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Discussion Group 5 - Information Technology in institutional administration and management

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1 INTRODUCTION

The discussion group consisted of representatives from several educational institutions. The group looked at Information Technology in Educational Management (ITEM) in the three countries represented. Moreover, the group discussed which measures could be taken to promote the use of ITEM in Zimbabwe.

2 The CASE OF ZIMBABWE

In Zimbabwe, at the Polytechnic, the need was expressed for a better control on some aspects of its operation. Accounts, hostel room allocation, the amenities fund and examinations have been computerised. Some departments use computers for administrative purposes. The systems have been developed in-house. There is a need to expand and integrate the ITEM. Areas that could be incorporated are: asset control, vocational training loans, examination registration, payments and results, library, expenditure, staffing, timetables and student reports.

The local university is using a system developed internally for administrative purposes.

In the state secondary schools there is very little, if any, ITEM being used. Some of the private schools are using ITEM for accounts. For instance, Speciss College has been using a system called Integrated Tertiary Software (ITS) for two years for the purpose of registrations, fees, statements and class registers. Use in other areas is still to be implemented.

Capacity Building for IT in Education in Developing Countries
G. Marshall & M. Ruohonen (Eds.)

The Discussion Group was informed that the national Zimbabwean EMIS - Educational Management Information System - was out to tender for a countrywide, comprehensive integrated system. The system is for the computerised support of administration of the two ministries involved - Education and Culture, and Higher Education.

3 THE CASE OF HONG KONG

In Hong Kong there are seven autonomous universities, each developing and using its own system, which tends to be task- orientated. There are moves by individual universities to develop an integrated MIS campus-wide. Initially, schools developed their own systems. Since 1993 the SAMS project has been introduced and 1200 schools will be integrated in one system territory-wide for management purposes. The project is due for completion in 1998. Of these schools 800 are primary schools where the computing experience is very low. This centralised system is trying to balance core needs against flexibility for specific or special requirements.

4 THE CASE OF THE NETHERLANDS

Most primary and secondary schools in The Netherlands use some form of computerised system. There are about three systems being used in secondary education. Two of them have been developed by private companies, one resulting from a governmental initiative. Schools can decide for themselves which of these systems they will use since the government cannot prescribe any one system. The available systems support various kinds of administrative activities (*e.g.*, student, personnel, finance) and also assist school managers in planning and evaluating work.

5 ISSUES FOR ZIMBABWE

With regard to Zimbabwe the following issues were highlighted:

1. there is a need for a national policy to lead Zimbabwe into the 21st century; an integrated approach is vital to use the lessons learnt elsewhere and, if deemed necessary, to use outside expertise;
2. the framework should be communicated to the stakeholders - school people, the policy makers (government) and the business sector (suppliers of hardware and software);
3. any amount of funding will not solve the problem, a well thought-out plan is required;
4. the systems should be easy to use for staff at all levels;

Crucial elements of a national strategy for the implementation of ITEM in developing countries using the above scheme are:

- the carefully analyse of the educational institutions concerning their information demands and information flows;

- the definition of the SIS framework, including all the required capabilities that can be obtained from the SIS;
- the step-by-step participative design and development of prototypes for the modules in the SIS framework in iterative design-test-redesign cycles until the modules support users widely in valuable and user-friendly ways, and system designers and users are happy with them;
- the attention paid to the planning and managing of the innovation process (*e.g.*, clear goals and feasible planning);
- the allocation of sufficient resources to the innovation and dispersal of expertise amongst staff;
- the stimulation of users by letting them experience the potential of SISs;
- the preparation and training of users for system use at clerical and managerial level;
- the assurance of the probability of user success during the first innovative activities as high as possible;
- the support of users during the introduction of the SIS (*e.g.,* answer questions, solve problems) and the development of support material users can refer to if problems occur.

6 INSTITUTIONAL PRACTICES

As there is no definitive national policy, institutions could implement their own systems commencing with some administrative work. The options are:

- a do-it-yourself approach of writing programs but this is not cost-effective in the long term; it may be very good staff development and fun learning but not worth pursuing;
- an institution with one PC, using a spreadsheet (*e.g. Excel*) may be able to give some of the statistical information required and this could be easily implemented on a personal level;
- an institution with one PC could use a spreadsheet and a database, (*e.g.*, *Excel* and *Access*) although some assistance will be required to set up the database as the information requirement will determine the structure;
- off-the-shelf packages from a similar school system (*e.g.*, the British SIMS/Dolphin) could be evaluated and implemented.

As in the case of implementing ITEM at a national level, schools working on ITEM should motivate staff, disperse expertise among staff members, pay attention to the innovation process and start with small projects with a high probability of success.

7 ACTION PLAN

As an Action Plan for Zimbabwe and other developing countries, the following are recommended:

1. professional bodies (*e.g.*, the heads of High School Associations) should become interested in ITEM;
2. seminars should be organized by and for the principals on how to use ITEM in the management of their institutions;
3. institution principals could manage upwards and influence the direction of ITEM by getting themselves involved in ITEM issues;
4. principals could start implementing some common systems;
5. principals could also obtain advice/support from IFIP, the Zimbabwe Computer Society and the ministries.