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**Intellectual engagement and other principles of mathematics instruction.**

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Summary: In this article, mathematics teachers in the United States were asked what constitutes a high-quality mathematics lesson. The returned responses varied greatly. This same question was asked of Japanese teachers also. For a clearer picture both American and Japanese teachers were directed to comment on videotaped mathematics lessons taught in both countries. The results suggested that American teachers view many strategies as acceptable; as a group, they did not have a clear picture of what best practice looks like. In contrast, Japanese teachers seem generally to agree on characteristics of high-quality instruction. Japanese students' high scores on international comparisons and their teachers' highly rated lessons led to an investigation of how Japanese colleagues perceive high-quality instruction. Conversations were analyzed between three cooperating teachers and three student teachers in a Japanese junior high school during a four-week student teaching experience. The main sources of data for this study were the recorded prelesson conversations between the student teacher and the cooperating teacher, along with the postlesson reflection meetings. The authors organized and summarized the results of the analysis of their data as "six principles" of Japanese teachers' conception of high-quality mathematics instruction. These six principles can be implemented in a variety of effective instructional strategies and methods. These principles seem to provide a solid basis for high-quality instruction, although clearly they do not capture everything that is important in a lesson. The authors suggest some ways in which knowledge of these principles could assist teachers in improving the quality of their lessons. (ERIC)

*Classification:* D30 D40

*Keywords:* best practices; teacher attitudes; student teachers; teaching methods; instructional effectiveness; learner engagement; student motivation; goal orientation; educational objectives; knowledge level; high-quality instruction; cultural differences

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