday devices such as remote controls, personal digital devices (e.g., mobile phones), home appliances, and vending machines. Other examples arise in situations such as physical conditioning, feeding animals, growing plants, and social interactions. Problem solving skills are necessary to achieve more than a basic level of skill in dealing with such situations. Interactive problem solving is a step towards the interplay between a person striving for a goal and an unknown environment that responds dynamically to the activities of the problem solver. At the same time, the focus on the interaction gives a more distinct weight to the process of problem solving. The talk presents the rationale for this paradigm change, explains the theoretical background for the development of interactive problems, and demonstrates some examples.

