



Case Study

IPG Kampus
Tuanku Bainun
(IPG KTB)

Intel® Teach Program



“ Intel Teach has taught lecturers, me included, to create opportunities for students to learn – and the students do learn. ”

Nik Ibrahim bin Nik Mat
Lecturer, Education
Technology Department
IPG KTB

Success with Intel® Teach Program through teamwork

With focus on innovation and the creation of a knowledge society, IPG Kampus Tuanku Bainun (IPG KTB) has embraced the Intel® Teach Program to assist the institution in using the power of information and communication technology (ICT) to produce world-class teachers. Nik Ibrahim together with his team of lecturers tasked with the mission of training those teachers have done an excellent job and the institution is now at the forefront of providing quality education to the nation's future generation.

Challenge

- Teachers' perception that teaching and learning is fine without the use of ICT has to be changed.
- Need for effective and innovative ICT integration into teaching and learning activities of all subjects.
- Infrastructure essential to the effective incorporation of ICT needs to be updated and upgraded from time to time.

Approach

- Educate and train teachers on how to successfully and seamlessly incorporate ICT into their lessons for more effective teaching in the classroom.
- Make effective strategies in Intel® Teach Program, especially project-based learning, an essential part of classroom activity.
- Allocate sufficient resources towards infrastructure for smooth ICT incorporation process

Benefits

- Implementation of the Intel® Teach Program has enabled teachers to wisely utilize ICT to enhance their teaching and pedagogical skills.
 - Improved and enhanced teaching methods will be the building blocks towards creating world-class educators for students nationwide.
-



Teamwork : The Key To Success

Malaysia needs to be progressive heading into the digital age to be on par with the rest of the world. The most effective way to achieve this is to start from the roots: the country's young generation. Hence, this responsibility rests on the shoulders of the country's educators, and IPG Kampus Tuanku Bainun (IPG KTB), being one of the leading teacher training institutions in Malaysia, aims to produce world-class teachers capable of imparting knowledge to future leaders.

Realizing that this could only be achieved by harnessing the strengths of ICT-enhanced teaching, the Department of Educational Technology has been tasked with the responsibility of encouraging the wide spread use of ICT in all subjects taught at the institute. Dedicated lecturers in the department work hand-in-hand to make this objective a reality.

Nik Ibrahim bin Nik Mat, lecturer, shares that the problem they face was not just how to use IT and software per se, but to harness its benefits and use it to help the education process. "Previously we had tried to approach the issue of ICT in education by breaking it down into parts such as understanding PowerPoint on its own. It didn't work. We realize that what we wanted was a way to integrate ICT into the teaching and learning process," he says. And serendipitously Intel Teach was just the solution they were looking for. "But we had to tweak it a little to suit our Malaysian context," he says, explaining that the focus is on how to integrate ICT into the existing curriculum for each subject.

Through the use of Project-Based Learning (PBL) concept, students were given the opportunity to be creative and collaborative. "We believe that with any given syllabus, the objective is to make learning fun and effective - a process that is enjoyed by everybody," stresses Nik Ibrahim. He illustrates the benefits of PBL by pointing out that the conversion from lesson plan to unit plan has tremendously reduced the amount of time needed for lesson planning while more can be achieved through the same number of lessons. "There are 40 to 50 lessons in a year. Just imagine the time we

save if we only have to plan 5 projects for the whole year.

Also, the nature of PBL is as such that students have to learn and make use of ICT, communication and thinking skills. Dr. Tan Soon Yin, lecturer at IPG KTB in the Department of Educational Technology, adds that Intel Teach also enables students to think more globally across subjects. For instance, teaching science is not just limited to science-related topics but also utilizes English as well. "I think that through PBL with emphasis on unit plan, students learn many other skills apart from the specific subject matter," she says. "Especially during group activities, these ancillary skills are needed and they improve themselves through the process." Zabedah bt A. Aziz, also a lecturer at the Department of Educational Technology, puts this succinctly: "With PBL, students learn from the process and not just by focusing on the end results. In other words, the journey matters more than the destination."

Integrating ICT into lessons has also become second nature for the lecturers. Even students are used to this format of teaching and learning, which has become an every day routine. "ICT tools have become such an integral part of their learning culture that when there's a project or activity, they would automatically utilize programs such as PowerPoint* and Microsoft Word* to complete and present their work," explains Dr. Tan.

However, this was hardly the case as recent as 3 years ago. "At that time, even emailing wasn't very common," says Zabedah. "Now, it's an essential tool in communicating and sharing of information." Lecturers' work has also become easier and more effective with the use of ICT. "Even though we may not be on par with developed nations in this aspect, we are definitely heading towards the right direction," says Dr. Tan.

One of the ingenious ways devised to encourage



"My role is to support and inspire them, and to give them the green light to go ahead with their plans. If my lecturers want to do it, I will support them 100 per cent."

Hjh Rohani bt Ismail
Director
IPG KTB



students to make use of the Internet is having online quizzes. Students are able to test themselves anytime and anywhere – they don't need a teacher in class for assessment. For a start, the quizzes are informal but there are plans to make them a part of the students' formal assessment. "We've got very positive and encouraging feedback from the students about the quizzes," says Dr. Tan, "and we hope that when the students complete their courses, they will be inspired to use similar tools when they are teaching at their schools to encourage the use of web facilities."

Tasting the fruits of their labor

The result of the lecturers and students' hard work was recently showcased at IPG KTB's inaugural tech education exhibition held on 14 & 15 October 2009. The exhibition, themed Knowing Technology in Teaching & Learning, had students in groups according to their different disciplines present their projects to both their lecturers and fellow students. The creative projects on exhibition showed the students' innovative ideas and execution of methods to come up with models and programs to teach their respective subjects in the classroom – making use of the advantages ICT can offer.

The exhibition was the first of many to come that aim to put into practice what students have learned about ICT in education. "We are pleasantly surprised by the quality of the exhibition as the students only had 15 weeks to produce it," says Azizan bin Ariffin, Head of the Educational Technology Department. Through regular projects like these, students can apply what they learn in the classroom to the real world, says Hj Daud bin Md Saman, Deputy Director of IPG KTB. "Seminars, carnivals and exhibitions are marvelous opportunities for students to be creative," explains Nik Ibrahim. "To ensure the success of such projects require the hands-on effort of all those who are involved and the things they learn in the process of making it all work is priceless."

One of the groups who presented its project at the exhibition was from 4 PISMP Muzik. The group's presentation revolved around making music education easier and more interesting. "In a music class, being able to hear a piece of music as it's being taught greatly facilitates students' learning. However, not all teachers are formally trained in music, thus they are unable to demonstrate how a song sounds like when they are presented with the notation," says Kellwin Kong, one of the group members. The group came up with the idea of using software to read the notation of a music piece, convert it into sound and play it out. "This makes

the class more interesting and piques the students' interest," he adds. Teachers and students can even compose their own songs and then use the software to play it.

Even teaching the most basic topics would benefit from the help of ICT, says Chuah Xue Li, another group member. "If we're introducing the different musical instruments to students, we can combine visuals, audio and description in words for a more arresting presentation," she explains. "ICT is just a tool. What's important is how teachers can use it creatively to enhance lessons and keep the students' interest. The result would be more enjoyable and effective lessons."

Kellwin also provides another example of how teaching and learning music can be enhanced through ICT: "Students can learn from a musician who's not physically on campus through the use of video technology. They still get to see and experience his musical skills. This would be particularly useful in the case of running an online learning course."

Intel® Teach Program in Malaysia

The year 2000 was when the Intel® Teach Program was introduced to IPG KTB. "What we've achieved today is the result of hard work and teamwork by the management, lecturers and students," says Hj Ahmad Basri bin Hashim, Infostructure Manager at IPGM KTB, who adds that having the support of top management and excellent ICT infrastructure go a long way towards realizing IPG KTB's goals.

While some lecturers have embraced the program right from the start, some have questioned the need for ICT in their teaching approach – why do they need this after years of successful teaching without it? With the effort from ICT literate lecturers, they managed to slowly change the mindset of those who were not in favor of it earlier. "Now, ICT has become a way of life at IPG KTB, so much so that if the Internet connection is disrupted or projectors malfunction, there would be numerous complaints about how things can't be done and how that has made life more difficult for everybody!" says Nik Ibrahim.

Nik Ibrahim credits the informal and nurturing environment at the institute for the success they have achieved. "It's like a family here. Everybody works towards a common objective and like a democratic society, everybody's opinion will be taken into consideration," he says fondly. Ideas and

IPG Kampus Tuanku Bainun, Malaysia

IPG KTB was established in 1994 with the objective of running the Teacher Training Program as stipulated by the Education Ministry of Malaysia. The institute's main mission is to use the latest pedagogy technology to create and guide the new breed of the nation's teachers.

For more information, log on to <http://iptb.edu.my>



brainstorming sessions are held anywhere, anytime and often important decisions are made and fabulous ideas born in the midst of a meal together. "That's the way we work - approachable and supportive," he explains. "We learn from each other and there are no egos involved."

The infrastructure needs of the institution are also fulfilled. Currently, there are 6 servers to support the needs of the institute. Although laptops are not given to all lecturers, this hasn't impeded the exponential growth in laptop usage. "Most lecturers have invested in their own equipment once they've experienced the convenience and effectiveness of teaching with ICT," says Nik Ibrahim.

More than 60,000 teachers have been trained since the program was introduced in Malaysia in year 2000. By working with the Ministry of Education, teacher training institutions and university teacher training faculties, the Intel® Teach Program has been accepted into pre-service and in-service teacher training to help teachers engage students through lessons enhanced with ICT and innovative pedagogy for better results.

Working towards bigger dreams for IPG KTB

The implementation of the Bestari program, which trains teachers for Smart schools nationwide, shows the country is going in the direction of e-management and Hjh Rohani bt Ismail, Director of IPG KTB notes that Intel Teach is contributing to the culture of e-learning by increasing the usage of ICT in teaching and learning. "Our key personnel involved are very creative and I trust and believe that they will give their very best to make it a reality," says Rohani.

IPG KTB is always looking for ways to constantly improve its teaching methods and it is hoped that with widespread use of ICT and PBL, the institute will be looked upon as a 'knowledge library' by other institutes in the Northern region. Nik Ibrahim also has plans to expand the use of CCTV from mere security purposes to a learning tool as well. "We will install CCTV in every lab and lecturers can be offsite, yet still able to monitor the progress of students with it," he said.

With all these plans in the pipeline, IPG KTB is well on track to be a global player in terms of activities and product of the institute, i.e. to produce world-class educators.

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 21 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

This document is for informational purposes only.
INTEL MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS DOCUMENT.

Programs of the Intel® Education Initiative are funded by the Intel Foundation and Intel Corporation.

Copyright © 2010, Intel Corporation. All rights reserved. Intel, the Intel logo, Intel Education Initiative, and Intel Teach Program are trademarks of Intel Corporation in the U.S. and the other countries.

* Other names and brands are the property of their respective owners.

0110/HH/ACE/XX/PDF 323291-001EN

