

## ABSTRACT

Along with the rapid advancement in information technology (IT), the global network known as the Internet had become prominent in recent years. Besides its influence in the commercial and industrial circle, the Internet had also aroused the interest of educators. Many educational researchers had discovered that the Internet can be useful in the teaching and learning process. In Malaysia, Internet-related projects such as the Jaringan Pendidikan (JP, Education Network) and Pusat Sumber Elektronik (PSE, Electronic Resource Center) pilot projects had been introduced in schools to try out the idea of incorporating the Internet in the education process. Implementation of IT incorporation in education need to be supported by effective in-service training programs. Therefore, as the Malaysian government makes its initial move to introduce the Internet into the schools, training for teachers should be among the top agenda.

Due to the highly centralised system, current in-service training practices for Malaysian teachers provides training opportunities for only a selected number of teachers. In order to fulfill the Internet training needs of more teachers, an Internet training package for teachers was developed in this study. The training package was developed by adopting the school-based approach, where the package was developed so that its training sessions can be conducted in the setting of an average school. In this way, more teachers can be trained to use the Internet. The rationale is that if all teachers are exposed to the technology, they will be able to contribute more positively to Internet acculturation in schools.

In this study, the training package called the Basic Internet for Teachers (BasIT) training package, or Asas Internet untuk Guru in Bahasa Malaysia, was

developed and evaluated through three instructional development (ID) stages – needs assessment, design and development, and formative evaluation. In the needs assessment stage, the training needs and learner characteristics of the teachers, as well as the resources and constraints of the schools related to Internet training were identified through mail survey. A survey instrument was sent – by post or electronically – to 50 JP teachers and 14 PSE teachers to gather information. Sixty-one responded to the survey.

Based on the information gathered in the needs assessment stage, training materials for the package were designed and developed. The process involved task analysis, definition of instructional objectives, selection of media and instructional activities, and the production of training materials. The end product of the design and development stage was a set of draft materials which include the training module, visual aids, and the assessment instrument for participants.

In the formative evaluation stage, the draft materials were first reviewed by two experts. After being revised based on the advice of the experts, the materials were tested on two small groups of teachers in Sekolah Menengah (P) Sri Aman (SMSA, Sri Aman Secondary School), Petaling Jaya. The first Small Group Trial involved five teachers and the second involved 12. After each Small Group Trial, the materials were revised accordingly. The training package was re-evaluated and revised after the Small Group Trials and the first version of the BasIT training package was prepared. The first version of the package consists of the following components:

- Modul Kursus (Course Module) – the training module
- Pengenalan Kepada Asas Internet untuk Guru (Introduction to the Basic Internet for Teachers) – introduction pamphlet for the training package

- Panduan Fasilitator (Facilitator's Guide) – the instructor's manual
- Borang Penilaian Kendiri (Self-Assessment Form) – the participants assess their own progress using these forms
- Sijil Pencapaian (Certificate of Achievement) – certificate-format performance report for participants
- Overhead transparencies
- Floppy diskette – contained supplementary software for the training course.

## **ABSTRAK**

### **PENGEMBANGAN DAN PENILAIAN**

### **SATU PAKEJ KURSUS INTERNET UNTUK GURU-GURU**

Sejajar dengan perkembangan yang pesat dalam teknologi maklumat, rangkaian komputer global yang dikenali sebagai Internet menjadi semakin penting pada kebelakangan ini. Di samping pengaruhnya dalam dunia perdagangan dan perindustrian, Internet juga menarik minat para pendidik. Ramai penyelidik dalam bidang pendidikan telah menyedari bahawa Internet boleh memberi manfaat dalam proses pengajaran dan pembelajaran. Di Malaysia, projek-projek yang berkaitan dengan Internet seperti Jaringan Pendidikan (JP) dan Pusat Sumber Elektronik (PSE) telah diperkenalkan di sekolah untuk mengkaji kemungkinan mengintegrasikan Internet dalam proses pendidikan. Program latihan dalam perkhidmatan yang berkesan diperlukan untuk melaksanakan projek-projek pengintegrasian IT sedemikian. Oleh itu, latihan untuk guru haruslah dijadikan salah satu daripada agenda utama semasa kerajaan Malaysia memulakan usaha untuk memperkenalkan Internet di sekolah pada ketika ini.

Di bawah sistem berpusat, amalan latihan dalam perkhidmatan untuk guru-guru di Malaysia pada masa kini hanya memberikan peluang latihan kepada segolongan kecil guru yang terpilih sahaja. Untuk memenuhi keperluan latihan Internet bagi lebih ramai guru, satu pakej kursus Internet telah disediakan dalam kajian ini. Pakej kursus ini telah dikembangkan menurut pendekatan berasaskan sekolah, di mana pakej ini telah dikembangkan agar sesi-sesi kursusnya dapat diadakan dalam keadaan sekolah. Dengan cara ini, lebih ramai guru akan dapat dilatih

untuk menggunakan Internet. Rasional kajian ini adalah bahawa guru-guru akan dapat memberi sumbangan yang lebih berkesan untuk menjayakan pengintegrasian Internet jika mereka telah didedahkan kepada teknologi yang berkenaan.

Dalam kajian ini, pakej kursus yang dinamakan Asas Internet untuk Guru telah dikembangkan dan dinilai melalui tiga peringkat pengembangan pengajaran (*instructional development*) – analisis keperluan, reka bentuk dan pengembangan, dan penilaian formatif. Pada peringkat analisis keperluan, keperluan kursus guru-guru dan ciri-ciri mereka sebagai pelajar, serta bahan sumber dankekangan sekolah berhubung dengan kursus Internet dikesan dengan kaji selidik (*survey*) melalui pos. Satu instrumen kaji selidik dihantar – melalui pos atau secara elektronik – kepada 50 orang guru JP dan 14 orang guru PSE untuk mendapatkan maklumat. Enam puluh satu orang guru memberi balasan.

Berdasarkan maklumat yang dikumpul dalam peringkan analisis keperluan, bahan-bahan kursus pakej ini telah direka bentuk dan dikembangkan. Proses yang terlibat termasuk analisis tugas (*task analysis*), takrifan objektif pengajaran, pemilihan media dan aktiviti kursus, dan penyediaan bahan kursus. Produk akhir pada peringkat reka bentuk dan pengembangan adalah satu set draf bahan kursus yang termasuk modul kursus, bahan bantu-pandang (*visual-aids*), dan instrumen penilaian peserta.

Pada peringkat penilaian formatif, draf bahan kursus disemak oleh dua orang pakar terlebih dahulu. Setelah diubahsuai berdasarkan nasihat pakar, bahan-bahan kursus digunakan untuk menjalankan kursus percubaan bagi dua kumpulan guru di Sekolah Menengah (P) Sri Aman, Petaling Jaya. Kumpulan yang pertama melibatkan lima orang guru dan yang kedua pula 13. Bahan-bahan kursus diperbaiki selepas setiap kursus percubaan. Selepas kedua-dua kursus percubaan, pakej kursus dinilai

semula dan diperbaiki lagi untuk menghasilkan versi pertama pakej kursus Asas Internet untuk Guru, yang terdiri daripada komponen-komponen berikut:

- Modul Kursus
- Pengenalan Kepada Asas Internet untuk Guru – risalah pengenalan kepada pakej kursus
- Panduan Fasilitator – buku panduan untuk fasilitator kursus
- Borang Penilaian Kendiri – instrumen penilaian kamajuan peserta
- Sijil Pencapaian – laporan pencapaian peserta yang berupa sijil
- Transparensi Overhead
- Cakera liut – mengandungi perisian tambahan yang diperlukan untuk kursus.

**Dedicated to**

The one I love and cherish, my heart and soul –

Madam Yong Su Yee

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