



Case Study

Institut Perguruan
Ilmu Khas
(Specialist Teacher
Training Institute)
Intel® Teach Program



“Integrating ICT into teaching methods is like wearing a new pair of leather shoes – it’s painful in the beginning but you get more comfortable as you get used to it.”

Nazifah Shaik Ismail
Science Lecturer,
Mathematics & Science
Department,
IPIK.

Special Education in Malaysia gets a boost with Intel® Teach Program

IPIK is aware of the shortcomings of normal teaching methods for students with special needs and has decided to use ICT to make lessons more interesting and accessible. The Intel Teach Program, introduced at the institute in 2000, has played a major role in the integration of ICT into teaching methods that are being taught to teachers of special education. In turn, it enhances the learning process of these children with different learning difficulties. For IPIK lecturers like Lim Siew Geck, who has embraced the program, the additional work involved in the implementation is well worth it as results have far exceeded expectations.

Challenges

- Disabled students and students with learning disabilities need learning aids and relevant teaching methods to cater to their special needs.
- Teachers of special education need teaching tools to engage students effectively in classroom learning.
- The lack of computer literacy among teachers needs to be addressed.

Approach

- Provide professional development to teachers to help them acquire computer and technology skills that will translate into more effective teaching in the classroom.
- Equip teachers with skills to employ technology to help engage special needs students in meaningful learning experiences.

Benefits

- Implementation of the Intel Teach Program has enhanced teachers’ technical and pedagogical skills, helping them to become better educators.
 - Students with special needs find lessons more interesting and are able to learn the skills they need.
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Course participants, Teach Essentials Online

To remain competitive in a world shaped by globalization, Malaysia needs a workforce that includes the country's disabled citizens, who can contribute to its economy. Currently, its vocational education system may not adequately equip this group of special needs people with the skills and knowledge essential to earn a decent standard of living. However, the education system is heading in the right direction with the initiative of Institut Perguruan Ilmu Khas (IPIK) that is providing the best possible education and learning experience to special students.

Lim Siew Geck, Head of Information Technology Unit, Educational Technology Department at IPIK, is aware of the various issues and problems that crop up in a class of special students. "Students with different disabilities are grouped together in one class, making it a great challenge for the teacher to conduct lessons," she says. "Teaching needs to cater to all their special needs, and the use of ICT integrated teaching aids and methods greatly contribute to effective teaching."

Adds Nazifah Shaik Ismail, Science Lecturer, Mathematics & Science Department: "Not all teachers, who are teaching special education and students with learning disabilities, are trained to cope with the students' special needs. So communication problems do arise, especially when there is no other person in the class to help the teacher in getting the message across."

It was this communication problem that prompted Siew Geck to bring the Intel Teach Program to IPIK and use its methods to narrow the gap between the special students and teachers. "The program is closely related to students' real life experiences and is extremely meaningful. And after its implementation, students showed great improvement in both critical and creative

thinking," she says. She was impressed by how ICT integration through the use of graphics and charts were especially effective for students with hearing impairment. "These methods were also able to hold the attention of students with learning disabilities (slow learners) who often have short attention spans."

In addition, IPIK also has trainee teachers who have disabilities themselves. "These trainees attend the same classes as 'normal' students, and sometimes they may feel insecure and inferior as the normal students often have an advantage in class," say Siew Geck. "When there's group work and assignments, students with similar capabilities tend to group together." She explains that this does not mean that disabled trainees are discriminated against. "It's just that trainees find it easier to communicate among their own kind," she says.

However, when project-based learning, in particular the Intel Teach Program, was implemented, normal and disadvantaged students were able to mix in a group, as the special abilities of the hearing/visually impaired students were needed for the execution of the projects. "This increased the self-esteem of the disable students," says Siew Geck. "They feel they are needed, recognized for their abilities and given a chance to excel. But more importantly, they feel they are finally a part of the class." What's special about the Intel Teach Program is that it eliminates the gap between these two groups of trainees.

Nazifah is also impressed by the changes the program brought to herself and other lecturers. "Before the program, teaching using technology was merely teaching with the aid of presentation software and animation. Students were just looking at the presentation and being mesmerized by the sounds and visuals," she says. "It's been a shift from teachers using technology



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Noorul Aini inti Abdul Rahman,
Director of IPIK.

Institut Perguruan Ilmu Khas (Specialist Teachers Training Institute)

IPIK was officially opened in 1960, and was the first institute to provide specialized training courses, including special education for children with special needs.

IPIK, which has the honor of being first in the world to conduct Teach Essentials Online for pre-service teachers, has reaped great benefits from the implementation of the program.

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to teach, to students using ICT to show us what they have learned. Now, we are mainly guiding. We are not overexcited about using presentation software to teach, but students are excited to show their products using ICT. It's more of a learning tool, instead of a teaching tool."

Aina Dayana Bt Hilmi, Ismadi Bin Ghazali and Darulsalam Bin Abdul Rahman are trainees who have undergone the Intel Teach Program and are now implementing what they have learned in their classes for children with special needs. "The challenge is teaching and controlling students with different difficulties and disabilities," explains Ismadi. "In one class alone, we have children who suffer from autism, Down syndrome, dyslexia, cerebral palsy and hyperactivity."

"Most of these kids have behavioral problems and short attention span, but with interactive teaching, communication and concentration levels have improved," says Aina, who adds that her pupils are now excited about what they are going to do in class. "They have fun, using the laptop and software such as MS PowerPoint*. It doesn't matter whether their answers are right or wrong, as long as they feel that they are involved in the learning process." The change in the children's behavior is so palpable that even their parents have noticed the difference.

A total paradigm shift

When the Intel Teach Program was first implemented in IPIK, hardly any lecturers wanted to participate in it. "Most of them had ICT phobia, thinking that Intel stood for ICT," says Siew Geck, who adds that the content quality of the program was unquestionable, but the fear of ICT was stopping lecturers from embracing the program.

"When lecturers were already good in teaching without the help of technology, telling them that ICT could make them better teachers would not convince them to learn something new," observes Nazifah. "They don't feel the need to incorporate ICT into teaching until they see the end product of this method."

"They eventually changed their minds after attending the program," says Siew Geck. Through word of mouth, more lecturers knew about the benefits of the Intel Teach Program and interest and demand for the course kept mounting. "Lecturers had fun learning during

the course, and they know that students would feel the same way too," says Nazifah.

Nazifah notes that teachers used to feel that students are much more well-versed in ICT compared to themselves and that they have nothing new to teach students about things concerning ICT. "After the program, teachers are now more confident in their ICT skills and understand that their role is just to facilitate learning," she says.

Feedback from teachers and trainees who have participated in the programs has been very encouraging. They were happy with the hands-on learning and teaching methods. Trainees with disabilities feel that the program puts them on par with other trainees. Improved intrapersonal and interpersonal skills also raised their self-esteem.

Intel Teach Program in Malaysia

IPIK has embraced the Intel Teach Program since 2000, when it was first launched in Malaysia. "The first two years were very challenging," recalls Siew Geck. The module was initially not very user friendly, but now it's more customized to the needs of teachers and students of Malaysia. "Initially, I too had my doubts whether the program will work, but after 3 years, lecturers had gained confidence in the program and now, it is a core course at IPIK."

With over 5 million teachers trained in more than 50 countries since 1999, Intel Teach is a worldwide program that helps teachers integrate technology effectively and seamlessly into their lessons. In Malaysia alone, more than 50,000 teachers have been trained and the program serves as a component of the national teacher-training programs. Intel also works with Ministry of Education, teacher training colleges and universities to integrate the Intel Teach curriculum into national pre-service and in-service teacher training.

IPIK, which has the honor of being first in the world to conduct Teach Essentials Online for pre-service teachers, has reaped great benefits from the implementation of the program. It has brought obvious enhancement to education—both teaching and learning processes—and equipped students with 21st century skills, including interpersonal and communication proficiencies. "Lecturers realized that through the integration of ICT, the teaching process has become livelier and more accessible," says Siew Geck, who is one of the 7 senior trainers in



"We're also very proud that IPIK had won first placing in competitions under the BPG-Intel Program in 2006 and 2008 (for lecturers) and 2007 (for students)."

Darawisah binti Sayuti,
Deputy Director of IPIK.



"Through the Intel Teach Program, special education students have shown that they are able to achieve excellent results, and that they are on par with 'normal' students."

Lim Siew Geck
Head of Information Technology Unit,
Technology Education Department,
IPIK.

Malaysia for Intel Teach. "Writing notes on whiteboards is becoming a thing of the past!"

As with any project, support from all levels and areas is crucial to the success of the program. According to Noorul Aini binti Abdul Rahman, Director of IPIK, IPIK will have 100 per cent network coverage (both wired and wireless Internet access) by November 2008. In terms of info-structure, the institute has just developed its own web portal as one of its approaches in promoting ICT awareness and to facilitate the program online. Darawisah binti Sayuti, Deputy Director of IPIK adds, "We provide infrastructure such as a fully equipped laboratory that has up-to-date hardware, computers and laptops. Personnel such as Siew Geck and her team, as well as other lecturers are given full management support to ensure that Intel Teach is a fruitful program in the institute," says Darawisah.

Noorul adds that the program builds 21st century skills such as digital literacy, critical thinking, problem solving and collaboration through quality teaching and learning. "It also develops the quest for knowledge and lifelong learning skills that are essential for continuous professional development that parallels the rapid advancement in global knowledge.

"We're also very proud that IPIK had won first placing in competitions under the BPG-Intel Program in 2006 (for lecturers) and 2007 (for students). This shows the commitment and hard work everybody has put in to make it a success," says Darawisah.

IPIK's plans for special education needs

Challenges ahead for IPIK in special education are tough, but not insurmountable. "To train all special education lecturers, we need the latest software equipment such as laptops that use Braille," explains Siew Geck. While the use of sign language for the hearing impaired means teachers need special software or technology to help translate that into coherent sentences that everybody else could understand, adds Nazifah.

"We hope IPIK will be the benchmark for other schools and institutions. We are working hard towards that goal," says Darawisah. Malaysia has 27 teaching institutions and IPIK aims to be an example which the other 26 institutions will aspire to. IPIK plans to involve all lecturers in the Intel Teach Program, which will take approximately 3 years, while to implement the program amongst all students will take an additional 2 years.

Noorul emphasizes: "IPIK aspires to produce teachers and teachers educators who are creative and innovative, competent in integrating ICT in teaching and teaching and learning activities, and comfortable in the use of ICT and global networking to access real time and up-to-date information." In other words, the program will lead to the production of future teachers who will fulfill the requirement of the Ministry of Education Malaysia.



Intel® Education Initiative

The Intel Education Initiative is Intel's sustained commitment to prepare all students, anywhere, with the skills required to thrive in the knowledge economy by improving teaching and learning through the effective use of technology and advancing math, science, and engineering education and research. Through a sustained public-private partnership with educators and governments in more than 50 countries, Intel works with international organizations and governments at an international, national and local level and invests approximately USD100 million per year in education programs adapted to address the needs of each country to advocate for 21st century educational excellence through policy work and awareness efforts.

- For more information, visit : www.intel.com/education
- For more information on the Intel Teach Program, please visit : www.intel.com/education/teach

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