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Published in:
The Palgrave handbook of critical thinking in higher education

DOI:
[10.1057/9781137378057.0044](https://doi.org/10.1057/9781137378057.0044)

[Link to publication](#)

Citation for published version (APA):
Volman, M., & ten Dam, G. (2015). Critical thinking for educated citizenship. In M. Davies, & R. Barnett (Eds.), The Palgrave handbook of critical thinking in higher education (pp. 593-603). New York: Palgrave Macmillan.
<https://doi.org/10.1057/9781137378057.0044>

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Critical Thinking for Educated Citizenship

Monique Volman and Geert ten Dam

Introduction

Among the competences that are considered necessary for a democratic way of living are “consideration for others,” “helping others,” and “caring for each other” (Westheimer and Kahne 2004). In the past few decades, however, it has been emphasized that a democratic, pluriform society not only requires citizens to be prepared to make their own contributions to society, but also to do that in a critical way (see Ten Dam and Volman 2004; Wardekker 2001). Nowadays people are not expected to “know their place” but to “determine their own position.” Of course, the extent to which a “critical” approach is valued and by whom differs, but “to be critical” has become an undeniable part of Western culture; a critical approach is frequently appreciated more than subservient accommodation. In this vein, definitions of “good citizenship” imply that citizens are willing and able to critically evaluate different perspectives, explore strategies for change and reflect upon issues of justice, (in)equality, and democratic engagement in addition to a capacity to function in a socially accepted and responsible manner within a community (Westheimer 2008). This also requires making choices and knowing why you are making that choice, respecting the choices and opinions of others, communicating about these, thereby forming your own opinion, and making it known. The interest since the 1980s in “critical thinking” as an educational goal reflects these new competences that citizenship in modern society demands.

In this chapter we focus on teaching critical thinking as a citizenship competence in higher education. First, we will give a brief overview of the various approaches to critical thinking and the strategies that have been proposed for teaching critical thinking in the last century. Building upon the premise that critical thinking can best be learned in meaningful contexts and in collaboration with others students (Ten Dam and Volman 2004), we then take a further step by focusing on the concept of communities of learners as a pedagogical

concept. We differentiate between a socio-constructivist approach and a socio-cultural approach and explore their potential for learning critical thinking as a citizenship competence.

Teaching critical thinking

In the last decades of the twentieth century many people alleged that critical thinking contributes to the development of rational deliberation relevant to a democratic society (Lipman 1991; Weinstein 1991). From different perspectives, critical thinking was proposed as a valuable goal for education. From a philosophical point of view, critical thinking was primarily approached as the norm of good thinking, the rational aspect of human thought, and as the intellectual virtues needed to approach the world in a reasonable, fair-minded way (Ennis 1991; Gibson 1995; Paul 1992). Psychologists conceptualized critical thinking first and foremost as higher-order thinking skills and focused attention on the appropriate learning and instruction processes (Halpern 1998; Kuhn 1999; Pascarella and Terenzini 1991). Last, the concept of critical thinking functioned in “critical pedagogy.” Here, critical thinking referred to the capacity to recognize and overcome social injustice (e.g., Burbules and Berk 1999; Giroux 1994; McLaren 1994). In particular the critical pedagogical point of view emphasized critical and democratic citizenship as an educational goal and focused on transforming society (Ten Dam and Volman 2004).

Three debates that characterized the literature on critical thinking of the 1980s and 1990s are still relevant if we consider critical thinking as a citizenship competence. First, it was discussed whether critical thinking must be understood as a set of general cognitive skills and dispositions (e.g., Ennis 1989; Paul 1992; Siegel 1992) or as skills and dispositions that vary in character across different domains (e.g., McPeck 1981; 1990). Second, the “rationalistic” foundations of the epistemology of critical thinking were called into question. It was argued that by focusing on logical thinking, critical thinking excluded other sources of evidence or forms of verification (experience, emotion, feeling) (Burbules and Berk 1999), and was thus gender, class, and culturally biased (Belenky, Clinchy, Goldberger, and Tarule 1986). Last, critical pedagogues argued that critical thinking took insufficient account of the social context (Giroux 1994). From the perspective of teaching critical thinking as a citizenship competence it was considered essential that a curriculum for critical thinking pays attention to the political effects of argumentation and reasoning.

In the literature several instructional strategies for enhancing critical thinking have been proposed and sometimes empirically studied, acknowledging the first issue mentioned above but tending to ignore the other two. These proposals vary from arguments on the starting points for critical thinking to complete instructional designs, and detailed descriptions of teaching strategies or characteristics of learning environments, empirically evaluated or not.

Guidelines for teaching concern ways in which teachers can motivate, activate, and instruct their students to argue logically and solve heuristic problems. Characteristics of instruction that are assumed to enhance critical thinking are promoting active learning; a problem-based curriculum; and stimulating interaction between students. In empirical research in which instructional variables are retrospectively correlated with students' critical thinking skills the importance of a large number of these characteristics is confirmed. This especially holds true for characteristics pertaining to stimulating the active involvement and contributions of students in the learning process, such as an elaborate interaction between students and between students and teacher, having students present their insights or formulate these in an essay exam (instead of testing through multiple choice exams) (see the studies reviewed in Tsui 1999). Another interesting finding is that students in higher education who follow a course of study that requires the integration of ideas and courses across disciplines, and students who follow courses with an interdisciplinary approach, tend to show greater gains in critical thinking than other students (Tsui 1999) (studies reviewed in Terenzini, Springer, Pascarella, and Nora 1995).

Whilst some scholars presuppose that critical thinking is the same across disciplines, and can therefore be learned in specially designed courses (e.g., Ennis 1989; Paul 1992), most argue that generalizable thinking skills do not exist, and thus critical thinking skills cannot be learned in isolation from a subject (Brown 1997; McPeck 1981; 1990). It proves impossible to demonstrate the effectiveness of courses or programs especially devised to improve critical thinking (see the studies reviewed in Tsui 1999). This may be interpreted as supporting the subject-specificity position, thus as arguing in favor of integrating critical thinking in the regular curriculum.

Moreover, the importance of using real-life problems is also often stressed. Many researchers agree that learning how to think critically should take place in the context of meaningful, rich, domain-specific subject matter (e.g., Angeli and Valanides 2009). In particular Brown (1997) has voiced the opinion that critical thinking must be taught in the context of specific subject matter in such a way that transfer to other domains is possible. She argued that we cannot expect children to progress in the development of thinking unless we give them something meaningful to think about. On the one hand this is supposed to be motivating and stimulates students' active involvement. On the other hand real-life problems are precisely the kind of ill-defined, messy, complex problems for which critical thinking is needed anyway (see also Halpern 1998; Kennedy, Fisher, and Ennis 1991). Little guidance was given, however, on how to enhance students' critical thinking competences in a meaningful, subject-oriented way.

Since the beginning of the century socio-constructivist and sociocultural perspectives on education have gained influence and pedagogical approaches

have been elaborated, among others by Brown herself, that provided such guidance. It has been argued that, if education is to further the critical competence of students, learning contexts must be chosen that appeal to students and that invite them to engage in critical agency and to reflect upon it. Recently, the concept of communities of learners has been proposed as an instructional format that fits these criteria.

Community of learners as a way of enhancing critical thinking

Many educationalists have built upon the “community of learners” work of Ann Brown and Joe Campione (1990; 1994) (see, e.g., *Journal of Curriculum Studies*, 36 [2], a special issue devoted to the topic). Their model “Fostering a community of learners” (FCL), is aimed at developing deep understanding and critical thinking skills. Students are engaged in a recurring research cycle that involves the following steps: (1) the conduct of research in small groups on central topics for a subject area with each student specializing in a particular subtopic; (2) the sharing of what has been learned in the small group and with the other groups; this can be supported with instructional methods based upon the principles of cooperative learning and include reciprocal learning and the jigsaw method; and finally (3) work on a new “consequential task” that requires the students to combine their individual learning in such a manner that all class members come to a deeper understanding of both the main topic and subtopics. The work of Bereiter and Scardamalia on knowledge-building communities (Bereiter and Scardamalia 1987; Scardamalia and Bereiter 1991) has also been a source of inspiration for enhancing critical thinking. The basic principle is that learners should be engaged in meaningful learning and problem solving while working on authentic problems.

Both models of fostering critical thinking in communities of learners can be considered socio-constructivist approaches. They share a number of characteristics. First and foremost, critical thinking is learned in a meaningful setting (i.e., a context that requires the solution of “real” problems). Students are asked, for example, to study the problem of water pollution in different places within the city of Amsterdam (Beishuizen 2008). The problems to be solved should be (1) related to the subject matter, (2) engaging and thus concern “genuine issues” and have a clear purpose for students, and (3) usually require research-like activities.

Second, critical thinking is enhanced by a social setting in the sense of collaboration between students. Collaboration presumably activates students due to the need to interact with each other, increases the availability of resources since knowledge is distributed among the participants, and ideally results in better arguments and solutions due to the interaction between participants.

Third, critical thinking should be embedded in the basic concepts underlying particular disciplines. In communities of learners based upon the work of Brown, for example, the aim is for students to work in such a manner that they develop a critical understanding of so-called big ideas (e.g., evolution for the discipline of biology) (Campione, Shapiro, and Brown 1995).

Authors working from a socio-constructivist perspective basically argue that students working in a community of learners tend to develop a deep level of subject understanding, a critical attitude, and critical thinking skills as a result of solving real problems in a collaborative manner (see, e.g., Beishuizen 2008). More specifically, in socio-constructivist theories of learning, knowledge is assumed to be something that emerges during a process of active construction and is promoted by interaction.

As might be expected, the realization of an effective community of learners from such a perspective requires careful organization and design of the learning environment and also careful guidance of the learning process. That is, the learning environment associated with an effective community of learners is not a roughly organized environment in which learners simply do some things together but, rather, a setting with often rather detailed instructional formats with a focus on critical thinking and knowledge building (see Edwards 2005).

With regard to the concept of “community” itself, the multi-voicedness of the group is emphasized and valued as this stimulates exchange of viewpoints and critical reflection. The different voices are predominantly elaborated in terms of cognitive abilities. It is argued that students can profit most from each other’s knowledge and skills when the knowledge and skills of the class are diverse (Brown and Campione 1994).

Community of learners as a way of enhancing critical citizenship

In our view, critical thinking requires not only higher-order thinking skills, but also a caring attitude, empathy, and commitment (see Noddings 1992). To prepare students for this, instructional designs are needed that do not capitalize on arguing (as in a psychological point of view), nor on the cognitive activity of analyzing social problems (as in critical pedagogy), but contribute to the ability as well as the readiness of students to participate independently in a meaningful and critical way in concrete social practices and activities.

While considerable similarities can be detected with the line of thought outlined above, there are authors who accentuate the importance of learning to participate in their elaboration of community of learners. Vygotskian approaches such as those of Lave and Wenger (1991), Wells (1999), and Rogoff (Gutiérrez and Rogoff 2003; Rogoff, Paradise, Mejia Arauz, Correa-Chávez, and Angelillo 2003) can be mentioned in this connection. In such sociocultural approaches to learning to think critically the notion of “community” is inherent in the

definitions of both knowledge and knowing. Exemplary is the view of Wells who construes “knowing” as “the intentional activity of individuals who, as members of a community, make use of and produce representations in the collaborative attempts to better understand and transform their shared world” (1999, 76). Compared to the socio-constructivist approaches discussed above, the conceptualization of learning communities from a sociocultural perspective entails a different set of emphases.

A meaningful setting is—just as for socio-constructivist communities of learners—a key characteristic of sociocultural communities of learners as well. However, when viewed from a sociocultural perspective, a meaningful setting does not entail a specific problem-solving context but, rather, participation in “social practices” in the sense of historically and culturally evolved constellations of human activities that have a particular value and meaning within society (e.g., business, art, care). “Meaningfulness” is, also a two-sided concept, the other side being that participation in such practices is experienced as personally meaningful by students themselves (see Leont’ev according to Van Oers 2009; Van Oers and Wardekker 1999). In a university context, activities organized in such a manner that students can learn something from them are of primary concern (e.g., by taking part in the organization of a symposium, by being a member of the editorial board of a journal, or by joining a research team). By participating in such practices students explore different meaningful roles, such as the role of an organizer, an editor, a researcher, or a lawyer (see Wells 1999). That is, as “legitimate peripheral participants” (Lave and Wenger 1991), students can assume a variety of roles in social practices. Essential in any role is that students’ own questions are used as a starting point for learning.

The social setting does not, in a sociocultural approach to communities of learners, refer primarily to the group of students involved in the collaboration but to the activity itself. The social setting encompasses knowledge, concepts, instruments (tools), and so forth. The resources that the students call upon are themselves social products and are meaningful within the activities of the community (Rogoff, Goodman Turkanis, and Bartlett 2001). Students can master these tools by putting them to use within the relevant setting and with an image of the goal to be achieved (“prolepsis”), for example, using guidelines for interviews as tools in a qualitative research project. In the instructional format for such a social setting, the teacher or other more capable adult or peer plays a critical role in the support of the participation of students. That is, the support for learners can be explicitly provided in the form of “scaffolding,” which entails helping students to perform tasks that they are not yet capable of performing on their own or—in Vygotskian terms—perform tasks within their “zone of proximal development” (Van de Pol, Volman, and Beishuizen 2010). While the social situations that students participate in are “pre-arranged” to

make them suitable for learning objectives, the instructional format is generally less fixed than in socio-constructivist approaches.

When advocates of a sociocultural approach to communities of learners claim that such communities enhance learning, they mean the quality of the participation of students in social practices. This includes, but is not restricted to, disciplinary practices. Learning involves becoming a member of particular communities (Lave and Wenger 1991; Wells 1999). Student learning is, therefore, not so much aimed at the building of a shared knowledge base that encompasses “big ideas” but, rather, at a different type of outcome. The outcome might be, for example, being able to run a store with one’s own products, to publish a journal, or to organize a symposium. The acquisition of knowledge and skills is perceived as a “by-product” of these activities. Not only do knowledge and skills undergo development but also the manner in which the student participates in an activity and—in this connection—the identity of the student, which is the motor for subsequent learning processes. Learning is identity building (Wells 1999). “School concepts,” or what Vygotsky calls “scientific concepts,” play a role in this in a manner similar to how “big ideas” function as “tools for thinking.” Such concepts can be distinguished from the “everyday concepts” that children spontaneously acquire. Some authors further emphasize the fact that the participants in an activity can and should learn to be critical participants. The focus of learning should be on transformation (Edwards 2005; Engeström 1999). Thus not only are the rules for participation in an activity important but also, in particular, the degree of freedom associated with students’ participation in the activity (Van Oers 2010).

Viewed from a sociocultural perspective, the reasoning about the manner in which a community of learners fosters critical thinking (i.e., the theory of learning) differs from that associated with a socio-constructivist perspective. The ideas about what exactly the outcomes of learning should be also clearly differ. A community of learners from a sociocultural perspective is assumed to enhance critical thinking due to the fundamental intertwining of individual development and the cultural context:

- Students participate in a social setting, that in itself has historically and culturally evolved, and that requires particular knowledge and skills (i.e., the requirements of the activity drives students’ development).
- Students actively negotiate the meaning of cultural tools, which are thus acquired (“appropriated”) in such a manner. Cultural tools are not only acquired by students, however, but can also be transformed; this constitutes the dynamic character of social practices.

Just like in a socio-constructivist community of learners, the collaboration must be carefully structured in order to promote critical thinking in the sense

of critical *participation*, and this requires well-thought-out learning environments and guidance by competent adults. Wells has described some examples of such communities of inquiry. Van Oers (2010) further shows how communities of learners can be designed in such a manner that student activities retain an element of play. The rules for communication inside classrooms and some recommendations for the role of teachers in “dialogic teaching” have been outlined by Mercer (2005).

Also within sociocultural approaches of communities of learners the multi-voicedness of the community is recognized. On the one hand, the social practices that are represented in schools are neither homogeneous nor neutral. All learning content refers to social positions and has particular cultural meanings. On the other hand, learners themselves belong to different social groups. As a consequence, they relate differently to learning content and to learning itself. Social identities are thus developed in “learning through participation in social practices” (Volman and Ten Dam 2007). From a sociocultural approach of communities of learners, however, not much attention has been given until now to the question of how differences between students can function as a potential for learning to participate critically.

Conclusion

In this contribution we departed from the premise that critical thinking is an essential competence required by citizens to participate in a modern, democratic society; critical thinking enables citizens to make their own contribution to society in a critical and aware manner. We discussed the concept of “community of learners” as a promising pedagogical approach for promoting critical thinking in education, as it has the potential to overcome the limitations of the “instrumental” and “higher-order skill” perspectives of critical thinking. In particular the sociocultural interpretation of “community of learners” focuses on critical agency. The concept of “participation” is a key concept here. In the participation approach the educational objective must not be formulated exclusively in terms of critical thinking but rather in terms of acquiring the competence to participate critically in the communities and social practices to which a person belongs. This competence includes knowledge and skills and the willingness to use these (agency).

The learning process for this “critical competence” occurs by being actively involved in meaningful social practices. From this perspective, the objective of critical thinking can never be realized by means of special “programs for critical thinking” in which the relevant skills are taught as technical skills. If learning must be meaningful to the individual in order to contribute to identity development (Wardekker 1998), it is essential that connections are made between the learning process and the current and future situation(s) in which

students can and want to apply the knowledge and skills they have acquired (see, e.g., Lave and Wenger 1991).

This does not mean that the instructional designs and procedures discussed in part II, “Teaching Critical Thinking,” are of no value at all. Even though they are based on different theoretical frameworks, they provide useful guidelines for promoting “logical thinking” (philosophical approach) or “higher-order thinking skills” (psychological approach). These guidelines can be included in elaborations of instructional strategies to be used in the context of communities of learners.

In our view, the idea of a community of learners provides ways to shape education in such a manner that it not only contributes to the pedagogical goals of achieving a deep level of subject understanding and critical thinking skills but also promotes a willingness and capacity to act in diverse social practices on the basis of these competences. This is particularly relevant at a time when economic profit is given priority over teaching students how to think critically and introducing them to complex global questions, as Martha Nussbaum argues in her pamphlet *Not for Profit* (2010). This also transcends a mere theoretical discussion. The issue at stake is how to strengthen the role of higher education in contributing to the development of “educated citizenship.” How can education serve as a solid basis for a democratic society and involve students in meaningful educational practices aimed at enhancing the quality of their participation in society?

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