

Today I am representing the MACTE Executive Committee and the consensus of the membership in opposing the proposed rule to permit meeting the qualifications for licensure by examination on the basis of passing a required Praxis II test.

The Minnesota Board of Teaching has strong standards for the preparation of science teachers. The current Minnesota standards require evidence that candidates for science teacher licensure have had the opportunity to learn content knowledge and science skills through their coursework. Evidence also has to be provided that candidates have had their content knowledge and science skills are assessed through their courses. These standards are consistent with the National Science Teachers' Association (NSTA) position statement on science teacher preparation that calls for science teachers to "develop robust science knowledge and skills." A depth and breadth of learning opportunities and assessments is currently required **prior** to candidates completing a Praxis II exam.

The proposed rule does not ensure sufficient science knowledge and skills will be present in candidates who are seeking an additional science license. Representatives of the Educational Testing Service (ETS), the company that produces the Praxis II, have made presentations to the MN Board of Teaching in the past two years. The ETS representatives have been clear in stating the Praxis II test may be used to demonstrate a minimal knowledge base in a subject, but the Praxis II can not be used to prove a potential science teacher has the "robust science knowledge" to become a science teacher. They have stated that the Praxis II should not be the sole determinant of knowledge competency for teaching a subject. And they agree that the Praxis II does not address pedagogical content knowledge – the knowledge and skills needed to help students understand the subject. We need to be clear in these discussions that this rule is stating the **only** evidence of content and pedagogical knowledge needed to teach a science subject is passing the Praxis II. A teacher does not need to have taken even one course related to the subject.

As noted in the NSTA position statement on teacher preparation, science skills are critical in science learning and teaching. Each science discipline includes a unique set of skills that require practice and a basic level of mastery. Current Minnesota standards ensure science teacher candidates have had opportunities to learn and be assessed on their science skills. The Praxis II science exams provide some evidence that candidates know about science skills, but the Praxis II does not provide authentic assessments of candidates' abilities to apply their science skills. Demonstrated competencies with science skills are necessary for student safety.

Current Minnesota standards require evidence that science teachers have demonstrated their teaching competence in a supervised field experience. The full set of laboratory skills, content knowledge, and pedagogical knowledge required for each science discipline is unique. MACTE believes a supervised field experience is an essential requirement for licensure in **each** science discipline.

MACTE recognizes the need for more science teachers and for teachers who are licensed in multiple science disciplines. MACTE institutions presently provide summer, evening, and workshop programs that allow science teachers to add a license without compromising the state's current high standards for teachers. MACTE institutions will continue to expand these opportunities to meet the needs of teachers who want to add a science license. Support and incentives for teachers to add science licenses could help meet our increasing needs for skilled, knowledgeable science teachers. Lowering standards by permitting a single test to establish science teaching competence is not appropriate and does not meet the state's long-range needs.

Minnesota needs to maintain its national leadership in standards-based science teacher preparation in order to safely provide the best science education for all students.