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Klafki's critical-constructive Didaktik and the epistemology of critical thinking

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ABSTRACT

What can educators working to develop critical thinking (CT) in their classrooms gain from engaging with the German/Scandinavian tradition of Bildung-centred Didaktik? This article takes up the challenge of how to develop an epistemology of CT that is relational and contextual and gives students the possibility of engaging in ethical debates about social justice, as called for by critical pedagogues such as Lim (2011, 2015). The backdrop is an increasing focus on CT as a prominent educational goal in the Organisation for Economic Co-operation and Development and beyond, a development that makes it important to clarify the epistemological basis for how CT can be developed in schools and the ethical foundations and implications of the different approaches in the field. The article compares the epistemology of Matthew Lipman's seminal work on CT, *Thinking in Education* (2003), with Wolfgang Klafki's critical-constructive Didaktik. To highlight and critically examine the *relations* on which the two approaches are built, a combination of Aristotelian epistemology and the 'Didaktik triangle' is used. The analysis shows there are valuable insights to be gained from Klafki's theory to further develop an epistemology of CT.

KEYWORDS

Critical thinking; epistemology; Bildung; Didaktik; Klafki

1. Introduction

'Critical thinking' (CT) has become a common buzz phrase in education worldwide. The Organisation for Economic Co-operation and Development (OECD, 2018) refers to CT as a '21st-century skill', and the Norwegian government has introduced a new definition of 'competence' that includes CT as a key element (Report to the Storting no. 28 (2015–16)). On the most basic level, the concept of CT appears uncontroversial. According to Ennis' (1985, p. 45) widely accepted definition, 'Critical thinking is reflective and reasonable thinking that is focused on deciding what to believe or do'. However, as educators look for ways to implement CT in the classroom, they are faced with questions about what it really means to think in this way and about how schools can contribute to the process.

In the English-language literature on CT, the debate has centred around whether CT should be considered a generic or subject-specific skill and whether it should be considered a mere cognitive skill or should include the disposition to act on the insights gained through the thinking process (Burbules & Berk, 1999). Also, the CT movement as a whole has come under attack from critical pedagogues who lament its failure to highlight the social and relational aspects of knowledge and thus reproduce social inequality rather than question purported hegemonic power relations in society (Apple, 2004). In a recent article, Shpeizer (2018, p. 12) argues for the promotion of CT education 'from an unexpected direction, indeed from the other side of the critical universe in the shape of the critical pedagogy school'. The call underlines the animosity that has often characterized the debate between the two schools but also points to possible potential. To Shpeizer, who

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writes from the perspective of the CT movement, this potential lies in further highlighting the action component of CT and explaining why educational programmes like his that aim to facilitate critical and independent thinking face systemic barriers that favour the status quo.

Lim (2011, 2015) can be placed on the other side of the critical spectrum but still acknowledges the value of mastering logic and argument analysis to become a critical citizen. However, he also argues that these skills are not enough unless one aspires merely to educate citizens who can participate in a limited sense as individual consumers pursuing a narrow self-interest in a 'thin' democracy (Lim, 2011, p. 797). Lim, therefore, advocates the development of an epistemology that foregrounds the social relations and connectedness of individuals, stating that:

We need to develop ways of thinking and understanding that sensitize individuals to the different lives that society consists of, as well as how these bear on their own [...] what is needed for us to think socially and morally then, is a recovery of the centrality of relations to the rationality apparatus. (p. 799)

This article explores another way of thinking about teaching and learning to enable the development of a CT epistemology that addresses the task set out by Lim, an epistemology that can be morally justified and that can explain how CT can occur in a concrete classroom setting. This way of thinking is the German/Scandinavian tradition of *Bildung-centred Didaktik* (Gundem, 1995; Gundem & Hopmann, 1998; Hopmann & Riquarts, 1995; Klafki, 2014; Westbury, Hopmann, & Riquarts, 2010). 'Didaktik' refers to the process of lesson planning, centring around the interpretation of content to facilitate meaningful encounters with content for students (Klafki, 2010). 'Bildung' refers to the overarching aim of schooling, the 'spiritual formation' of the individual (Westbury, 2010, p. 24).

The exploration of areas of mutual learning between the American tradition of curriculum—of which both the CT movement and critical pedagogy are part—and European Didaktik is not new but can be traced to an article by Hopmann and Riquarts (1995) in the *Journal of Curriculum Studies* and a conference held at the University of Oslo in 1996 (Gundem & Hopmann, 1998). A fruitful avenue for learning on the part of the American tradition was pointed out by Westbury (1998) in his contribution to the conference proceedings:

The assumptions that have traditionally dominated American understandings about how curriculum thinking and practice should be conceived have meant that the classroom curriculum has been neglected *and, in particular, the role of the teacher as an interpreter of the curriculum has not been systematically addressed.* (p. 68, italics in original)

Twenty years on, the field of curriculum studies in the US is dominated by various strands of post-modernist thinking. The 'reconceptualists' share not only an interest in exposing the hidden mechanisms of power and exclusion inherent in school curriculum but also a tendency to distance themselves from the real world of curriculum-making, which is left 'to assessment specialists, learning scientists and educational technologists who are tasked with developing academic standards, competency frameworks and high-stakes tests' (Deng, 2018, p. 697). Indeed, as Willbergh's (2015; 2016) analyses of the ongoing curricula reform in OECD countries, particularly Norway, show, the move from content-based to competency-based curricula—and the idea that democratic input into what goes on in the classrooms should not take the form of choosing content for the teachers to interpret but rather measuring and controlling what 'competencies' the students attain—is currently threatening to undermine the core tenets of Bildung-centred Didaktik, even in Scandinavia.

Of course, replacing old-fashioned curricular content with descriptions of 'competencies', such as CT, only shifts the question of making content decisions from the government to the schools and the individual teachers, thus changing their role from *interpreters* to *makers* of the curriculum. Somewhat ironically, the turn away from content-based curriculum makes the ability of teachers to select content suited to guiding students in fulfilling their educational goals even more important. In contrast to the reconceptualists, they do not have the option of retreating to the sidelines (Deng, 2018). As CT becomes increasingly prominent among the educational goals and competencies of

school systems worldwide, I believe that assessing teachers' options when trying to make sense of what their task of promoting CT entails and how they should go about fulfilling it is critical.

2. Structure of the article

In the next section, I briefly outline the theoretical framework of the article, which is based on the epistemology of Aristotle (building on the intellectual virtues of *epistêmê*, *tékhnê* and *phrónêsis*) and the 'Didaktik triangle', which highlights three basic elements present in all educational situations—content, student and teacher (Künzli, 1998). I then use these concepts as analytical tools to explore and compare Lipman's epistemological approach to CT that he lays out in his seminal work *Thinking in Education* (2003) and Klafki's (1998) critical-constructive Didaktik. Lipman (1923–2010) was a member of the CT movement and strongly advocated the development of reasoned judgement as a key educational goal (Weil, 1998). His work is analysed in this article because it combines an interest in exploring and elaborating epistemological questions about how the development of CT could take place with a practical, student-centred approach. Perhaps the clearest testament to his enduring influence on schools worldwide is the popularity of the Philosophy for Children (P4C) programme he founded 40 years ago that is currently used in 60 countries (<https://p4c.com/>).

Klafki (1927–2016) held a prominent position in the German Didaktik community (Hopmann, 1999), and his theories continue to inspire researchers within the field (e.g. Deng, 2015; Friesen, 2018; Hudson, 2002, 2003; Krüger, 2008; Willbergh, 2015, 2016). Like Lipman, Klafki's work is analysed because it combines theoretical elaboration with an awareness of and interest in the very real challenges facing teachers in the classroom. In his most acclaimed article, Klafki lays out the process of lesson preparation in five sequenced steps (Hopmann, 1999; Klafki, 2010). Following the analysis of the epistemological approaches of Lipman and Klafki, I discuss how critical-constructive Didaktik can contribute to developing a social and relational epistemology for CT.

3. Theoretical framework: Aristotle's epistemology and the Didaktik triangle

Aristotle distinguishes three distinct forms of knowledge—*epistêmê*, *tékhnê* and *phrónêsis*. *Epistêmê* refers to knowledge that corresponds to the modern scientific ideal, as expressed in the natural sciences. It is not context-specific but universal and invariable across time and space (Flyvbjerg, 2012, p. 27). The researcher is seen as removed from the object of study, and the process through which knowledge is produced is characterized by analytical rationality. Hypotheses are generated and then either refuted or sustained based on the evidence collected (Popper, 2002). Within the field of educational research, critics of this type of research view the idea that data collected in a specific context tend to be generalized and then reapplied to different contexts as problematic (Biesta, 2007). This criticism is often levelled against proponents of so-called 'evidence-based practice', research directed at providing evidence to support educational policies or practices (Kvernbekk, 2011, p. 515).

However, in Eikeland's (2007) reading of Aristotle, there is another form of *epistêmê* than the one just described. While the form of *epistêmê* that is equated with the hypothetico-deductive method is called *theôrêsis*, there is a form where the subject and object are not kept strictly apart but rather conflated, which is called *theôria*. The latter is often exemplified by the field of grammar (Wittgenstein, 1974). Here there is no distance between the subject and object, which would be a requirement for *theôrêsis*. Grammatical rules do not exist independently of people, like natural laws. Rather, they are inside the speakers as they constitute their language practice, but at the same time outside them as they regulate and provide normative criteria for this practice. The reason Aristotle sees *theôria* as a form of *epistêmê* is that it covers knowledge fields that are characterized by more or less stable patterns of recurring practice that the practitioners seek to perfectiate through the mastering of skills (Eikeland, 2007).

Tékhnê refers to practical knowledge that is contextual and goal-oriented. It is often related to the artisan or practitioner, with the question being what to do in a given situation to attain certain goals. Kvernbekk (2011, pp. 521–22) argues that the concept of evidence is not only related to truth claims—that is, the domain of *epistêmê*—but is also relevant when the question is ‘What works?’ In fact, it is the effectiveness of practice and not the truth of hypotheses that is the main concern of those educators promoting evidence-based practice (Ibid). In the context of the teaching profession, a focus on *tékhnê* (or technical knowledge) sees the teacher not as an implementer of ready-made solutions grounded in universal knowledge but as a technician utilizing his knowledge and experience to solve a specific problem or attain an objective in the most efficient way. *Tékhnê* is further characterized by ‘objectification’, as the subject *uses* an object to attain an external end. If the objects we use in this way are ‘dead’ materials (like the wood used by carpenters) this is not problematic, but treating people as objects is hardly defensible from an ethical standpoint (Kant, 1993).

With *phrónêsis*, the central concern is ethics. Therefore, phronetic research is not aimed at evaluating truth claims or measuring efficiency but is concerned with deliberations over what is the right thing to do in a given situation. Importantly—and in contrast to *tékhnê*—*phrónêsis* requires us to question the very goals we are trying to attain. For this reason, Aristotle sees *phrónêsis* as the most important form of knowledge; it is crucial to balance technical rationality (Flyvbjerg, 2012). However, this is not generally reflected in modern society where ‘scientific’ and technical knowledge seem to be the most valued (Habermas, 1966). Within *phrónêsis*, understanding the importance of context is crucial. Making ethical judgements is not something that can be done beforehand but must be done with reference to particular situations. This does not imply relativism but rather the acknowledgement of the social and historical conditions within which human action occurs. Only within such a context can phronetic claims to validity be made and scrutinized. This differs from the application of moral maxims devoid of context and, importantly, requires that prevailing power relations be taken into account (Flyvbjerg, 2012).

As the preceding paragraphs make clear, Aristotle conceives of the forms of knowledge as fundamentally *relational*, which means they rely on specific relationships between the subject and the object — between the knower and the known. This is a different conception of epistemology than the reductionist, one-dimensional and purportedly value-free understanding that has dominated modern science since the seventeenth century, where all forms knowledge are seen as essentially the same, only more or less certain (Eikeland, 2007). Because it is relational and allows for different alignments of subjects and objects, it is useful in studying ethical questions: ‘Aristotle’s different ways of knowing make relations visible that are normally kept in the dark in modern ways of thinking about knowledge, as if knowledge and ethics really were completely separate departments that could be treated independently from each other’ (Eikeland, 2007, p. 349).

Similarly, Didaktik as a ‘reflective practice’ is fundamentally concerned with educational relations (Hopmann, 1999; Ruzgar, 2018; Westbury, 2010). Therefore, the tradition is characterized by the use of models as tools to use in the process of reflecting upon these relations (Künzli, 1998). Perhaps the most basic of these is the ‘Didaktik triangle’, which highlights three elements that are always present in an educational setting—content, student and teacher—and which allows us to theorize the relationships between these elements (see Figure 1). In the following sections, I analyse epistemologically the relationships between student and content, between teacher and content and between teacher and student within the CT movement, as exemplified by Lipman (2003) and within Klafki’s (2014) critical-constructive Didaktik.

4. Lipman’s Thinking in Education

The CT movement sprang out of US philosophy departments in the second half of the twentieth century (Shpeizer, 2018). Its roots can be traced to classical Greek philosophy with the ideals of Socrates and Plato and to the educational ideals of John Dewey (1997) and his teacher Charles S. Pierce, founder of the philosophical school of pragmatism (Lipman, 2003, p. 34). By contrasting

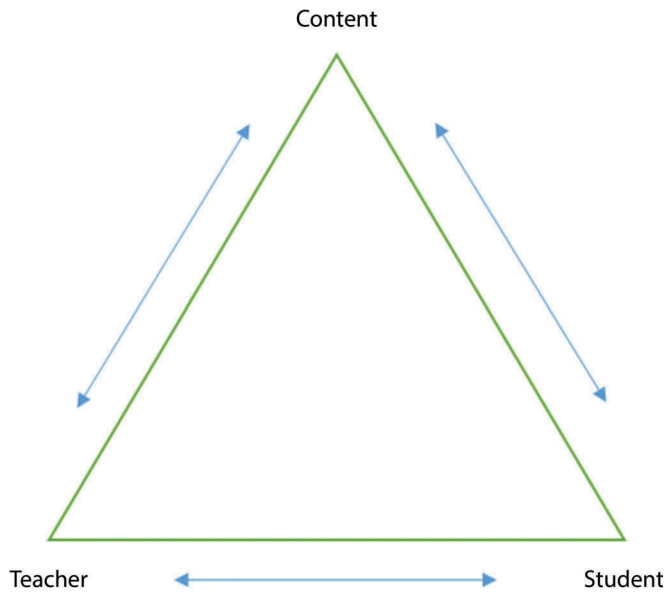


Figure 1. Didaktik triangle (Künzli, 1998).

the 'reflective paradigm' with the 'standard paradigm' of traditional schooling, thus reflecting the ambition to overcome a tradition of teaching and learning focusing on the passive transmission of knowledge, Lipman (2003) articulates the core tenet of the movement. The educational ideal of the reflective paradigm is a 'community of inquiry', where questions are posed and answers sought through a logical and structured dialogue. In advocating the development of CT as a main task for education, the CT movement is at the same time critical of the 'traditional' way of teaching. According to Lipman (2003), dominant ideas in the standard paradigm of schooling include education as the transmission of knowledge, a view of knowledge as unambiguous, the distribution of knowledge into mutually exclusive disciplines, the authoritative role of the teacher and equating knowledge with information.

4.1. The relationship between student and content in Thinking in Education

While acknowledging that students are always dealing with content, when it comes to the question of how the aim is of critically thinking students to be achieved, Lipman's (2003) primary focus is on the *method* they use to approach the content:

A dialogue that tries to conform to logic, it moves forward indirectly like a boat tacking into the wind, but in the process, its progress comes to resemble that of thinking itself. Consequently, when this process is internalized or introjected by the participants, they come to think in *moves* that resemble its *procedures*. They come to think as the process thinks. (p. 21, italics in original).

What is important to note is how the activity in the classroom—as long as it follows the right procedures—is seen as transforming the way the individual child thinks. The transformative potential is inherent in the process of CT, but at the same time, the method becomes constitutive of the critically thinking subject. The conflation of the subject and the object is a typical feature of the *theôria* variant of *epistêmê*. Furthermore, CT understood in this way is autotelic; the aims of the process are built into it. What distinguishes a novice critical thinker from a proficient one is not that

they are doing something qualitatively different but rather is how close they are to realizing the ideal inherent in the procedure (Eikeland, 2007).

If CT is a process and an aim that is confined within itself, where does this leave subject content? According to Lipman (2003), there are 'pure' forms of thinking that are either procedural (metacognitive thinking about the method) or substantive (about content). What takes place in situations where the thinking is not 'pure' is the integration of these two forms:

It must be acknowledged that content is indispensable for the fostering of good judgment. Thus, if we want students to have good historical judgment, we will have to expose them to history; if we want them to have good literary judgment, we will have to expose them to literature; and if we want them to have good ecological judgment, we will have to expose them to ecology. But here precisely is where the mode of teaching—the mode of critical educational intervention—makes such a difference. If all we want is for the students to learn history or literature or ecology, little improvement in judgment can be expected. But if we understand that we are teaching them history critically in order to improve their historical judgment and not merely to provide them with grounds for patriotism, then content assumes its rightful place alongside method, neither inferior to it nor superior to it. (Lipman, 2003, p. 48).

While Lipman claims that content and method are placed on an equal footing, it is clear that it is the method of critical inquiry that enjoys a primary position, as it is the means to acquiring judgement. 'Historical judgment' is seen as a sub-skill of judgment and not really as an aspect of the content itself. Presumably, when mastering historical judgment after having been 'exposed' to history, this skill can be put to work in making judgements about any historical questions. That is, it is generic.

It is possible to read Lipman as understanding the relationship between student and content as a technical one, whereby the content is used as an instrument to achieve the external goal of judgment. In that case, we are moving from *theôria* to *tékhnê* (Flyvbjerg, 2012). Indeed, the close relationship between the CT movement and the school of informal logic may help to explain why this is so. They both recognize the insufficiency of the purely deductive, abstract reasoning of formal logic for making judgments in real-life situations (Shpeizer, 2018). However, the context is seen as a challenge that can be overcome by taking sufficient account of how it might affect the meanings of statements and by being sensitive to the logical fallacies that can occur in real-life situations (Lipman, 2003). This broadening of the concept clearly implies an element of *tékhnê*. The goal remains the assessment of claims to reasonableness, that is, it is instrumental. But reaching this goal implies not merely the application of formal procedures but the technical skills of critical thinkers as craftsmen in a concrete, variable and context-dependent setting (Flyvbjerg, 2012, p. 28) who apply their tool of inquiry to various pieces of content to produce sound judgments.

However, bringing in content could also be seen as a move from *theôria* to *phrônêsis*. That would be the case if the standards by which to make judgements could no longer be seen as intrinsic to the process itself or as pre-defined but needing clarification in relation to the particular situation/content. The concept of 'judgment' would then take on another meaning, and the analogy to grammar would not suffice. Making a judgment in a situation where ethical considerations are at stake is different from judging whether a phrase conforms to grammatical standards. Whereas grammatical correctness can be settled within the confines of grammar itself, the ethical judgment inherent in *phrônêsis* directs us to focus on 'what is variable, on what cannot be encapsulated by universal rules, on specific cases. It requires an interaction between the general and the concrete; it requires consideration, judgement and choice' (Flyvbjerg, 2012, p. 30).

Indeed, Lipman (2003) acknowledges the difference between the different areas of inquiry when it comes to making judgments about various issues:

Many aspects of the world—particularly those that deal with human conduct—cannot be dealt with or formulated with the precision characteristic of science. Approximations are needed, and we have to develop a sense of the appropriate rather than expect our thought and the shape of things to correspond exactly [...]. This is particularly true in ethical disputes, for more and more we discover that the contested issues in these

cases cannot be justly resolved and that we must make compromises and employ trade-offs that allow each of the parties to save face and retain self-respect. (pp. 21–22)

However, while Lipman alludes to the need to develop a sense of the ‘appropriate’, he does not see this as pursuing a qualitatively different kind of knowledge. The aspects of the world that cannot be made subject to the ‘precision characteristic of science’ must make do with ‘approximations’. Therefore, the (natural) scientific model based on *epistêmê* is taken as the standard that the humanities and social sciences should aspire to and try to emulate, however imperfect. Relegating judgments within these fields to approximations of the scientific model rather than representing qualitatively different forms of knowledge allows for a unity that can support concepts such as ‘historical judgment’ and ‘mathematical judgment’ as sub-skills of judgment. However, as discussed below, subsuming all critical inquiry under a methodology based on *epistêmê* is not without problems.

4.2. *The relationship between teacher and content in Thinking in Education*

The primacy put on the method of inquiry as a vehicle for transforming students into critical thinkers also has a bearing on the role of the teacher in relation to the educational content:

Teachers may ask questions and students may answer them without either party feeling the least twinge of doubt or puzzlement and with hardly any real thinking taking place, because the process is mechanical and contrived. On the other hand, there are times when inquiry begins because what has been encountered—some aberration, some discrepancy, something that defies being taken for granted—captures our interest and demands our reflection and investigation. (Lipman, 2003, p. 21)

It is far from irrelevant to Lipman what content the teacher picks for his lesson; if the students are not challenged by being presented with questions that have no clear answers, the method of inquiry will have little effect. The role of the content seems to be to feed the process by which CT can be developed and judgments be made. What is interesting, however, is how the teachers themselves are to make judgments about what is problematic in the curriculum. Is this a process that can be understood by the teacher as internal to the critical analysis in relation to logical tensions in a given curriculum? If so, the relationship between the subject and the object can be seen as conflated; the development of teacher proficiency in identifying discrepancies in the curriculum is already inherent in the school subject. A trained teacher will be better at identifying problems than a novice one, but they will be doing the same thing according to the same criteria. And the discrepancies are there to be identified, independent of the actual teachers that are striving to find them. Such a relationship is one of *theôria* (Eikeland, 2007).

However, if we see the question of what is problematic not just as a matter of internal inconsistencies in the curriculum but as something that would need to be established in relation to a wider context, we move from *theôria* to *phrônêsis*. The relationship between the teacher and the content would then not just be one of critical reflection on the part of the individual teacher; the ethical standards on which to base the choice of content would need to be established through deliberation within a professional community (Eikeland, 2007). The ‘problematic’ aspects of the curriculum would then be determined collectively as discrepancies not within the subject matter itself but between the subject matter and collective interpretations of values and interests in society. This would require asking questions such as ‘Where are we going?’ and ‘Is this development desirable?’ and ‘What, if anything should be done about it?’ (Flyvbjerg, 2012, p. 33).

Such a *phronetic* approach to content selection would also direct the attention of the teacher to questions of power relations. For example, ‘Who gains and who loses, and by which mechanisms of power?’ (Flyvbjerg, 2012). Lipman does not take this up, and the issue is generally ignored in the CT movement (Shpeizer, 2018). Content is not understood as constituted within power relations, which as we will see is a major difference between the CT movement and critical-constructive Didaktik. In *Thinking in Education*, being critical of the educational value of content is understood as

applying logical skills in order to identify content that can set the process of critical inquiry in motion.

4.3. *The relationship between teacher and student in Thinking in Education*

As mentioned, the classroom as a community of inquiry represents the educational ideal of the CT movement. It is through the adaptation and internalization of the methods and principles governing this community that students are to become critical thinkers. Having looked at the role of the teacher in critically selecting content to spur the process, I now look more closely at the relationship between teacher and student in Lipman's approach.

A technical approach to this relationship would imply seeing the teacher as a craftsman employing certain methods to achieve a given end (the critical student). As an instance of *tékhnê*, posing challenging questions that engage the students to think critically can be seen as an intervention in a process that would otherwise not have taken place (Eikeland, 2007). However, as we saw when we looked at the relationship between student and content, to Lipman the transformative is a quality of the method itself. If the teacher is in fact the one who 'moulds' the critical student, this would not hold. Importantly, however, the teacher does not remain external to the community of inquiry. Quite the opposite, the teacher takes a place *within* the community alongside the students (Lipman, 2003). This means we no longer have a technical relationship but one that can be characterized as *praxis*. Aristotle distinguishes between two forms of *praxis*; the first is about the learning of skills through the deductive articulation of emerging insights in dialogue, and the second is about ethical deliberation connected to *phrónêsis* (Eikeland, 2007). Lipman's understanding of the community of inquiry seems to be very close to the first form of *praxis*. The teacher takes his place as a proficient member of the *praxis* community but without a qualitatively different or privileged position than the other members. Again, the comparison to grammar helps illustrate the relationship:

Grammar coordinates aspects of our practice, and all language users—the practitioners—have the same relationship to grammar. We may be novices or experts in using the language and in articulating the common forms. But as practitioners, we have grammar in common, and we relate to the grammar of our spoken language as equals. (Eikeland, 2007, p. 351)

Understanding the teacher as part of the community of inquiry enables us to maintain the view of this community as *a praxis* that requires the absence of instruments and tools that can be formally distinguished from the aims of the activity. However, as we have seen, the aims are contained within the activity itself, which means we are dealing with the *theôria* form of *epistêmê* and not *phrónêsis*, which would require ethical deliberation about the aims of the process, including taking account of power relations (Flyvbjerg, 2012). Rather, the teacher and students engage as peers in a common quest to perfect their mastery of the method, moving as a collective—a community of inquiry—towards developing the skills and capacity to make increasingly rational judgments.

4.4. *Summary*

In summary, becoming 'critical' is understood by Lipman as becoming able to assess information in a certain way, not taking information at face value but evaluating it according to standards for CT. These standards are transmitted to students by way of methodology; they are inherent in the process of logical inquiry. That is, the process is understood as *theôria* and thus *epistêmê*. On one hand, the role of the teacher is to take part in the community of inquiry as an equal albeit more proficient member and on the other hand to select the content that does not provide clear-cut answers but leaves room for reflection. Content thus takes on a secondary position as material subject to judgment by the students but not contributing to their CT in ways other than increasing the scope of subjects the students can make judgments about. The process is universal and the

skills generic, and the subject matter becomes something that must be selected by the teachers and dealt with by the students according to a pragmatic, instrumental rationality.

5. Critical-constructive Didaktik

The other approach to CT that I investigate can be seen as a fusion of two intellectual traditions that both originate in Germany. The first is the educational tradition of *Bildung*, which emerged in its modern form as an educational ideal during the second half of the eighteenth century as part of the Enlightenment (Willbergh, 2015). The other is the more recent tradition of critical theory that originated with the Frankfurt School in the 1930s (Hanks, 2011).

The classical theory of *Bildung* was characterized by an emphasis on the individual person as a being with the capability of free and reasoned self-government (Klafki, 2014). Therefore, from the outset, *Bildung* harboured a critique of the societal institutions that were claiming power and legitimacy based on non-rational or pre-modern grounds, such as the church and the nobility. Classical *Bildung* was an educational theory for the bourgeoisie, a progressive force during the Enlightenment. However, from the mid-nineteenth century, the bourgeoisie for the large part ceased to be progressive, and therefore *Bildung* became an elitist theory whereby the acquisition of certain content knowledge signified a superior social position (Klafki, 2014, p. 63). In a parallel development, and closely related to the development of modern science, another form of *Bildung* developed. This was characterized by a belief in the objectivity of knowledge and emphasized knowledge acquisition through memorizing and drilling. Klafki (2014) groups these two traditions into the category of ‘material *Bildung*’ and is critical of what he sees as neglect of the student or the ‘subjective’ side of *Bildung* in both traditions.

Clearly, there is a parallel between Klafki’s criticism of material *Bildung* and Lipman’s criticism of the standard paradigm of teaching. However, what Lipman offers as the solution—a recourse to philosophical and scientific methods—Klafki is critical of. Downgrading content, the ‘material’ side of *Bildung*, to being secondary is equally as problematic as disregarding the ‘subjective’ side (Klafki, 2014). To better understand how and why they differ, let us consider how Klafki sees the epistemological relationship between student and content.

5.1. The relationship between student and content in the critical-constructive Didaktik

Whereas Lipman understands the method of logical inquiry as the vehicle through which CT is to be developed, Klafki’s starting point is the *content* the students are to engage with. He makes a distinction between the content itself as information about the world and educational content, that is, content that has become meaningful to the student (Klafki, 2014). The educational content is, therefore, the mediator between the world itself and the student, and the process of *Bildung* is understood as the dialectical process that occurs when the world becomes ‘open’ to the student and the student ‘open’ to the world (Klafki, 2014, p. 120). Thus, a certain relationship between the subject and the object is created as a reflective ‘dialogue’ between the individual and the external world. How does this compare to the relationship between the student and the method of inquiry in Lipman’s approach?

A key difference is as follows. For Lipman (2003), teaching fledgling critical thinkers the method of inquiry is seen as developing in them an ability to achieve a more objective understanding of the world. For Klafki (2014), the key question is what examples can help ‘unlock’ the world to make it accessible to the individual student. This connection between the subject and the object is crucial because it is what allows the student to become an agent in his own right. In one sense, this means that content takes on a somewhat similar function as the method does in Lipman’s community of inquiry. However, because the content is seen as having a subjective side, it invites a view of knowledge as not static but rather constructed and, importantly, changeable. What we see here is the dialectical nature of *Bildung*-centred Didaktik, building on a hermeneutic approach to knowledge. The central proposition of hermeneutics is that ‘the social world must be understood from within, rather than explained from without’ (Hollis, 2002, p. 17). While not denying the existence of an objective reality outside the individual, Klafki directs our focus

to the question of how this reality can appear *meaningful* to the individual. Making sense of this reality is a necessary condition to achieve Bildung, but it is not enough. The student must also understand and experience as meaningful the possibilities for action opened up by the new insights and the responsibility this entails (Klafki, 2014).

As we have seen, Lipman (2003) subsumes content under the scientific ideal of *epistémê* as something that can be studied as external, invariable and context-independent (Eikeland, 2007). Academic subjects not well suited to be studied in this way must make do with approximations of the scientific ideal. By basing his theory on hermeneutics, Klafki understands all knowledge as situated in a historical and social context, which is what gives it meaning. Therefore, the way it is perceived by students will be variable and contextual. The critical-constructive Didaktik, therefore, directs us towards the meanings students create when encountering educational content in a specific context.

Attention to context is a key feature of *phrónêsis*. However, *phrónêsis* also implies ethical deliberation. How is this reflected in Klafki's theory? At this point, it is necessary to consider the influence of critical theory on Klafki's thinking. Habermas (1966) is critical of both positivism and hermeneutics, as neither take sufficient account of the relationship between knowledge and power. Critical theory, which is associated with the programme of the Frankfurt school to which Habermas belongs, directs our focus towards these relations, thus offering a way for us to make them explicit and open to deliberation:

Instead of seeking to develop ideas about the universal, invariant regularities and fixed patterns in social relationships and processes, the members of the [Frankfurt] school perceived the task of social science as being to clarify the relationship between apparently given, empirical social conditions and the historical and social contexts from which they developed and within which they are recreated and—with time—changed. (Alvesson & Sköldberg, 2018, p. 181)

By incorporating the programme of the Frankfurt school into his theory, Klafki (2010) seeks to revive the progressive thrust of Bildung. To Habermas (1966, p. 293), hermeneutics leads to historicism if it does not take power relations into account: 'It seems as if the interpreter simply places himself within the horizon of the world or language from which a given historical fact derives its meaning', and in doing so neglecting to 'account for the prior understanding of the interpreter, which is inherent in his vantage point and through which interpretative knowledge is always communicated' (Ibid). Klafki (2014) thus infuses his Didaktik with a critical focus on the structural barriers that work against a more just society. We see here that the relationship between the subject and the object in critical-constructive Didaktik is one that is both contextual and normative, as the context is based on certain power relations. Thus, it calls for the sensitivity to context and normative focus that is characteristic of *phrónêsis* (Flyvbjerg, 2012).

5.2. The relationship between teacher and content in the critical-constructive Didaktik

While to Lipman the relationship between teacher and content is largely a technical one, it is seen in a very different way in the critical-constructive Didaktik. Here, the teacher cannot simply look for logical discrepancies in the curriculum to find content that can be used to set the process of logical inquiry in motion. Rather, the teacher must consider the prospective educational content in light of what possibilities it could provide for the students to achieve Bildung. In line with the critical element of his theory, Klafki (2014) defines Bildung as the process of achieving the threefold aim of self-determination, co-determination and the ability to have solidarity with others in their quest for their rights.

Considering the potential for Bildung in any given content requires that the teacher takes into account both objective and subjective aspects, i.e. what aspects of the world it could exemplify and to what extent it could be perceived as meaningful by the student (Klafki, 2014). While the process of selecting content is different from the one we saw when reviewing Lipman's approach, why not also regard Klafki's approach as a version of *tékhnê*? Establishing (external) aims and devising content to reach these appears to be an instrumental process. However, Klafki (2014) strongly refutes this assumption:

The thesis must in no way be perceived in such a way that one may make decisions within the other dimensions [of Didaktik] on the basis of decisions regarding aims [...] These decisions must—according to the opinion presented here—through the use of discursively developed arguments, that in principle could be agreed by consensus, or at least are worthy of discussion, primarily be justified by reference to [...] the development of the abilities of self-determination, co-determination and solidarity. Such a way to argue takes the character of interpretation on the basis of the primary aims. But it is something very different than deduction. (p. 145, author's translation)

As is clear from the quote, the process of content selection cannot be fully understood based on the instrumental rationality of *tékhnê* or deduction associated with *epistêmê* (Eikeland, 2007). Rather, given the need for interpretation and deliberative justification of the selection in relation to the normative criteria of Bildung, the process bears the characteristics of *phrônêsis* (Flyvbjerg, 2012).

There is another way in which the relationship between teacher and content becomes relevant to Klafki. As students cannot escape their context and approach the content from an objective vantage point, so teachers find themselves in specific contexts where power relations are prevalent, affecting among other things how knowledge is understood and valued. This calls for a reflective, critical attitude on the part of the teachers regarding the power relations within the school system: 'the relative independence of the schools and of teaching must take place within societal relations and be critically justified with relation to these' (Klafki, 2014, p. 136, author's translation). In line with the phronetic approach, power is placed at the centre of the analysis, as Klafki directs the attention of the teacher to the elements that both regulate and constitute the framework of teaching and provide important sources of content—state curricula, evaluation criteria, schoolbooks, etc. A critical analysis of how societal conditions and power relations manifest themselves in these is required (Klafki, 2014). Importantly, the connections between power and knowledge are often hidden and not reflected in the schools as is also the case in society at large. Here, the role of the teacher comes to resemble that of the critical social scientist aimed at discovering 'which (if any) theoretical statements express unchangeable laws of social action, and which, though they express relations of dependence, because they are ideologically fixed, are in principle subject to change' (Habermas, 1966, p. 294). Furthermore, bearing in mind that the teacher himself is situated within a societal context, the analysis must also be self-reflective: 'The force of the preconstructed resides in the fact that being inscribed in both things and in minds, it presents itself under the cloak of the self-evident which goes unnoticed because it is by definition taken for granted' (Bourdieu & Wacquant, 1992, p. 251).

Compared to the identification of logical discrepancies in the curriculum called for by Lipman to spark the process of CT, to Klafki the relationship between teacher and content requires a deeper analysis. It is less a technical exercise than one that needs to deal with normative decisions and where questions about power need to be asked; for example, 'How can working with this content lead the individual and society towards emancipation from power relations that constrain their freedom?' and 'How do power relations and knowledge affect teachers and the content in schools?'

5.3. The relationship between teacher and student in the critical-constructive Didaktik

As seen, the role of the teacher in Lipman's community of inquiry is to participate in this community as an equal albeit proficient member. I used the concept of *praxis* to describe this, as the teacher in relation to the students could not be seen as a passive spectator or manipulating craftsman but rather as a 'coach'. Can the role of the teacher in relation to the students be understood in a similar way in the critical-constructive Didaktik?

Klafki understands every educational situation as unique, as each is a situated encounter between a unique individual and unique content. The role of the teacher is to facilitate this encounter using his experience and knowledge to increase the chances that it will be fruitful and result in Bildung. Lesson preparation is therefore seen as the core task of the teacher, a task that involves considering all aspects of the lesson, including questions of methodology (Klafki,

2010). While the teacher can and should draw on empirical knowledge derived from educational research that seeks to establish ‘what works’, Klafki (2014: pp. 126–134), sees it as a ‘fundamental misunderstanding’ that such research can supplant hermeneutics, given the context of meaning within which the research questions are always asked and the nature of the research objects as imbued with meaning. Lessons can therefore never be planned in such a way as to guarantee a specific outcome. This is important because it sets a clear limit for what lies within the power of the teacher to achieve. Interestingly, there is a parallel to Lipman’s method of inquiry here. Both Klafki and Lipman see the role of the teacher in relation to the student as *restrained*, avoiding the manipulation associated with *tékhnê*. The difference is that for Klafki, it is not the method but the content that takes centre stage.

While the teacher must show restraint, his role in preparing and taking part in the lesson is nonetheless important. However, the teacher’s choices cannot be seen as ‘neutral’ either in terms of what aims he seeks to achieve or in terms of the biases and attitudes he brings into the relationship with the students. If not laid bare and reflected upon, these can form what Baily et al. (2014, p. 251) call ‘social and institutional barriers to equity’. It follows from this that the teacher must be prepared to justify the choices made in the lesson planning through discourse with the students (Klafki, 2014). Such justification through the deliberation of the teacher’s normative choices is not something the teacher working on the basis of the method of inquiry would need to engage in. To be sure, Lipman (2003) is strongly in favour of thinking about the process of thinking (i.e. meta-cognition), but his approach is still very different. Remembering that the aims of the process of CT are inherent in the process itself, Lipman focuses on reflecting on how the community of inquiry works to reach the goal and not on whether the goal itself is the right one from a normative point of view. Of course, the teacher working within the CT tradition could be challenged regarding whether his choice of methods or subject contents are appropriate to help his students become better critical thinkers. However, importantly, these are methodological and not normative questions. While both deal with *praxis*, they are different forms of *praxis*, where only Klafki’s normative approach can be regarded as *phrónêsis* (Eikeland, 2007; Flyvbjerg, 2012).

5.4. Summary

The critical-constructive Didaktik is built on a hermeneutic understanding of knowledge. This means that it leads our focus towards how meaning is created by teachers and students through a dialectical relationship between the individual and the outside world. This opens a view of knowledge that is not static and that, importantly, opens a space for critical analysis of the social and historical context within which education occurs. This means that the teacher selecting the content of a lesson must undertake a critical analysis of the potential of specific content to allow students not only to experience meaning but to do so in such a way as to lead them towards *Bildung*, understood as self-determination, co-determination and solidarity (Klafki, 2014). Furthermore, this analysis must be done in relation to a specific group of students, recognizing both their unique individuality and the context within which the lesson takes place—from the individual classroom to local, national and global settings. In addition, the teacher must develop self-reflexivity and the readiness to discursively defend the choices made in the lesson planning and the power relations that are prevalent in the school system. Thus, the elements of *phrónêsis* are strong, balancing the ‘scientific’ (*epistêmê*) and technical knowledge (*tékhnê*) that is necessary to plan and execute a lesson.

6. Critical-constructive Didaktik and the epistemology of critical thinking

Having looked at how Lipman and Klafki understand the relationships between the student, the content and the teacher, it is time to consider the significance of the epistemological differences that have been identified for the critical-constructive Didaktik to contribute to the development of an epistemology of CT, as called for by Lim (2011, 2015).

The most striking difference, and the one I regard as the most significant is how Lipman and Klafki understand the content. I believe this is crucial because it fundamentally affects all the relationships I have analysed in this article. The emphasis that Lipman puts on the method of inquiry—seeing it as the vehicle for transforming students into critical thinkers—means that the subject content takes on a secondary role. While of course a necessary component of any lesson in CT, its role is largely technical, that is, to feed a process that is driven by the method. In addition to serving this function, subject content is seen as something the students gain an increasingly broader and more objective insight into as they become more proficient critical thinkers. As discussed above, this indicates a view of knowledge as *epistêmê*, where ‘the principles of movement, change, or development in the subjects studied reside in the subjects themselves, not in anyone or anything outside the subjects studied’ and ‘the relation implied between the knower and the known, is difference, distance, separation, non-interaction, and non-interference’ (Eikeland, 2007, pp. 349–50). The relationship between the student and the content is thus objective and not open to active intervention.

In contrast, by building on a dialectic and hermeneutic understanding of content as having an objective side outside the individual and a subjective side as it becomes meaningful to the individual, Klafki opens up the possibility that individuals can indeed access and change the world. By working with examples they can connect with, students can gain insight into the world and the possibility to act on that insight, conceptualized by Klafki (2014) as a ‘double unlocking’. The process of *Bildung* is, therefore, one that occurs in a dialectic relationship between the external world and the individual, where the former is at the same time constraining and being constructed as meaningful by the latter. This duality is the crux of the critical-constructive *Didaktik*, as it not only allows us but morally compels us to discuss and seek to remove or minimize the constraints put on the unfolding of our own and others’ individuality.

By including insights from critical theory, Klafki (2014) grounds his understanding of *Bildung* in the aspiration for self-determination, co-determination and solidarity with others, thus making it explicitly normative and bringing power relations and domination to the forefront. In terms of epistemology, this is captured by the strong elements of *phrônêsis* in the critical-constructive *Didaktik*. Questions such as how to understand a problem or what kind of action should be taken must be established with reference to the aims of *Bildung*. This requires a form of *praxis* that is different than the one taking place in Lipman’s community of inquiry, where the quality of the answers depends on how well the method is applied—much like the quality of a sentence depends on the grammatical skills of language users. Following Aristotelian epistemology, this is the *theôria* form of *epistêmê*, which is practical, but rather enclosed and stable (Eikeland, 2007). The critical-constructive *Didaktik* requires ethical deliberation that takes into account the relationship between the individual, the society and humanity at large and the power relations at play. Therefore, what we have is an epistemology that can help us deal with the issues within the CT school that Lim directs our attention to; the epistemology is social and relational, incorporates issues of differential power in society and meets the need of students ‘to be able to relate themselves and their actions to other supposedly distant members of society—and even the world’ (Lim, 2015, p. 15).

7. Conclusion

The analysis in this article building on Aristotelian epistemology shows there is much to be gained from engaging with the German/Scandinavian tradition of *Bildung*-centred *Didaktik* for those working in the field of CT. Klafki’s critical-constructive *Didaktik* not only offers an epistemology that can ground CT in a comprehensive theory of education built on commitment to autonomy, democracy, justice and solidarity, but its focus on the core task of lesson preparation (Klafki, 2010) can help to bring these questions to the attention of the teacher in a very concrete way. As the content chosen for a lesson is seen as neither providing raw material for skills training nor knowledge that is to be ‘transferred’ to the

student, Klafki shows us that the choice does not have to be between the 'standard' or the 'reflective' paradigm, that is, between old-fashioned 'transfer of knowledge' and reductionist formalism. Instead, the teacher takes on an autonomous role that goes well beyond choosing the right method and content that goes well with the method. The teacher has to interpret the curriculum and make choices that can be justified deliberatively with reference to how *specific content* can become meaningful to his students, while at the same time helping them to 'unlock' the world and become independent and socially responsible agents and masters of their own lives. Therefore, I believe that engaging further with critical-constructive Didaktik can be a worthwhile endeavour for critical pedagogues, such as Lim (2011, 2015), who are seeking an epistemology of CT that goes beyond the rather narrow and decontextualized offerings of the CT movement.

In a wider sense, the argument of this article should be seen as contributing to the attempts already underway to use insights from Bildung-centred Didaktik to challenge the formalism that underpins recent trends in global curriculum development (Willbergh, 2015) and to reconnect the field of curriculum studies to the practical questions of making and implementing curriculum (Deng, 2015, 2018). While there may be much to gain by employing the method of critical inquiry that Lipman and the CT movement provide, especially in terms of teaching the skills that critical thinkers need in order to make judgments about various issues, there is a real danger that the question of content selection and lesson planning as a *normative* undertaking is ignored as CT is subsumed under the labels of 'higher-order thinking skills' and 'key competencies'. While the increasingly abstract and formalistic curricula can be seen as an attempt to provide education that enables students to face an uncertain and ever-changing future, replacing the content with competency is bound to fail (Willbergh, 2015). The strength of critical-constructive Didaktik is that it enables educators not only to criticize such policy trends but also provides a powerful tool for selecting and working with content in concrete classroom settings. The epistemology it offers could, therefore, be attractive to curriculum scholars who seek to 'return to the field' and challenge the positions of measurement specialists, learning scientists and educational technologists (Deng, 2018). I believe this is not only a pressing pedagogical task but a democratic one, which makes the continued engagement and dialogue between Didaktik and curriculum studies all the more important.

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Notes on contributor

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References

- Alvesson, M., & Skoldberg, K. (2018). *Reflexive methodology: New vistas for qualitative research* (3rd ed.). London: Sage.
- Apple, M. (2004). *Ideology and curriculum* (3rd ed.). New York & London: Routledge.
- Baily, S., Stribling, S. M., & McGowan, C. L. (2014). Experiencing the 'growing edge': Transformative teacher education to foster social justice perspectives. *Journal of Transformative Education*, 12(3), 248–265.

- Biesta, G. (2007). Why 'what works' won't work: Evidence-based practice and the democratic deficit in education research. *Educational Theory*, 57(1), 1–22.
- Bourdieu, P., & Wacquant, L. J. D. (1992). *An invitation to reflexive sociology*. Cambridge, UK: Polity Press.
- Burbules, N. C., & Berk, R. (1999). Critical thinking and critical pedagogy: Relations, differences and limits. In T. Popkewitz & L. Fendler (Eds.), *Critical theories in education: Changing terrains of knowledge and politics* (pp. 45–65). New York & London: Routledge.
- Deng, Z. (2015). Content, Joseph Schwab and German Didaktik. *Journal of Curriculum Studies*, 47(6), 773–786.
- Deng, Z. (2018). Contemporary curriculum theorizing: Crisis and resolution. *Journal of Curriculum Studies*, 50(6), 691–710.
- Dewey, J. (1997). *How we think*. New York: Dover Publications, Inc.
- Eikeland, O. (2007). From epistemology to gnoseology: Understanding the knowledge claims of action research. *Management Research News*, 30(5), 344–358.
- Ennis, R. (1985). A logical basis for measuring critical thinking skills. *Educational Leadership*, 43(2), 44–48.
- Flyvbjerg, B. (2012). Making social science matter. In G. Papanagnou (Ed.), *Social science and policy challenges: Democracy, values, and capacities* (pp. 25–56). Paris: UNESCO Publishing.
- Friesen, N. (2018). Continuing the dialogue: Curriculum, Didaktik and theories of knowledge. *Journal of Curriculum Studies*, 50(6), 724–732.
- Gundem, B. B. (1995). Notes on the development of Nordic didactics. *Journal of Curriculum Studies*, 24(1), 61–70.
- Gundem, B. B., & Hopmann, S. (1998). (Eds.). *Didaktik and/or Curriculum*. New York: Peter Lang.
- Habermas, J. (1966). Knowledge and interest. *Inquiry*, 9(1–4), 285–300.
- Hanks, C. (2011). The double edge of reason: Jürgen Habermas and the Frankfurt School. In B. Levinson (Ed.), *Beyond critique: Exploring critical social theories and education* (pp. 80–112). New York: Routledge.
- Hollis, M. (2002). *The philosophy of social science: An introduction*. Cambridge, UK: Cambridge University Press.
- Hopmann, S. (1999). Wolfgang Klafki och den tyska didaktiken [Wolfgang Klafki and the German Didaktik]. In M. Uljens Ed., *Didaktik – teori, reflektion och praktik*. [Didaktik – theory, reflection and practice] (pp. 198–214). Lund: Studentlitteratur.
- Hopmann, S., & Riquarts, K. (1995). Starting a dialogue: Issues in a beginning conversation between Didaktik and the curriculum traditions. *Journal of Curriculum Studies*, 27(1), 3–12.
- Hudson, B. (2002). Holding complexity and searching for meaning: Teaching as reflective practice. *Journal of Curriculum Studies*, 34(1), 43–57.
- Hudson, B. (2003). Approaching educational research from the tradition of critical-constructive Didaktik. *Pedagogy, Culture and Society*, 11(2), 173–187.
- Kant, I. (1993). *Grounding for the metaphysics of morals*. Cambridge, MA: Hackett Publishing.
- Klafki, W. (1998). Characteristics of critical-constructive Didaktik. In B. B. Gundem & S. Hopmann (Eds.), *Didaktik and/or curriculum* (pp. 307–330). New York: Peter Lang.
- Klafki, W. (2010). Didaktik analysis as the core of preparation for instruction. In I. Westbury, S. Hopmann, & K. Riquarts (Eds.), *Teaching as a reflective practice: The German Didaktik tradition* (pp. 139–159). New York & London: Routledge.
- Klafki, W. (2014). *Dannelsesteori og Didaktik: Nye studier [Theory of Bildung and Didaktik: New studies]* (3rd ed.). Århus: Klim.
- Krüger, R. A. (2008). The significance of the concepts 'elemental' and 'fundamental' in didactic theory and practice. (G. D. Yonge, Trans.) *Journal of Curriculum Studies*, 40(2), 215–250.
- Künzli, R. (1998). The common frame and the places of Didaktik. In B. B. Gundem & S. Hopmann (Eds.), *Didaktik and/or curriculum* (pp. 29–45). New York & London: Routledge.
- Kvernbekk, T. (2011). The concept of evidence in evidence-based practice. *Educational Theory*, 61(5), 515–532.
- Lim, L. (2011). Beyond logic and argument analysis: Critical thinking, everyday problems and democratic deliberation in Cambridge International Examinations' Thinking skills curriculum. *Journal of Curriculum Studies*, 43(6), 783–807.
- Lim, L. (2015). Critical thinking, social education and the curriculum: Foregrounding a social and relational epistemology. *The Curriculum Journal*, 26(1), 4–23.
- Lipman, M. (2003). *Thinking in education*. Cambridge, UK: Cambridge University Press.
- Popper, K. (2002). *Conjectures and refutations: The growth of scientific knowledge*. London: Routledge.
- Ruzgar, M. (2018). On matters that matter in the curriculum studies: An interview with Ian Westbury. *Journal of Curriculum Studies*, 50(6), 670–684.
- Shpeizer, R. (2018). Teaching critical thinking as a vehicle for personal and social transformation. *Research in Education*, 1–18.
- Weil, D. (1998). Chapter 3: The critical-thinking movement. *Counterpoints*, 50, 47–92.
- Westbury, I. (1998). Didaktik and curriculum studies. In B. Gundem & S. Hopmann (Eds.), *Didaktik and/or curriculum* (pp. 47–78). New York & London: Routledge.
- Westbury, I. (2010). Teaching as reflective practice. In I. Westbury, S. Hopmann, & K. Riquarts (Eds.), *Teaching as a reflective practice: The German Didaktik tradition* (pp. 15–39). New York & London: Routledge.
- Westbury, I., Hopmann, S., & Riquarts, K. (Eds.). (2010). *Teaching as a reflective practice: The German Didaktik tradition*. New York & London: Routledge.

- Willbergh, I. (2015). The problems of 'competence' and alternatives from the Scandinavian perspective of Bildung. *Journal of Curriculum Studies*, 47(3), 334–354.
- Willbergh, I. (2016). Bringing teaching back in: The Norwegian NOU *The school of the future* in light of the Allgemeine Didaktik theory of Wolfgang Klafki. *Nordic Journal of Pedagogy & Critique*, 2, 111–124.
- Wittgenstein, L. (1974). *Philosophical grammar*. Oxford: Basil Blackwell.

Public documents

- OECD. (2018). *The future of education and skills: Education 2030*. Retrieved from <http://www.oecd.org/education/2030/>
- Report to the Storting no. 28 (2015–16). Retrieved from <https://www.regjeringen.no/no/dokumenter/meld.-st.-28-20152016/id2483955/>