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Padraig M. McLoughlin (mclough1@kutztown.edu), 265 Lytle Hall, Dept. of Mathematics, Kutztown University of Pennsylvania, Kutztown, PA 19530, and **Perry Y. C. Lee*** (plee@kutztown.edu), 267 Lytle Hall, Dept. of Mathematics, Kutztown University of Pennsylvania, Kutztown, PA 19530. *Inquiry-Based Learning and the Moore Method Works: Giving Students the Opportunity to Effectively Communicate Mathematical Ideas.*

Learning requires doing, and only through inquiry is learning achieved. This paper proposes use of Inquiry-Based Learning (IBL) across mathematics curriculum. The authors opine that students understand by both asking and answering questions; by engaging; and, by explaining to one's self and one's peers' concepts. IBL creates a dynamic learning environment which enables students to understand math.

One author is new to IBL and is using IBL methods in his classes; he attended an IBL workshop sponsored by the MAA and the Educational Advancement Foundation (EAF) and is incorporating IBL-based style in his teaching methods. The other author has used a modified Moore method (MMM) in classes he has taught for about 30 years from freshman through graduate-level courses.

We discuss the techniques used to facilitate learning, and present both the successes and the failures. We focus on how IBL through speaking effectively forges students' confidence, and motivates students to hone their precise use of language to communicate math. IBL encourages students to delve deeply into concepts rather than shallowly be trained to regurgitate information.

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