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Students' understanding of generic skills development in a university in Hong Kong

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Abstract

For many years universities around the world have placed students' development of generic skills high on the agenda. However, limited empirical studies can be found on how these generic learning outcomes are achieved within the curriculum. This paper reports some initial qualitative findings of interview data on students' understanding of generic skills and their experiences of such development in university. The findings will inform the development a survey instrument for use in a subsequent part of the present study and for further research in the local and international higher education arena.
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1. Background

Since the current round of curriculum reforms around the world, development of generic attributes has become an important indicator of higher education success. Generic attributes refer to some favourable personal qualities in additional to academic scholarship which graduates ought to possess in order to become capable citizens. In the last decade, employers have started to look for other job-related attributes such as flexibility, adaptability, willingness to learn, self-motivation, and effective communication in university graduates (Green, Hammer, & Star, 2009; Horsburgh, 1999). These attributes are believed to enable individuals to adapt to and contribute to the fast-growing modes of learning and fast-changing world of work in the twenty-first century. As Barnett (2000) described, the contemporary world is complex in a way that we need to understand and interpret it in response to its changes and "fragility" (p. 257). It is argued that universities, being reactive to these requirements, need to revise their curriculum in order to produce graduates with certain generic attributes. This has driven the current global curriculum reforms that highlight the shaping of young people into individuals who are not only experts in a certain subject, but who are also equipped with certain kinds of literacy, metacognitive skills, and values (Bridgstock, 2009; Leckey & McGuigan, 1997). In the recent discussions of higher education learning outcomes, such qualities are commonly accepted as "generic attributes" (Barrie, 2006b).

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Despite the extensive discussions, limited empirical research has attempted to understand how students or academics conceive of generic attributes and related learning experience in the curriculum. Implementation of generic attributes development in the curriculum is often an institutional-level initiative. To what extent the curriculum meets the expectations or needs of students is not well understood.

Barrie (2006a) studied conceptions of the teaching of generic attributes and found that academic staff might not have fully understood curriculum initiative statements, which resulted in a mismatch between expectations and practice. Higher education researchers recognize the student learning perspective, through which learning is explained as the interaction between how students perceive the learning environment and their learning approach. Of course, this may influence desirable or undesirable learning outcomes (Biggs, 1989; Trigwell & Prosser, 1997). From the student learning perspective, it is therefore important for students to be thoroughly inducted into..... so that they understand what they are to expect in and through university education. A comprehensive understanding of students' conceptions of generic skills and related learning experiences would certainly help to inform curriculum development. This paper presents some initial qualitative findings of a research study that aimed to understand generic skills development from the students' perspectives. The findings will be used to develop a survey instrument that will be used in a subsequent part of the present study and further research in local and international higher education arena.

2. Method

The present study is the first stage of a larger study. Twenty-nine interviews on learning experiences were conducted with a total of 93 undergraduate students in a research-intensive university in Hong Kong. The number of participants in each group ranged from one to seven. These students came from all faculties, including both science- and humanities-related disciplines. In the interviews, students were asked to describe their university experiences, with an emphasis on issues related to learning approaches and generic skills development. Depending on the student's preference, interviews were conducted in Cantonese, Mandarin, or English by trained interviewers. They lasted for approximately one to two hours and were audiotaped. The audiotapes were transcribed into English by bilingual (one Chinese language and English), trained research assistants.

The transcripts were consolidated and analyzed in NVivo 8 software (QSR International, 2008). In the present study, the analysis of student responses could only be viewed as the indication of the extent to which the participants were aware of and able to articulate their development of generic skills in terms of three dimensions: (1) Students' understanding of generic skills, (2) experiences of generic skills development in the academic curriculum, (3) experiences of generic skills development in the non-academic learning environment, and (4) assessment of generic skills development.

3. Results and discussions

3.1. Students' understanding of generic skills

A thorough induction of students into university education is not only about helping them to develop study skills that will potentiate their academic success. It is also about preparing them for a learning environment that is conducive to the development of generic skills that will help them grow into better citizens. As Barnett (2000) described, being aware of how we think, feel, and act is the way to help us understand how we interact with the complex world and uncertain future. It is therefore important for universities to provide an environment that fosters students' capability to understand their own cognition and learning. Although for many years generic skills development has been an intended learning outcome in the curriculum, whether students are aware of what generic skills are referred to and what is provided in the curriculum is in question.

When students were asked to define "generic skills", most described these as skills that help them in interactions with people.

"University is different from secondary school. In University there are people who came from different parts of the world and who respond to things differently. Interacting with people is a way to learn how different people handle the same things in many different ways. It is something we cannot learn in a lab." (Chemistry, Year 2, Male)

Generic skills were also conceptualized as skills that help them to understand their strengths and weaknesses and to help them learn on their own.

"University activities are bridges to help us to become aware of their strengths and weaknesses and learn to learn on our own, such as using the libraries…. When we face a challenge, we will know what kind of information we will need to collect and how to collect them. When we don't know what to know, it is OK for us to ask for help." (Logistics engineering, Year 2, Female)

Indeed students conceived of generic skills as the capabilities to analyze situations from different perspectives and make use of the resources they have to tackle problems and challenges ahead. These critical thinking abilities, learning to learn, and communication skills have been associated with higher education success for many years. However, to what extent are students aware and make use of these learning opportunities?

3.2. Generic skills development in the academic curriculum

At an institutional level, many universities have adopted curriculum-embedded or pedagogical initiatives such as a general education curriculum, experiential learning, and technological initiatives. These initiatives have been found to be theoretically linked to desirable generic qualities including higher order thinking, communication skills, reasoning abilities, and lifelong learning (Greeno, 2006; Scardamalia & Beretier, 2002). Some students found these curriculum initiatives, such as experiential learning, very useful.

"We have opportunities to develop communication skills in our curriculum. In simulated court cases, we have learned to convey our ideas professionally with others, and to different audience." (Laws, Year 4, Female)

Pedagogical innovations have been adopted by many professional degrees (Hmelo-Silver, 2004). For example, a problem-based open or guided inquiry approach, which features the development of critical thinking, problem solving, collaboration, self-management, and lifelong learning skills. However, the resources and effort placed on the development of these areas might not have been perceived efficiently or effectively.

"Our curriculum adopts a PBL approach that is supposed to be helpful to developing thinking from different perspectives. However, we think this approach somehow restricts us from being creative but limit us to think and solve problem following steps that are previously defined by scientists or practitioners." (Speech and hearing sciences, Year 2, Male)

3.3. Generic skills development in the non-academic learning environment

A number of philosophers, educators, and researchers have stressed the importance of learning in activities and interacting with the environment (Eisner, 1967; Greeno, 2006). This is particularly important nowadays when many are talking about globalization, international experiences, and cultural exchange. In terms of generic skills development, numerous researchers have found experiential learning, peer activities, and other learning activities beneficial (De Lisi & Golbeck, 1999; Goodlad, 1998; Scholz, Steiner, & Hansmann, 2004; Sivan & Kember, 1996; Southcott, 2004).

"Living in student hall has been a challenging yet fruitful experience. While senior students forced you to participate in all kinds of time-consuming activities, you had to decide for yourself what was right for you. It was hard to refuse people, but we learned to evaluate the pros and cons and be assertive of our decision. This kind of decision-making process will happen a lot in life." (Logistics engineering, Year 2, Male)

Students have made special remarks on the benefits of both structured and unstructured international exchange opportunities.

"First, you are put in an unknown situation with no one initially you could turn to. You will be forced to take the initiatives to make some new friends, understand people's culture, and take care of daily routines which are being taken cared of by parents at home." (Nursing, Year 2, Male)

"It is not a matter of length, structure, or destination. However you must not go with someone whom you are familiar with or you can be dependent. It is all about learning to be flexible and adapt to an entirely new environment. Asking the students to report on their experiences, not that what they have done but how these experiences have enriched their perspectives, is important" (Laws, Year 4, Female)

The University has provided a learning environment with diverse opportunities. It is important to open students' minds and to encourage them to take advantage of these opportunities. At the same time, it may also be useful to help them reflect upon their past experiences in relation to what is happening now, as well as to what lies ahead.

3.4. Assessment of generic skills development

At present, the most common method to evaluate the impact of undergraduate education on generic skills development is self-report surveys. The survey items focused on student's perceptions of their development in decision-making, problem-solving, analytical skills, collaboration, communication, ethical development, and vocational preparation within the university environment (Ginns, Prosser, & Barrie, 2007; Kuh, 2004; Webster, Chan, Prosser, & Watkins, 2009). However, even if generic skills are proven to be effectively developed as a result of a particular curriculum, whether and to what extent these skills are applicable outside the educational institution is still in question.

"If you ask me, I would say I am not sure at the moment if I have really learned some skills that can be used in the future. I would say I can only be sure about my feeling of confidence with these skills." (Nursing, Year 2, Male)

"If we are confident about the way we handle things now, we are more willing to pursue in other contexts or in the future. With confidence, everything seems to make more sense." (Speech and hearing sciences, Year 2, Female)

Self-efficacy is the belief that one is capable of performing in a certain manner to achieve certain goals (Bandura, 1997). In view of a changing society and uncertainties, looking at self-efficacy beliefs in handling stressful events at present may perhaps be one of the best ways to infer students' actual achievement of generic skills development at university level (Jerusalem & Mittag, 1999). The present findings are in line with the literature.

4. Conclusions

In conclusion, undergraduate students in Hong Kong conceived of generic skills as tools that increase their chances of success in solving unfamiliar problems and facing uncertainties. More particularly, these students believed that being aware of their own thinking and learning could enhance their learning opportunities. Learning to learn can be defined as learning to be flexible with diverse information and beliefs, to be able to adapt to adverse and unknown situations, and to be self-reliant (Barnett, 2000). According to Schunk (2000), learning to learn is a metacognitive process that involves being able to solve problems, aware of one's abilities, evaluate goals, reflect upon performances, and control and exercise one's learning strategies. Some of these underlying strategies of learning to learn are shared by learning to think critically (Taylor, 1999). Furthermore, having effective communication skills is an asset in increasing one's resources that will eventually increase one's chances of success. Efficacy in communication is largely affected by affective processes on the social interaction with the people you need to communicate with (Bandura, 1997). Unfair criticisms and negative feedback may threaten the confidence of

individuals in handling interpersonal communication and relationships. This will further lead to anxiety in future performance and fear of further criticism. Such aversive thinking is very much unrelated to the affective state (Bandura, 1997). Learning to think objectively and rationally could therefore be one strategy to manage negative emotions and cultivate a harmonious and fair communicative environment.

These findings suggest some implications. First, assessing self-efficacy beliefs may be a valid way of measuring the development of generic skills among undergraduate students. Second, the effectiveness of generic skills development in different course designs with different course objectives is worth further investigation. While the university provides diverse learning opportunities for students to develop into a better person, knowing how to make use of these opportunities is prerequisite. Therefore, induction programs that include elements that help students conceptualize not only their academic discipline, but also generic skills development may be helpful. These findings are derived from interview data with a small number of students and are not representative of the population. Further research on students' conceptions and experiences of generic skills development is needed.

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