

CAN CRITICAL THINKING BE TAUGHT? A DEWEYAN PERSPECTIVE ON THE NOTION OF CRITICAL THINKING WHEN APPLIED TO ICELANDIC EDUCATION

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ABSTRACT

In this article I will explore and discuss the meaning of the concept critical thinking when applied to Icelandic education from Deweyan perspective. I will explore the concept of critical thinking by referring to the Icelandic philosopher Páll Skúlason, Emeritus Professor, Robert Ennis at University of Illinois and Jennifer Moon, Associate Professor at Bournemouth University, who have all written about critical thinking from the viewpoint of education. My special question, to be discussed against the background of the central position the concept of critical thinking has acquired in the Icelandic national curriculum framework from 2011, is whether critical thinking is something that can be taught. Thus, the target group for my reflections are primary school students in Iceland, and my question is limited to the space a national curriculum framework provides for teaching critical thinking in a school context. I will discuss this issue mainly on the basis of John Dewey's thought, bringing into the discussion some of the central concepts in Dewey's pragmatic philosophy like inquiry-based learning, experience, and thinking. I base my analysis of Dewey's philosophy mainly on "Experience and Education" (1938), "How we Think" (1933) and "Art as Experience" (1938).

KEYWORDS

Thinking, critical thinking, education, experience, students.

INTRODUCTION

The general section of a new national curriculum guide in Iceland was introduced in the year 2011. The fundamental pillars of education and the points of emphasis of the Compulsory School Act (The Ministry of Education, 2011) are to be the guidelines for general education, as well as the working methods of the compulsory school. The fundamental pillars are: literacy in the widest sense, education towards sustainability, health and welfare, democracy and human rights, equality and creativity. The fundamental pillars are to appear in the content of subjects and subject areas of the National Curriculum Guide (The Ministry of Education, 2011), in the students' competence, study assessment, the school curriculum guide and the internal evaluation of schools. All the fundamental pillars are based on critical thinking, reflection, scientific attitude and democratic values. According to the curriculum the students' reasoning and critical thinking should be encouraged in all education, as well as their creative thinking and problem solving. Precise definitions of critical thinking are, however, lacking in the National Curriculum.

This article explores the concept of critical thinking from the viewpoint of education by asking: Can critical thinking be taught? To shed some light on critical thinking and how it is connected to education

and experience I draw upon John Dewey's (1938) philosophy of the interconnectedness between experience and education, concluding that all education is a process of living and not a preparation for future living. Dewey believes that the school must represent actual life, as real and vital to the student as that which he carries on in the home, in the neighbourhood, or on the playground. For the concept of critical thinking, I use Páll Skúlason's (1990) definitions of critical thinking. According to Skúlason, critical thinking is:

... the kind of thinking which does not assent to any view or statement without having first examined what it involves and found sufficient ground for it. In other words, critical thinking is a process of searching for new and better reasons for one's ideas and views, and consequently of continually revising them. (Skúlason, 1990, p. 15)

DEWEYAN PERSPECTIVE

In "The Child and the Curriculum", Dewey (1902/1990a) emphasises that students learn by doing and reflecting, talking and interacting with other students and teachers. The connections between education and personal experience are the most important in education. In "Democracy and Education", Dewey (1944), argues that "We do not learn from experience as much as we learn from reflecting on experience"; that is, experience alone does not lead to learning. Students learn from thinking about the experience, what it means, how it felt, and where it may lead to and what to do about that experience (Dewey, 1944). All communication is based on experience and creates experience and therefore needs to be connected to reflection in order to become meaningful to those taking part in it. Knowledge will occur in circumstances where the student can connect it to a meaningful experience (Dewey, 1902/1990a). When education is based upon experience and educative experience is seen to be a social process, the situation changes radically. The teacher loses the position of external boss or dictator, but takes on that of a leader of group activities (Dewey, 1938 p. 59). But not everything experienced is consolidated into a recollected experience. Dewey stresses that there is one permanent frame of reference: namely, the organic connection between education and personal experience; or, that the new philosophy of education is committed to some kind of empirical and experimental philosophy. But experience and experiment are not self-explanatory ideas. The belief that all genuine education comes about through experience does not mean that all experience is genuinely or equally educative. Traditional education can offer a plethora of examples of experience, but often the wrong experience according to Dewey. Hence experience and education cannot be directly equalled to each other. For some experiences are miseducative. Any experience is miseducative if it has the effect of arresting or distorting the growth of further experience (Dewey, 1938 p. 25-26). Dewey stresses that no experience is educative that does not tend both to knowledge of more fact and the stimulation of more ideas, as well as to their better and more orderly arrangement (Dewey 1938 p. 82). Learning will happen by thinking about the experience, what the experience means and whether the experience leads to a new experience. Meaning and experience that carries with it its own individualizing quality and self-sufficiency can be called experience. (Dewey, 1934/2005, p. 36-40).

THE CURRICULUM IN ICELAND

The national curriculum in Iceland sets the foundation for general education appropriate for the 21st century, wherein general education is defined with regard to social and individual needs through creativity and experience. This is formulated in the curriculum text in the following way:

At any given time, general education advances the capacity of the individual for meeting the challenges of everyday life. General education therefore contributes towards the individuals' understanding of their characteristics and abilities and consequently their capacity to fulfill their role in a complex society. It is at the same time both individually and socially oriented (The Ministry of Education, 2011, p. 13).

In the general section of the Icelandic curriculum, emphasis is placed on creativity, stating that it should constitute one of the central pillars of education. Part of creativity is the skill to reflect critically but it also involves the shaping of subject matters and their mediation, creating something new or in a different way from what the individual knows, or has done before.

THE ROLE OF TEACHERS

I will now explore the teacher's role in implementing the new curriculum and the definitions of what critical thinking is. Dewey (1900/1990b) believes that every student has unused potential and the role of the teacher is to create certain conditions in order for the student's abilities to develop and grow for the good of the student and for the community as a whole. This is in line with education specialist Elliot Eisner (2002). He believes that students' minds are not unploughed acres. On the contrary, he claims that students are susceptible to the seeds sown by their teachers. It is necessary to take into account the students' previous knowledge because new knowledge is adopted and interpreted according to previous knowledge (Dewey, 2000). The French philosopher Paul Ricoeur (1976, p. 71) stresses that to understand the meaning of what is said or written, students have to be able to interpret what is said and written. School projects and tasks need to be in coherence with real-life situations outside school. In my analysis of the importance of critical thinking I sum up the following: For the students to respond to this challenge they need to be interested and see the purpose of learning. The students must be active participants in the process of understanding, knowing, and achieving through creativity and critical thinking.

The Icelandic national curriculum framework created in 2011 stresses that the primary role of teachers is educational and pedagogical work with students. They have to stimulate and maintain the students' interest in their study, guide them in various ways, encourage a good working atmosphere among the students and give them a chance to work in peace (The Ministry of Education, 2011, p. 42). The curriculum also emphasizes that teaching methods should take into account the development, personality, talent, abilities and interests of each individual student and that critical thinking and problem solving should be encouraged. This is in line with Deweyan thinking. He encourages the teachers to use the material according to the students' experience and previous knowledge (Dewey, 2000). Dewey also believes that the teacher is not in the school to impose certain ideas or to inculcate certain habits in the student, but rather as a member of the community who decides which influences

affect the student and assists the student in properly responding to these influences (Dewey, 1897).

THE GENERAL NATURE OF CRITICAL THINKING

Robert H. Ennis, (2011) amongst others, has outlined the nature of critical thinking. He believes that the critical thinking disposition is that critical thinkers take care that their beliefs are true and that their decisions can be justified. They seek alternative hypotheses, explanations, conclusions, plans, sources, etc., and are open to them. They seriously consider other points of view than their own, they try to be well informed and endorse a position, but only to the extent that it is justified by the information available. They try to understand and present a position honestly and clearly, theirs as well as that of others, and they listen to others' views and reasons and seek and offer arguments (Ennis, 2011). Ideal critical thinking avoids intimidating or confusing others with its critical thinking prowess, taking into account other people's feelings and showing a level of understanding and care about every person. By following the guidelines that Ennis provides on critical thinking, this process could be taught. Hence the school system has to teach the students to think about studying and learning in a different way. In primary education in Iceland, students learn to criticize books, music and movies and they learn that the meaning of the world can be negative. According to the present curriculum, students have to learn to think in a critical way about what they are reading, in books or online and learn to question the material they are given. The school and the teachers have to allow the students the freedom of exploring the material they are working with. They have to be able to use all the new technology the students have control over. The students also have to be taught to recognize that whatever they do and whatever they read, they are always, to some extent, controlled by pre-understanding and prejudice. They have to take into account that to know something and to learn what something is, is to know its context in relation to other things (Ricoeur, 1981).

Jennifer Moon (2008) stresses that critical reflection, might include critical thinking, but when students are engaging in critical thinking, they also reflect in order to achieve the kind of thinking that engages prior experience. As the term "critical thinking" implies, thinking clearly has something to do with critical thinking, but, again, it does not involve the entire process. Like reflection, critical thinking implies more detail than the generic term of thinking (Moon, 2008, p. 132-133). But do all teachers have the same perspective of critical thinking? Different teachers must have different frames of reference for critical thinking based on the various activities in which the thinking was employed. Like reflection, it implies more detail than the generic term of "thinking" Dewey makes the following point:

No one can tell another person how to think, but the person who understands what the better ways of thinking, or different ways of thinking are, can, if they wish, change his or her own personal ways until they become more effective. While we cannot learn or be taught to think, we do have to learn to think well, especially to acquire the general habit of reflection (Dewey, 1933 p. 1).

Dewey continues; engaging in active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends, constitutes reflective thought (Dewey, 1933 p. 6).

THE IMPORTANCE OF CRITICAL THINKING IN THE CONTEXT OF LEARNING

In the beginning the I asked the question: “Can critical thinking be taught?” From the perspective of science and education this is an extremely important question. According to the text in the Icelandic national curriculum, critical thinking in the context of learning is intertwined with creative teaching methods that constantly offer new possibilities, and therefore the creative process matters no less than the final product. Although the general sense of creation is closely connected to art and art studies, creativity, as a fundamental pillar in the national curriculum, is no more limited to art studies than to other subjects or fields of study (The Ministry of Education, Science and Culture, 2014, p. 22).

The Icelandic national curriculum guide stresses new ways of thinking in school activities and places an emphasis on creativity, experience, rationalism and research. This is in line with the definition of critical thinking by Skúlason (1990). He stresses that critical thinking is a process of searching for new and better reasons for one’s ideas and views, and consequently revising them (Skúlason, 1990). This definition, on the other hand, says nothing about how one can form an opinion or assertion; it rather describes how to evaluate the opinion and assertion that is available. Critical thinking is “thoughtful thinking”, it challenges an idea. Critical thinking is to question everything and not believing just because someone wrote or said something. Dewey points out that reflective thought implies that something is believed in, or disbelieved, not on its own merit, but through something else which stands as witness, evidence, proof, voucher, warrant; that is, as a basis of belief (Dewey, 1933, p. 8). Ennis (1996, p. 165-182) believes that critical thinking is a reasonable and reflective process focused on deciding what to believe or do. Moon (2008, p. 25) stresses that clearly critical thinking has something to do with the processes of learning but it is not all of learning.

When education is based in theory and practice upon experience, it goes without saying, that the organized subject matter contributed by the adult and the specialist cannot provide the starting point. Nevertheless, it represents the goal education should continuously move towards.

CAN CRITICAL THINKING BE TAUGHT?

Now I will come back to the title question of my article: Can critical thinking be taught as applied in Icelandic education? By itself, it is obviously not enough to teach people particular procedures for looking into things on their own. It is also necessary to persuade them to embrace the will to believe nothing other than what is grounded in inquiry, instead of letting their thoughts be controlled by their own wishes or concerns. For this is the meaning of the principle that it is wrong to believe anything on insufficient grounds (Skúlason, 1990). Students’ reasoning and critical thinking should be encouraged as well as their creative thinking and problem solving. Students should be trained in reasoning and supporting their views orally and in writing. It is important that students learn to reflect on their ideas and realize what effect feelings have on their thoughts, sound judgment and ability to respond to new circumstances.

Hence, it is part of a teacher’s responsibility to see to two things equally: First, to ensure that the

problem facing the students grows out of the conditions of current experience and that this experience is within the capacity range of the students; and, secondly, that its nature is such that it arouses in the learner an active quest for information and for production of new ideas. The new facts and new ideas thus obtained become the ground for further experiences in which new problems are presented (Dewey, 1938 p. 79).

So, what is enough? And how is it possible to teach students to think in a critical way? If the students cannot believe anything without examining it first, or, if they have to question everything, will they ever learn anything? And if it is wrong to believe anything on insufficient grounds what should they believe? Should the students then question everything the teacher tells them just because they have not examined and found sufficient ground for what the teacher is saying? Is it possible to teach critical thinking if the teacher determines what material to teach? How to teach it? How should work be organized? In sum, the entire classroom environment and the development of the students is subject to the professional judgement of the teacher. The task of specifying a critical thinking disposition for the purpose of teaching and assessment is not an easy one. Different teachers have different standards of reference for critical thinking. The national curriculum offers no definitions of what critical thinking involves, although a definition of creativity, has been released in a special publication as a fundamental pillar of education. Therefore, it could be argued that by using creative teaching methods students will learn to think in a critical way. Creativity comprises methods that constantly offer new possibilities, and, therefore, the creative process matters no less than the final product. Part of creativity is the skill to reflect critically. In other words, to be able to reflect critically is a process of searching for new and better reasons for one's ideas and views, and consequently of continually revising them, in accordance with the Skúlason (1990) definition of critical thinking.

CONCLUSION

In this article, I have explored the Deweyan perspective on the notion of critical thinking applied to Icelandic education. The Icelandic national curriculum guide stresses new ways of thinking in school activities, emphasising creativity, experience, rationalism and research. Dewey stresses that students will not learn from experience as much as they learn from reflecting on experience and that the connection between education and personal experience is the most important aspect of education. He also points out the advantages of learning by doing where students are active participants in a quest for knowledge, not only passive recipients.

Education takes the individual while he is relatively plastic, before he has become so indurated by isolated experience as to be rendered hopelessly empirical in his habit of mind. The attitude of childhood is naïve, wondering, experimental; the world of man and nature is new. Right methods of education preserve and perfect this attitude, and thereby short-circuit for the individual the slow progress of the race, eliminating the waste that comes from inert routine” (Dewey, 1933 p. 156).

He encourages teachers to use material suited to the student experience and previous knowledge because new knowledge is adopted and interpreted according to previous knowledge. For some teachers this is a challenge and calls for a change in their teaching practices. Dewey stresses the uses of creativity and creative teaching methods for the benefit of the students. The essence of creativity

is the skill to reflect critically. For students to respond to this challenge they need to be interested and acknowledge the purpose of learning. The students must be active participants in the process of understanding, knowing, and achieving through creativity and critical thinking. If the school system succeeds in implementing creativity and critical thinking in basic education, the school, the students and the community as a whole will grow as a result.

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