In this paper we argue that education for a just democracy depends upon the development of sound justificatory reasoning. It has been recognised that since the time of Socrates, there is a fundamental relationship between education and a just democracy. The primary goal of education in a western society is seen to be one of promoting such a democracy. It can be argued that a ‘just democracy’ depends upon individuals’ ability and readiness to engage in justificatory reasoning, reasoning in which judgments are made on the basis of ‘arguments that are both logically cogent (i.e. which have true premises and which are either inductively strong or deductively valid) and ethically grounded (i.e. with premises which express appropriate regard for the welfare of others)’ (Collins, 2005, p.18). The goal of education then becomes one of developing the disposition to make such sound judgments.
Introduction

In this paper we argue that education for a just democracy depends upon the development of sound justificatory reasoning. It has been recognised that since the time of Socrates, there is a fundamental relationship between education and a just democracy. The primary goal of education in a western society is seen to be one of promoting such a democracy. It can be argued that a ‘just democracy’ depends upon individuals’ ability and readiness to engage in justificatory reasoning, reasoning in which judgments are made on the basis of ‘arguments that are both logically cogent (i.e. which have true premises and which are either inductively strong or deductively valid) and ethically grounded (i.e. with premises which express appropriate regard for the welfare of others)’ (Collins, 2005, p.18). The goal of education then becomes one of developing the disposition to make such sound judgments.

Epistemological Levels Theory

Within the branch of Cognitive Psychology known as Epistemological Levels theory, the term ‘evaluativism’ is used to describe justificatory reasoning. Epistemology itself is a branch of philosophy concerned with questions about the justification of beliefs. Epistemological Levels theorists suggest that people in general, not just philosophers, hold a variety of views about how beliefs are to be justified. The argument for the important role played by sound justificatory reasoning, or evaluativism, is summarised by Kuhn: ‘no other kind of thinking matters more to the quality and fulfilment of peoples’ lives, both individually and collectively’ (1992, p.156).

Researchers such as Perry, Baxter-Magolda, Belenky and colleagues, King and Kitchener (summarised by Hofer & Pintrich, 1997) and Kuhn, Cheney and Weinstock (2000) plot a common developmental sequence of beliefs about justification. This sequence ranges from absolutism (i.e. appeal to authority) through relativism (i.e. all points are valid) to evaluativism (i.e. the understanding that conflicting viewpoints can be compared and evaluated on the basis of reason and evidence). While the researchers in this field have varying theories as to the exact number of reasoning levels and varying titles for each level, the order in which reasoning develops is generally agreed upon. The terms used in this paper are derived from the work of
Kuhn and her colleagues who posit three broad stages of justificatory reasoning, each stage being broken down further where intricate analysis is necessary.

**Stages of Justificatory Reasoning**

As Knight and Collins (in press) explain, the three broad justificatory reasoning levels can be described as follows. The first level is that of absolutism. An absolutist turns to authorities and observation for justification of knowledge and truth claims, and does so unquestioningly. For an absolutist knowledge is accessible and certain. The second level is relativism. Relativism develops once the individual recognises that experts and observation reports disagree, and the individual concludes as a consequence that no one view is closer to the truth than any other. A relativist considers all beliefs to be equally justified: ‘because all people have a right to their opinions, all opinions are equally right’ (Kuhn, 1999, p.22). The third justificatory reasoning level (and we would argue, desired educational endpoint) is evaluativism. Evaluativist reasoning develops when it is recognised that although beliefs and knowledge claims differ and conflict, these beliefs and claims can be evaluated on the basis of evidence and logical argument. An evaluativist understands that although no evidence can be conclusive, some beliefs and actions are better supported than others. An evaluativist also understands the transient nature of knowledge claims.

Kuhn, Cheney and Weinstock (2000) have looked further at the epistemological development process distinguishing five judgment domains (personal taste, aesthetic, value, truth about the social world and truth about the physical world), in order to determine whether or not epistemological development occurred in a domain-dependent manner. The domain-dependent sequence Kuhn and her colleagues describe is as follows: transition from absolutism to relativism appears first in judgments of personal taste, then aesthetic judgments, value judgments, judgments about the truth of social world and finally judgments about the truth of the physical world. Transition from relativism to evaluativism occurs in the opposite direction.

**Evaluativism as Desired Developmental Endpoint**

Evaluativism is the desired developmental end point in each judgment domain, to which cognitive psychology and philosophy both agree. There are inevitable dangers in accepting the word of an authority, or the way things appear at first sight. Similarly
there are dangers in disregarding evidence and accepting the legitimacy of all beliefs, traditions and practices whatever their outcomes. Evaluativist thinking is required to avoid these dangers.

To demonstrate this point let us consider the following examples. Evaluativist thinkers would look to the medical research when deciding which treatment is most effective for migraine headaches. They would check the research credibility, check for bias, check the logic of the argument, compare different results and methods, and would finally make a decision based on all the evidence and reasoning. An absolutist would accept the effectiveness of a medical treatment without considering the legitimacy of the ‘authority’. A relativist would argue that all migraine treatments have their merits leaving nothing to choose between the treatments. In considering the rightness or wrongness of a cultural practice, such as the ritual killing of animals, an evaluativist would employ an ethical yardstick of some kind. For example, the good and harm caused, whether that harm was necessary for the good of many others or not and whether the practice actually brought about the intended consequences. Based upon these points an evaluativist would weigh up the good and harm of the likely consequences, and make a judgment as to whether or not the practice was morally right or wrong. An absolutist would most likely look to the laws of that culture and, if the practice was within the law, condone the practice. A relativist would see no issue; what one does in ones’ own culture is completely acceptable, it is just not allowed in my culture.

**Critical Factors in the Development of Evaluativist Thinkers**

As indicated earlier, the research to date shows that justificatory reasoning develops over time in sequential stages. Kuhn (1999), in studying people of all ages, has discovered a pre-absolutist epistemological stage: the realist level. At this realist level young children see beliefs and assertions as caused directly by the external world. As Kuhn puts it (2003, p.1), on this view of knowledge, ‘there can be no false beliefs, no inaccurate renderings of this reality.’ By the age of about four, a child ‘...appreciates knowing as connected to and generated by a knowing agent to a sufficient extent to understand that beliefs may deviate from a single, true reality’, and in doing so, makes the transition to the next epistemological stage, that of absolutism. Every child makes this transition. Beyond this however, an individual’s epistemological level
does not appear to correlate with age; the further three stages are all represented in the adult population. Nor is there a correlation with gender. However, an individual’s epistemological level does appear to correlate with education as an avenue for the development of evaluativist thinkers (Kuhn et al, 2000). On the whole this correlation sounds promising. However, the research also makes clear that the nature of the education is critical in the effective development of evaluativist thinkers.

Prominent research by Perry in the 1970s, King and Kitchener in the mid nineties and Kuhn over the past ten years has shown that relativism is the most sophisticated epistemological level reached by the majority of adults. This included undergraduate students at the end of their university programs. My doctoral research within the University of South Australia suggests similar alarming results for final year teacher education students. That is, the majority are reasoning at the relativist level indicating that these teacher education programs, along with other university programs, fail to cultivate evaluativist thinking students. For the reasons given earlier this finding is of great concern for the desired educational endpoint and raises the question: Is there anything universities can do to foster evaluativist thinkers? Preliminary research by Kuhn and others (Brownlee, 2003; Collins, 2005; Hill, 2000; Knight & Collins, 2000; 2005-2006; Kuhn, 1992; Kuhn et al, 2000; Kuhn & Udell, 2003) indicates that there might be. The research findings point to Community of Inquiry as being of benefit to universities.

**Identifying Epistemological Levels**

Thus far, Epistemological Levels researchers have found that interviews are the only effective method of identifying research participants’ epistemological levels (King & Kitchener, 1994; Kuhn, 1993). However, interviews are lengthy and costly, particularly for large-scale studies. Kuhn (1993) along with King and Kitchener (1994) found interviews successful for two reasons: firstly, interviews enable the interviewer to ask specific questions regarding a participant’s response and secondly, interviews enable the interviewer to ask further specific questions to determine the reasoning behind the response.

A handful of researchers have attempted over the past fifteen years to develop an instrument capable of replicating the detail captured during interviews (Kuhn et al,
So far the questionnaires developed have been unsatisfactory for a variety of reasons. Schommer’s questionnaire items lack context and are too abstract to allow meaningful conclusions to be drawn from them. For example, participants are asked the extent to which they agree or disagree with statements such as: ‘A course in study skills would be valuable’, ‘I try my best to combine information across chapters or even across classes’, ‘Nothing is certain, but death and taxes’ and ‘I don’t like movies that don’t have an ending’ (Schommer, 1998, n.p.). Schraw and colleagues adapted a number of Schommer’s items for their own questionnaires but these also lack context and are too abstract for meaningful conclusions. Kuhn, Cheney and Weinstock’s questionnaire (2000) is the most promising. The items attempt to separate out the three epistemological levels by first, identifying absolutist thinkers and then separating relativist thinkers from evaluativist thinkers. Whist the development of this questionnaire is an important milestone there appears to be issues surrounding the reliability of the data generated. Careful examination of the questionnaire reveals that ambiguity of the items makes incorrect identification of participants’ epistemological levels highly possible. It seems clear that the problem thus far has been reducing complex interview processes into simple and efficient paper and pencil questionnaires. Further empirical research into identifying epistemological levels therefore requires an efficient instrument exhibiting both validity and reliability.

The development of a valid and reliable questionnaire designed to test the epistemological levels of teacher education students therefore formed part of my doctoral research. The result has been the creation of an instrument which captures the complexity and depth of an interview whilst remaining simple in terms of participant navigation. In reference to the problem of previous questionnaires, only three domains were looked at (moral, physical – truth in the physical world and social – truth in the social world). Scenarios were created to contextualise the items and reliably and consistently identify participants’ epistemological levels. Recently, a large number of final year undergraduate and postgraduate pre-service teaching students completed the questionnaire as part of the doctoral research. The undergraduate participants were at the end of the final semester of a four year university program, after which they would be qualified school teachers. The
postgraduate participants were in their first semester of an eighteen month graduate-entry teacher education program (each having previously completed an undergraduate degree), after which they would be qualified primary and middle or middle and secondary school teachers. Preliminary findings reveal the majority of pre-service teachers were thinking as relativists in each domain. The results for undergraduates showed 46% in the moral, 68% in the physical and 46% in the social domain. The results for the postgraduates showed 56% in the moral, 75% in the physical and 57% in the social domain. These results are consistent with previous research in this area.

As it stands current pre-service teachers’ epistemological development appears to have stopped at the relativist stage. This creates two issues. One issue is that current pre-service teachers appear unable to demonstrate even a minimal understanding of the nature of evidence and to make well reasoned judgments regarding moral rightness and wrongness. This surely raises concerns when one considers the catch-cry of relativists: what right have I got to tell someone they’re wrong when what they believe or what they do in their own culture is up to them. The second issue is that relativist thinking actually runs counter to the development of evaluativist thinking. How is it possible for a relativist thinking teacher to encourage, foster and instruct students to make well reasoned judgments about moral issues, about physical world or social world issues when they are unable to themselves? How is it possible for a relativist teacher to ask ethical questions of students, and expect, or allow, any responses other than those of unquestioning tolerance and acceptance of all actions relative to culture or laws or beliefs? Clearly teachers themselves must think as evaluativists if they are to foster evaluativist thinking in their students. In other words, unless teachers themselves understand the importance of employing rational procedures and using evidence in the pursuit of truth, it is highly unlikely that they will succeed in fostering an evaluativist disposition. We need to consider then how we might go about developing evaluativist thinking in teachers.

**Developing Evaluativist Thinking Teachers**

Based upon the Epistemological Levels literature and the arguments made here for evaluativist teachers, the direction in which my doctoral research is heading is as follows. The first step is to establish what factors lead to the development of evaluativist thinkers. Preliminary small-scale studies (Hill, 2000; Kuhn, 1992; Kuhn
et al, 2000; Kuhn & Udell, 2003; Lipman; 1985) have pointed to factors which foster evaluativism: Community of Inquiry, training in formal logic and acquiring depth of knowledge in a discipline (Brownlee, 2003; Donald, 2002; Hill, 2000; Hofer & Pintrich, 1997; Knight & Collins, 2000; 2005-2006; Kuhn, 1992; Kuhn et al 2000). Recent research (as summarised in Collins, 2005) has pointed to the particular importance of Community of Inquiry approaches in developing justificatory reasoning skills. Community of Inquiry skills include those skills described by Kuhn and Udell (2003); generating reasons, elaborating reasons, supporting reasons with evidence, evaluating reasons, developing reasons into an argument, examining and evaluating opposing side’s reasons, generating counterarguments to others’ reasons, generating rebuttals to others’ counterarguments, contemplating mixed evidence (evidence that supports different claims) and conducting and evaluating two-sided arguments.

The Community of Inquiry style dialogue is drawn directly from Socrates himself. The term was coined by Matthew Lipman in the early seventies. Community of Inquiry is precisely what the name implies, it is a group of people (people of any age) having a logically structured discussion, or inquiry, of a philosophical concept or question, such as ‘What is right?’, ‘What is beauty?’, ‘When is it okay to kill animals?’ or ‘What counts as evidence?’. Each discussion has a facilitator and centres around a set of logically structured questions specifically designed to answer the discussion question and to develop and practice participants’ skills of argument. The Community of Inquiry method can be used then to develop and practise the skills of argument, demonstrate the need for argument and, importantly, foster evaluativist thinking. This style of dialogue has been shown to be suitable for use in all curriculum areas and at all levels of education, including university programs.

Currently in an Adelaide university teacher education program, there are two newly developed core courses which are underpinned by the Community of Inquiry approach. This provided an opportunity to investigate the influence of the Community of Inquiry approach on the development of evaluativist thinking. Although teacher educators in these courses had identified changes in students’ thinking throughout the course, these changes had yet to be documented. A preliminary review of my doctoral research data indicates that students who had
engaged in community of inquiry style courses gave fewer absolutist and relativist responses and a higher number of evaluativist responses.

It is unclear whether the Community of Inquiry approach is reinforced and supported by the remainder of the program. Without such support within the teacher education program two problems arise. Firstly, students’ relativist, and even absolutist, thinking will be encouraged and instilled by a majority of the courses throughout the program thus limiting the impact of the courses to little or none for many students. Secondly, during the two Community of Inquiry courses students will be on the whole ill-prepared to engage in evaluativist thinking. Nine or even eleven tutorials is far too short a time in which to develop evaluativist reasoning, given that students’ relativist and absolutist thinking is so entrenched at this point in their lives (18-21 years of age).

If the goal of a just democracy is important to us, and if education is the avenue to achieving this goal then we need teachers to be evaluativists. Therefore evaluativist thinking must be fostered throughout teacher education programs. My doctoral thesis poses the question, ‘What can universities to do foster evaluativist thinking in pre-service teachers? And specifically, whether Community of Inquiry methodology is effective in developing evaluativist thinkers. Results to date have indicated that pre-service teachers are reasoning at the relativist level and that Community of Inquiry methodology can be used within teacher education programs to reduce absolutist and relativist reasoning and foster evaluativist thinking.

References


