ABSTRACT

Information technologies (IT) have been used to support a variety of functions in schools and education centers, including in the provision of access to instructional materials. IT facilities and services are now becoming widely available in Malaysian schools to assist special education teachers in many ways. However, the available literature suggests that most teacher preparation programs do not sufficiently equip teachers with IT skills. Such a situation makes it difficult for them to access essential resources and strategies necessary for students with unique learning disabilities. The research questions were: What are the main curriculum domains for information searching? What is the current level of computer and IT knowledge among special education practitioners? How do they use their current level of IT knowledge? What were the factors affecting the use of IT? To what extent were some IT-related competencies considered essential? A mixed-method approach which combined questionnaires, interviews and observations was employed for the study. A set of questionnaires was sent to 120 special education professionals in 15 special schools and education centers in the Klang Valley area of Malaysia. Structured interviews and systematic observations were also conducted to collect information on the current usage of IT facilities and services. The findings indicate the cognitive and communication domains were principal areas for information searching practices. However, most of the interview participants argued that social skills and communication skills were essential if the sole aim was to prepare a student for enrolment into a general education curriculum at a later stage. Professionals in supporting roles expressed a desire for a significant amount of IT-based resources for the communication domain ($p<0.05$). Generally, knowledge of the World Wide Web was statistically significant among female professionals, those in supporting roles, and Bachelor’s or Master’s degree holders ($p<0.05$). Current usage of IT-based resources indicated the World Wide Web
was currently at the top with significant differences for female professionals and professionals in supporting roles ($p<0.05$). Meanwhile professionals with Bachelor’s or Master’s degrees also reported current usage of the World Wide Web and online databases with significant differences. Good training programs (reported by 44.2%), possession of IT skills (50.0%) and encouragement by colleagues (45.2%) were the main facilitating factors for IT usage. On the other hand, poor IT knowledge and skills (45.2%), lack of IT facilities and lack of Internet connectivity were indicated among the barriers. The notable IT-related competencies for special education professionals were knowledge of basic computer technologies, skills in using Internet technology, systems maintenance, installing and testing of systems. The main contribution of this research is the finding of teachers’ remarkable desire to maintain IT systems and abilities to design and develop databases that could facilitate a reliable storage and retrieval system for individual student activities, assessments, referrals, medical conditions and appointments. The need for such IT skills and competencies could form the basis of the future design of special education teacher preparation programs. Future teacher training syllabi need to be reviewed to enable teacher graduates to efficiently integrate IT in the teaching of students with learning disabilities.