

Reconceptualising Critical Thinking

Critical Thinking and Higher Education

The development of critical thinking is widely claimed as a primary goal of higher education (e.g., Barnett, 2000; Halpern, 1999; Mason, 2007). It is also part of the ethics of university teaching in promoting academic freedom (Macfarlane & Ottewill, 2004). In the current age marked by the rise of a knowledge economy and the pervasive use of information technology, critical thinking is becoming an increasingly valuable asset one needs to possess to survive in a rapidly changing world. Some of the university curricula at present that claim to equip students with skills and knowledge for the future labour market have raised concerns among academics and educational experts as such curricula tend to lack a systematic approach to achieving their intended outcomes (e.g., Barrie, 2004; Drummond, Nixon, & Wiltshire, 1998) and seem to emphasise the attainment of surface-level, creditable outcomes (Gibbs, 2001). Although many will concur that higher education should aim at developing students' critical thinking, few can agree on what critical thinking means and what it entails.

This paper is a literature review for a doctoral-level project. Three main traditions of critical thinking will be discussed briefly, followed by an explanation for the concept of critical thinking based on an analysis of experts' definitions and descriptions. Finally, gaps in the current research literature will be discussed leading to the identification of the research focus for the present doctoral-level project.

Traditions of Critical Thinking

Much of the confusion concerning the definition of critical thinking can be attributed to the different traditions of theorising. Sternberg (1986) suggests that the three strands of critical thinking traditions are philosophical, psychological, and educational. However, a review of the literature shows that the educational strand is profoundly influenced by the philosophical and psychological traditions.

While the philosophical tradition concerns a person's competence in thinking critically in an ideal situation that is free from real-life constraints such as time limit and a lack of information, the psychological tradition focuses on an individual's actual thinking performance in the presence of real-life constraints (Sternberg, 1986). The educational strand can trace its roots to both philosophy and psychology. Bloom, Engelhart, Furst, Hill, and Krathwohl's (1956) taxonomy of educational objectives for the cognitive domain, for instance, is one of the most widely known conceptualisations of critical thinking in education with its higher-level objectives often being associated with critical thinking (e.g., Renaud & Murray, 2007; Zohar, 2006), and it is based on theories and research in psychology. Some other educational conceptualisations such as Ennis' (1985) and Paul and Elder's (2001) models are based on the philosophical approach. The influence from two distinct and at times contrasting views of philosophy and psychology can enrich educational practice in critical thinking development, but it may also be a main reason for the persisting debate in the field concerning what critical thinking means and what its development entails.

Definitions and Components of Critical Thinking

There is generally a lack of consensus among educational theorists and practitioners regarding the definitions and components of critical thinking. In order to clarify the concept, 14 definitions and 13 descriptions of critical thinking by experts in the field were analysed.

Based on the analysis, critical thinking can be briefly summed up as “goal-directed good thinking” which consists of four components: abilities, knowledge, affect, and outcomes.

The abilities to think critically can be conceptualised as procedures (e.g., Dressel & Mayhew, 1954) or strategies (e.g., Ennis, 1985). Disciplinary knowledge (e.g., Facione, 1990; McPeck, 1990) and background knowledge (e.g., Dewey, 1933; Ennis, 1985) are also frequently stated as an essential component of critical thinking. Bailin, Case, Coombs, and Daniels (1999) argue that a thinking process needs to fulfil certain standards in order for it to be qualified as critical. In addition, the right attitude is also believed to ensure that one will commit himself or herself to think critically (e.g., Halpern, 1998; Norris, 1985). Ultimately, the purpose of undertaking a critical thinking process is to attain a desirable outcome (e.g., Facione, 1990; Halpern, 1998).

Academics’ Conceptions of Critical Thinking and Needed Research

Since academics play an important role in students’ critical thinking development (Haas & Keeley, 1998; Paul, 2005) and a sound understanding of the concept is necessary for translating it into classroom practice (McMurray, Thompson, & Beisenherz, 1989), there is a need to investigate academics’ conceptions in relation to critical thinking development. A review of the research literature shows that studies in this area can be categorised into three broad themes based on their foci and findings: teachers’ understandings of the concept of critical thinking and their perceptions of how it can be developed; the relationship between teachers’ conceptions and actual pedagogical practice; and factors that influence teachers’ conceptions and actual pedagogical practice. Although most of the studies found that academics agreed on the importance of developing students’ critical thinking, their understandings of the concept appear to be narrow (e.g., Howe, 2004; Paul, Elder, & Bartell, 1997). The relationship between academics’ conceptions and actual practice also seems to be

complex with interference from other factors such as institutional cultures and personal experiences (e.g., Halx & Reybold, 2005; Wilber, 2000). Current studies also tend to rely on academics' self-reports as the main source of data. There is a need for future research to account for other factors in a teaching and learning context by adopting multiple research instruments to gather data from various sources apart from academics.

Summary

Critical thinking remains a buzz phrase that is frequently invoked without much consensus on its definition. The different traditions of theorising that influence the field of education make it even more challenging to attempt to unravel the conceptual complexities. A review of relevant literature shows that there is a need to investigate academics' understandings of the concept, the relationship between their conceptions and actual practice as well as factors that influence this relationship. This area of needed research forms the focus of the current doctoral-level project in exploring the conceptions and pedagogical practice of academics in universities.

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