

Core Skills Provision in Higher Education

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Concerns about poor level of skills in the workforce and perceptions of a mismatch between the actual competencies of young graduates and those required by employers is an issue that has been widely discussed in the Malaysian media. A study on graduates' unemployment conducted by the National Higher Education Research Institute (2003) highlights employers' dissatisfaction with the level of the graduates' abilities with regards to communication skills, interpersonal skills, problem solving skills and their initiative and proactive skills. In another recent study by the same institute (2005) it went on to highlight a need for the development of more relevant core skills in the undergraduate programme. Employers ranked the following as important skills that must be integrated in the university curriculum: industrial training/exposure to work environment; communication skills, personal qualities, interpersonal skills, thinking skills, ICT skills and management skills (time and people management). However, both the studies did not outline how this can be done.

Purpose of Study

There has been an increasing pressure on higher education to promote the development of core, transferable and employability skills into the heart of undergraduate learning experience. The purpose of this study is to identify the development of core and generic skills provisions in courses offered in two Malaysian universities. Seven set of core skills identified are: subject content competency, communication skills, numeracy, ICT skill, learning how to learn skill, working with others, and problem solving skill. The overlapping of these skills as 'core' or 'generic' is unavoidable given the complex nature of their relationship and dependence upon the nature of the discipline. The content and process of 16 courses are analysed based on a model of course provision developed by Dunne et al. (2000).

Sample

The sample reported in this study is part of a larger sample which involved four universities. In the present study, the courses were selected from two universities and they represent a mix of professional and non-professional disciplines. The courses selected are foundation courses offered at each department. It is assumed that these foundation courses would best describe the knowledge discipline in terms of content and core skills required for the profession or job prospects of graduates. The professional discipline is

represented by education courses (teacher preparation) and the non-professional discipline is represented by courses from the Biology departments and the Human Resource departments. Data on course provision, including statement of purpose, course objectives, content, delivery modes and assessment structure were acquired through the course syllabus. The syllabus were analysed and supporting data were acquired through interviews with the lecturers and students.

Core and Generic Skills: A Definition

The conceptualisation of core skills in higher education has seen a number of definitions and interpretations (Bennett et al., 2000; Tribe, 1996; Drummond et al., 1997; Assiter, 1995). Much of the confusion is semantic in nature with the term 'core' being used interchangeably and with other terms including personal, transferable, key, and generic. Similarly, these skills are also referred to as competencies, attributes, capabilities, elements and learning outcomes. For the purpose of this paper, the term 'core skills' consists of both discipline-based skills and generic skills; and refers to those skills necessary for an individual to develop their fullest potential in an area of study, context or workplace. The term 'generic skills' refers to the skills which can 'support study in any discipline, and which can potentially be transferred to a range of contexts, in higher education or in the workplace' (Dunne et al., 2000).

A Framework of Analysis of Core Skills

A synthesis of generic skills by Dunne et al. (2000) provides a basis for the development of a framework of analysis of core skills in this study. In this view, core skills are the specific behaviours that an individual uses to perform successfully on a particular task and reflect the vocabulary of teaching objectives or learning outcomes that lecturers might use in their courses. Skills are behaviours that must be taught, learned, and performed whereas competence represents judgements or evaluations of behaviours within and across situations. Six categories: communication skill, numeracy, ICT skill, learning how to learn skill, working with others, and problem solving skill are generic in nature. They can potentially be applied to any subject specific areas of study and to any course in higher education and to the workplace.

A model developed by Dunne et al. (2000) provides a meaningful basis to analyse the relationship of core skills. The model distinguishes five elements of course provision in higher education: disciplinary content

knowledge, disciplinary skills, workplace awareness, workplace experience and generic skills, as shown in Figure 1. As pointed out by Dunne et al. (2000), there is enormous variation across disciplines about what are considered the necessary core skills, and, as a consequence, in the generic skills planned for. In some disciplines, generic skills may be seen as disciplinary skills, such as the teaching of presentation and communication skills in the department of language studies and education. In other departments, the same

skills may be considered generic and may be taught separately. Thus, the same skills can be taught either as specific discipline-related, or as more flexible generic skills. As shown in Figure 2, the generic skills element overlaps into the other four elements, illustrating the extent of their relationships. The elements 'workplace awareness' and 'workplace experience' represent efforts within university courses to provide learning settings to enable the application of theoretical knowledge to approximate the activities of the workplace.

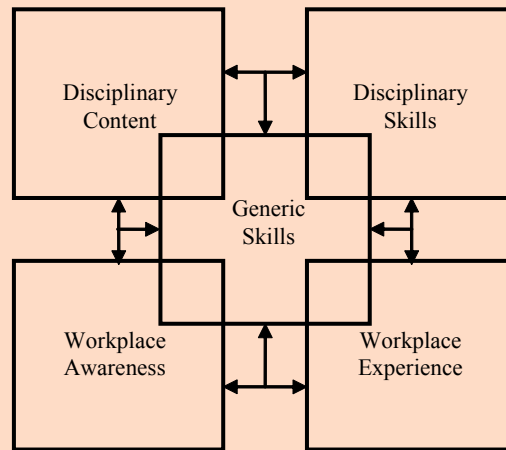


Figure 1: A model of course provision
Source: Dunne et al. (2000)

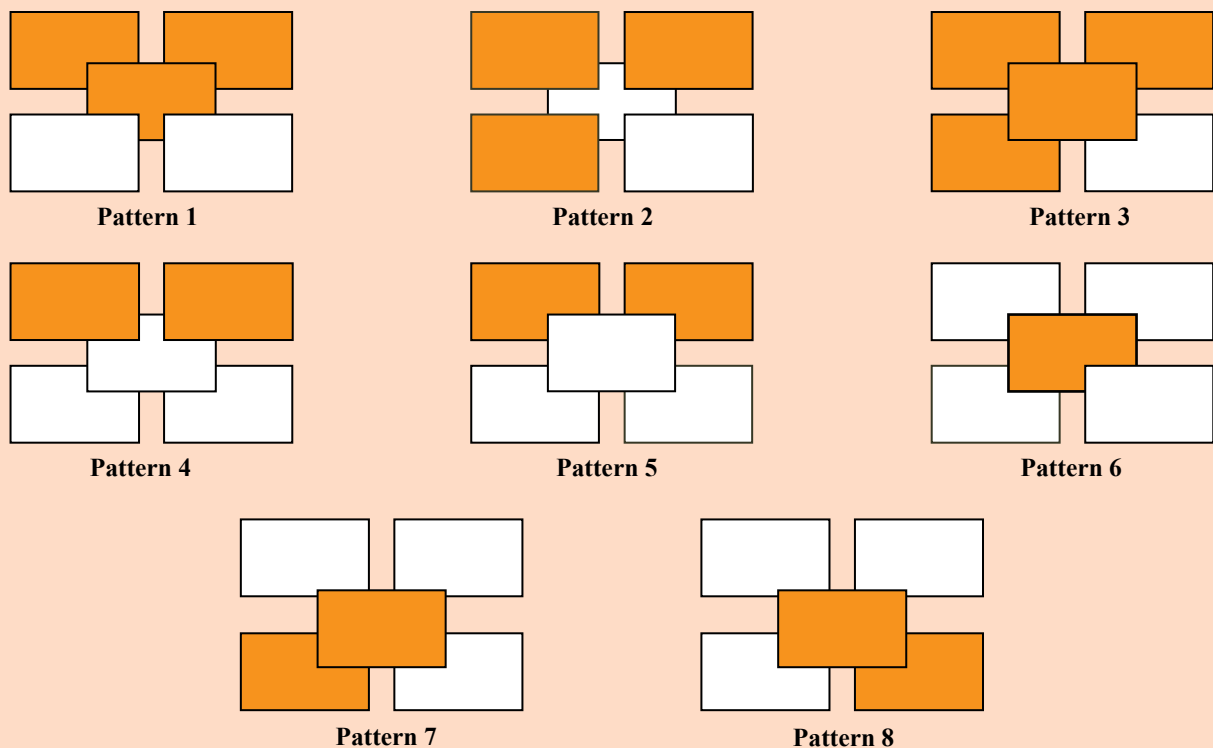


Figure 2: Patterns of provision of core skills

Patterns of Core Skills Provision

All the course syllabus analysed can be described in terms of the five elements of the model, but each fits the model in a different way, according to teaching objectives and the processes and contexts used for learning. The fit of each module can be described, or mapped, as a series of patterns which can then be compared to identify the different approaches to developing core skills within the curriculum. Figure 2 illustrates eight patterns of provision that have been identified in the data.

Pattern 1

Planned Learning Outcomes:

Major: □ Disciplinary content, Disciplinary skills, Generic skills

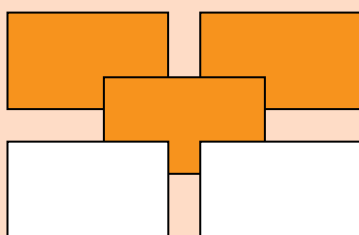


Figure 2.1

Pattern 1 (Figure 2.1) shows that disciplinary and generic skills are of equal importance; generic skills are the means by which learning of the disciplinary skills and knowledge is acquired. An example of this course is 'Technocrat and Development' which focuses on the process of development and the role and obligations of technocrats in nation building. Substantive and syntactic knowledge of the discipline which focus on political, economic and globalisation topics are developed through the use of generic skills which are made explicit in the course syllabus and students are evaluated through presentations of their assignments. It also emphasises the ethics of technocrats in development which reflects the importance of the six generic skills in this model.

Pattern 2

Planned Learning Outcomes:

Major: Disciplinary content, Disciplinary skills, Workplace awareness

Minor: Generic skills

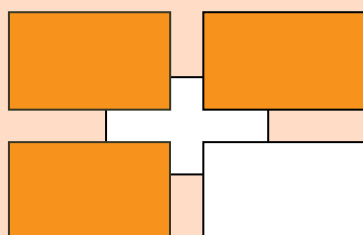


Figure 2.2

The focus of Pattern 2 is on substantive knowledge and its application at the work environment. Application to the workplace is through case studies and simulations as part of classroom activity and students are evaluated. The three main elements of disciplinary content, skills and workplace awareness provide the means for the acquisition of generic skills. An example of this pattern is a course in 'Cross cultural Management'. Communication skills and group work assignment are emphasised as part of the learning and understanding of cross cultural concepts, leadership, conflict resolution, human resource management and decision making.

Pattern 3

Planned Learning Outcomes:

Major: Disciplinary content, Disciplinary skills, Workplace awareness, Generic skills

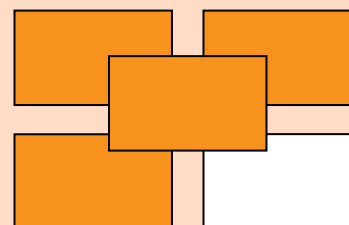


Figure 2.3

Skills provision in Pattern 3 emphasises four basic elements of the model - disciplinary content, disciplinary skills, generic skills and workplace awareness. An example of such a course is, 'Organisation of Sports'. As described in the student handbook, it makes clear the links between disciplinary skills, disciplinary content knowledge, and at the same time emphasising generic skills in the processes of learning and in the workplace. The course synopsis states:

This course focuses on the supervisory and organisational skills involved in physical education classes, co-curricular activities in schools and sports club. It provides information in the organisation of various games and sports activities. Through these activities, students will acquire a sound concept on fitness; cultivate attitudes of social responsibility and acquire cooperative skills through group interaction. The course will also provide opportunities for the application of ethical principles and creative self-expression. This course serves as a vocational laboratory for those who may become teachers of physical education, athletic administrators or leaders of youth sports in the community.

Although conventional in terms of content, the variety of processes in which students are involved, the expectations for application of a range of skills, the demand for active participation in organising sports activities and group functioning, and the monitoring

and assessment of generic skills all reinforce the centrality of skill development. Organising sports and recreational activities is dependent on teams of students functioning well together, and the importance of this is emphasised throughout the course.

Pattern 4

Planned Learning Outcomes:
 Major: Disciplinary content, Disciplinary skills
 Minor: Generic skills

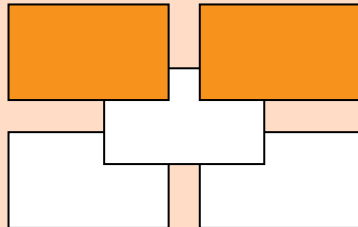


Figure 2.4

Pattern 4 emphasises the distinctive substantive and syntactic knowledge of the discipline. The acquisition of generic skills is not a main focus but a by-product of the process of acquiring disciplinary content and skills. An example of such pattern is seen in the course ‘Food Microbiology’ where the focus lies in the basic principles of food microbiology and issues in the procedures and techniques of controlling microbial contamination of food. Generic skills such as communication skills, group work, internet and library search skills, are included ‘...to give students practice in problem solving, in researching topics in food microbiology, and in communicating your knowledge clearly and effectively.’

Pattern 5

Planned Learning Outcomes:
 Major: Disciplinary content, Disciplinary skills

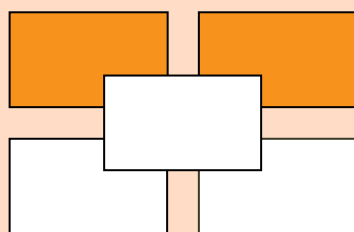


Figure 2.5

The focus of Pattern 5 is exclusively on syntactic and substantive knowledge. An example of such pattern is seen in a course in industrial mathematics ‘Sampling and Quality Control’ where generic skills are not seen as instrumental in enhancing the learning and understanding of statistical concepts, principles and procedures. Students are assessed on individual capacity to solve statistical problems and to do assignments.

Other courses in this department seem to have similar patterns with no emphasis on generic skills.

Pattern 6

Planned Learning Outcomes:
 Major: Generic skills □□
 Minor: Disciplinary content, Disciplinary skills, Workplace awareness

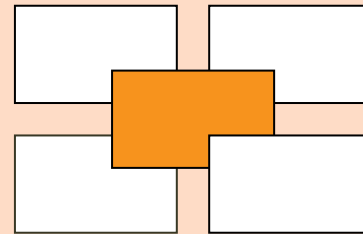


Figure 2.6

Pattern 6 emphasises the role of generic skills in preparation for the profession, an example of which can be seen in any teacher education programme. An integral part of teacher preparation is a set of transferable skills which includes communication skills, presenting skills, questioning techniques, group dynamics and interaction. These are seen as generic for all subject specific courses demonstrating that such skills are to be valued and important as they form the foundations of becoming an effective teacher. A course in ‘Curriculum and Pedagogy’ illustrates the integration of theory into practice, where students are taught to do lesson plans and implement them through micro teaching sessions. Through these sessions, skills are made explicit and assessed, and practice is provided through video recording.

Pattern 7

Planned Learning Outcomes:
 Major: Generic skills, Workplace awareness □□
 Minor: Disciplinary content, Disciplinary skills, Workplace experience

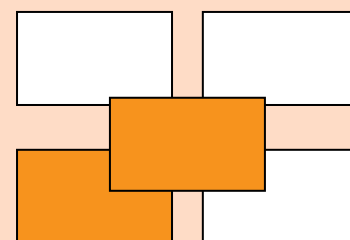


Figure 2.7

An example of Pattern 7 can be seen in a B. Ed. programme in a course titled ‘Pre Practicum’ where students are placed in schools to observe

the teaching and learning environment. Students are expected to work closely with a cooperating teacher and to use the relevant generic skills such as communication skills, working with others and learning how to learn skills and to prepare a report on their experiences and observations.

acquired in theory, to acquire new skills and knowledge in the workplace, the taking of responsibility and the development and use of generic skills, especially communication, problem-solving, management of self and task at the workplace.

Conclusion

Content analysis of course structures suggests that core skills are being taught with rigour with emphasis on certain elements as provided in the model. The patterns indicate that this is done in many different ways, whether within the context of the discipline or the workplace, and with different emphases. As such, they provide models of practice for lecturers wishing to incorporate specific core (i.e. those that are transferable and generic) skills within their courses.

Eight patterns were identified based on the data. Pattern 4 and 5 are the most common where the emphases on core skills are disciplinary knowledge and skills, with little or no emphasis on generic, personal and transferable skills. The model of course provision (Dunne et al., 2000) could be used as vehicles for developing generic and transferable skills at the workplace. This study not only provides validation for the model, it also presents opportunities for further development in the Malaysian setting and use as a curriculum planning tool to transform purposes into practice.

References

- Assiter, A. (1995). *Transferable skills in higher education*. London: Kogan Page.
- Bennett, N., Dunne, E. and Carré, C. (2000). *Skills development in higher education and employment*. Buckingham: Open University Press/SRHE.
- Dunne, E., Bennett, N., & Carré, C. (2000). Skills development in higher education and employment, in Coffield, F. (Ed.) *Differing visions of a learning society*. Bristol: Policy Press.
- Drummond, I., Nixon, I. and Wiltshier, J. (1997). *Transferable skills in higher education: The problems of implementing good practice*. Draft project paper, Universities of Hull and Newcastle.
- National Higher Education Research Institute. (IPPTN). (2003). *Laporan kajian masalah pengangguran di kalangan siswazah IPTA*. Pulau Pinang: Universiti Sains Malaysia.
- National Higher Education Research Institute. (IPPTN). (2005). *University curriculum: An evaluation on preparing graduates for employment*. Pulau Pinang: Universiti Sains Malaysia.
- Tribe, J. (1996). Core skills: A critical examination. *Educational Review*, 48, 13-27.

... the term 'core skills' consists of both discipline-based skills and generic skills; and refers to those skills necessary for an individual to develop their fullest potential in an area of study, context or workplace.

Pattern 8

Planned Learning Outcomes:

Major: □ Generic skills, Workplace experience □

Minor: □ Disciplinary content, Disciplinary skills, Workplace awareness

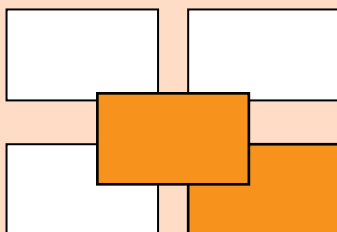


Figure 2.8

Pattern 8 emphasises the importance of work placement as part of the preparation for the profession. Generic skills represent the means by which disciplinary content and skills are applied. Students are expected to do their practicum or industrial training for a period of 8-12 weeks. They are required to apply knowledge and skills