

*Teacher Technology Competence: The Urgently to Improving Vocational High School  
Teachers Competence in Indonesia*

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As the twenty-first century approaches, the literate citizen is increasingly expected to use computer technology to access and manipulate information. Knowing how to manage electronic information from an ever-widening array of resources and in proliferating formats is essential. In the Vocational Education context, students of vocational high school must develop not only fundamental computer skills but also proficiency in using a variety of technology tools to solve problems, make informed decisions, and generate new knowledge. The development of these skills, as in other basic areas of knowledge, is the responsibility of the schools and their instructional staff.

One of the most important factors to improving Vocational Education quality is teachers' ability to use the technology infrastructure once it is in place. A growing body of evidence suggests that the teacher plays a key role in determining not only how but how well technologies are used in classrooms, and thus the extent to which technologies improve student performance. Given the central importance of teachers in the application of technologies for teaching and learning, education policy makers must quickly turn their attention to teachers: their readiness and how best to prepare them to use the technology infrastructure policy makers have been working so hard to create. In this context, there are three basic questions: (1) What must teachers know and be able to do in order to effectively use technologies to improve learning?, (2) How can teachers gain the knowledge and skills they need?, and (3) What policy issues must be addressed in order for teachers to avail themselves of opportunities to gain the knowledge and skills they need to use technologies effectively?

The Teacher Technology Competencies are a set of technology standards that define proficiency in using computer technology in the classroom. The competencies consist of computer-related skills grouped into four general domains: (1) Basic Technology Operation, (2) Personal and Professional Use of Technology Tools, (3) Social, Ethical, and Human Issues, and (4) Application of Technology in Instruction.

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