WP 54 THINKING ABOUT TEACHING THINKING

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ABSTRACT

Critical thinking is a promised outcome of many degrees, yet courses in thinking are uncommon, and personal experience suggests that teachers who question the validity of everyday information (such as how much water one should drink) are also uncommon. Although critical thinking is often construed as 'not taking something that is said in a source for granted' (Auckland University of Technology, 2013, p. 1), when a source conflicts with a belief, it tends to be disregarded. This 'confirmation bias', overcomes attempts to think critically by dismissing information that does not fit beliefs, perhaps because this would require a review of the beliefs and paradigms that inform everyday activities. This working paper overviews critical thinking in hospitality, and presents some common fallacies and debates that can be used to stimulate thinking. The paper concludes with a proposal to test the development of thinking skills in students using an action research approach.

Keywords: *curriculum; critical thinking; education*

INTRODUCTION

Students can learn to differentiate between spurious and worthwhile concepts by analysing the available information, but only if they realise the need to do this. More commonly, concepts worthy of debate are accepted or rejected according to custom and belief, and never evaluated objectively. Many widely held beliefs are incorrect, such as (for example) the myth that spinach is high in iron (Sutton, 2010), or food that touches the floor for less then five seconds is safe to eat. Many common beliefs are difficult to substantiate, such as the erroneous belief that one needs to drink eight glasses of water a day (Valtin, 2002), or (more contentiously) that religious texts such as the Quran and Holy Bible are the word of God and must be obeyed. Discrepancies between scientific evidence and common belief suggest that critical thinking is not as common as educators would like to believe it is (Weissberg, 2013), and significantly more difficult than many realise.

LITERATURE REVIEW

Critical thinking

Even though critical thinking is held up as a key skill of graduates (e.g. Fahim & Masouleh, 2012; Mulnix, 2012; Weissberg, 2013), academics disagree on what it is and how it can be developed (Bailin *et al.*, 1999; Fahim & Masouleh, 2012; Mulnix, 2012). The Foundation for Critical Thinking (2008) defines critical thinking as 'self-corrective thinking', that entails a 'commitment to overcome our native egocentrism and sociocentrism'. In other words, critical thinking requires disciplined reasoning and the ability to transcend the cultural and social paradigms that influence the way we perceive, experience, and interact with our environment. They further state that 'thinking left to itself often gravitates toward prejudice, over-generalisation, common fallacies, self-deception, rigidity, and narrowness', and 'a tendency to … accept whatever was presently believed as more or less eternal truth'. While their views exemplify the dangers of sloppy thinking, the literature suggests that university educators are amongst the sloppy thinkers, and are therefore largely unable to help their students improve their thinking skills (Pithers & Soden, 2000; Weissberg, 2013). Although critical thinking is often construed as 'not taking something that is said in a source for granted' (Auckland University of Technology, 2013, p. 1), when a source conflicts with a strong view or belief, it tends to be disregarded. This tendency, known as 'confirmation bias', overcomes any attempts to think critically by dismissing information that does not fit with prior beliefs, perhaps because if accepted, those beliefs would need to be reviewed.

Belief or fact?

Some ideas are routinely relegated to the category of belief, whereas others are accepted as facts, when in reality, the division between them is more related to paradigmatic thinking than whether or not something is known to be true. For example, despite a plethora of accounts of near death experiences (e.g. Grossman, 2007), consideration of what some view as incontrovertible evidence is influenced more by religious beliefs than open-minded thinking prepared to accommodate new ideas.

Kuhn (1993), a researcher on the effect of moon cycles on plant growth, suggested that rational argument and thinking are a weak influence on beliefs, judgments, and decisions about everyday life. The ability to think critically is hampered not just by beliefs, but also by relevant experience; it is difficult to accept information that falls outside personal experience. Therefore, contentious concepts such as aliens, ghosts, and out of body experiences are difficult for some people to accommodate unless they have experienced them themselves.

Fear of being unable to argue the case for a contentious idea also restricts the ability to accept ideas outside mainstream thinking.

Critical thinking for hospitality students

Berger (2008) observed that although critical thinking is needed in hospitality management, most hospitality students show more interest in career goals than in learning how to think and research. However, critical thinking is necessary for hospitality, along with a curriculum that develops reflective practice (Lashley, 2007), because problem solving is an integral part of a hospitality managers' role (Li *et al.*, 2013). Graduates need to 'critically reflect on the contents and methods of hospitality management practices by questioning the taken-for-granted assumptions of the hospitality industry' (Zwaal & Otting, 2007, p. 259). In practice, critical thinking in hospitality is likely to generate creative thinking about new products and services, such as asking customers to pay what they feel a meal is worth, or developing capsule hotels offering the bare essentials for a comfortable sleep.

Critical thinking is not just required for hospitality and tourism studies (e.g. Fullagar & Wilson, 2012; Lashley, 2007; Wilson *et al.*, 2012), but also for research, and day-to-day work and life. Without the ability to think critically, students will read and believe class material instead of considering, reasoning, and evaluating the ideas. In a study of over 3000 American university students, Arum and Roska (2011, p. 204) found that 'gains in critical thinking, complex reasoning, and writing skills' are either negligible, or non-existent for most students during the course of their education.

Developing critical thinking

Whereas *The God Delusion* (Dawkins, 2008) refutes the existence of God using science, *The Science Delusion* (Shaldrake, 2012) asserts that much of science is based on assumptions, and rejects outright, any ideas that are neither material nor physical. The simultaneous existence of these conflicting views demonstrates the need for critical thinking to determine whether either is correct, or whether the mind should stay open, scanning for new material. Classroom activities can be designed to encourage students to read and discuss conflicting ideas without coming to a conclusion and forming a belief. Potential topics include homeopathy, the collapse of the twin towers (9/11), the benefits or dangers of fluoride, causes of Alzheimer's disease, the affect of the moon on plant growth, and the relationship between sunscreen and melanoma (for example).

PROPOSED RESEARCH

In the first phase of this study, 15 people were surveyed about their beliefs. Out of body experiences and homeopathy had the highest scores in the study (i.e. were most readily accepted), compared with the belief that the moon affects plant growth, and plastics thrown into recycling bins are actually recycled, both of which obtained very low scores.

Influences on two beliefs (the efficacy of therapeutic vitamin C and the validity of astrology) revealed the importance of personal experience, reasoning, and advice from friends and family in the formulation of ideas. Personal experience was identified as the most trusted source of information, suggesting that unless participants could experience a phenomenon, they were reluctant to believe in it.

The next phase of the study examines a technique to encourage thinking and alert students to the idea that they habitually work with spurious information. This involves surveying students before and after investigating contentious topics to determine if their views change, the influences on their thinking, and whether exercises in thinking make them more or less sceptical. The over-arching purpose of the study is to determine a method of encouraging critical thinking in both teachers and students. Contentious topics similar to those overviewed in this paper will be given to students to research, using critical thinking to determine whether or not the ideas have any basis in truth. It is hoped that grappling with beliefs that are contrary to cultural and family influences will help students understand the need to be sceptical and think critically.

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