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Revisiting 'curriculum crisis' dialogue: in search of an antidote

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ABSTRACT

This article builds upon the international dialogue around 'curriculum crisis' initiated by Michael Young in *Journal of Curriculum Studies (JCS)* in 2013 and followed up in *JCS* in 2015. It seeks to expand the dialogue in three avenues. First, when considered from a sociological perspective, Young is correct to declare 'curriculum crisis'; however, his position is limited only to the conflict theory. Second, from educational perspectives, the curriculum crisis as such is self-inflicted and it has been more of a battle among different curriculum ideologies in the Anglo-Saxon world and resistance to Bildung-centred Didaktik tradition in the Western world more broadly. Third, it points to the fourth industrial revolution as an inevitable phase. It concludes that 'curriculum crisis' is only partially about bringing knowledge back in, and the article suggests 'the prepared mind' as a metaphor to bridge knowledge and learning outcome perspectives. Specialized knowledge in curricula will become even more relevant in the innovation age, and a prepared mind adaptable to the changing world and open to continued learning can assist individuals navigate life and career creatively, meaningfully and constructively.

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Introduction



In the realm of curriculum field, there seems to prevail a recurring tendency to declare it as facing ongoing serious troubles. In the more recent history of the field, Schwab (1969) declared the curriculum field to be 'moribund', criticizing its overreliance on theory and losing the sight of the practical and what is important in the daily routines of teaching and learning in classroom settings. Fast-forward 45 years and Young (2013) rings the alarms about the 'curriculum crisis', highlighting the departure of curricula from 'powerful knowledge' and noting that the field is '[...] losing its object – what is taught and learned in school [...]' (p. 101). Seemingly, both Schwab and Young point to a similar problem in the curriculum field; however, the difference rests with their starting vantage points. Schwab develops his arguments from 'within' as an educationist, while Young argues from 'outside' as a sociologist. So, while Schwab's cry is directed at the classroom's practical level, Young addresses the issue from the school's institutional level. Young's arguments derived from a social realist movement, primarily in the UK, and heavily relying on the work of Basil Bernstein. The relevance of social realism to education and curriculum and Didaktik specifically has already been elaborated elsewhere (Lilliedahl, 2015). Next, leaving the question of whether there is a 'curriculum crisis' open for a moment,

arguably the initial fundamental questions to ask are who 'owns' the curriculum field and is curriculum and education more broadly a discipline on its own or is it just a problem to be addressed from other disciplines, such as sociology and psychology for example? Then, if there is a curriculum crisis, where does/did it originate from? Young (2013) suggests three sources of curriculum crisis:

- (1) Distrust in the specialization as the primary source of new knowledge.
- (2) Massive expansion of schooling has led to a loss of confidence in its potentially emancipatory role.
- (3) Acceptance that knowledge itself has no intrinsic significance or validity.

Finally, Young (2013) concludes that the solution for overcoming the crisis would be for the curriculum theory and curriculum 'to start not from the student as learner but from a students' entitlement or access to knowledge' (p. 107), which knowledge is 'powerful' containing two characteristics – it is specialized in the sense that it is produced in workshops, seminars and labs, and it is differentiated from knowledge that students bring to school.

This article revisits and builds upon the 'curriculum crisis' debate initiated by Young in 2013 and followed up by *Journal of Curriculum Studies (JCS)*

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with a special issue in 2015, where the debate was open for an international dialogue (Deng, 2015a). The primary aim here is to address the issue of ‘curriculum crisis’ from sociological and educational perspectives and to expand a number of points that were initially raised in initial JCS six response papers (Baker, 2015; Deng, 2015b; Hoadley, 2015; Lundgren, 2015; McEneaney, 2015; Wheelahan, 2015) to Young (2013). The core of the paper will concentrate on an overview of three sociological theories of education and how they see the relationship between education more broadly, and the role of curriculum more specifically, to society to expand points made by Baker (2015), and then on an overview of four main curriculum ideologies and Continental Europe Didaktik to expand points made by Deng (2015b, 2018). Next, the paper points to the fourth industrial revolution or innovation age to expand on the points made by McEneaney (2015) and Lundgren (2015), who disagreed with Young’s ‘curriculum crisis’ thesis. Then, the paper returns to the three sources of ‘curriculum crisis’ as discussed by Young (2013) in the light of educational and sociological theoretical considerations. Lastly, the paper discusses the implications of varied theoretical underpinnings of sociology of education and education traditions of curriculum and Didaktik for the future of teacher education and education research in the Western world.

Broadening the net of theories of sociology of education

Sociological perspectives consider education to be one of the key public functions and domains that any society in the world invests in and cares about, making education ever more ubiquitous (Baker, 2014). However, the expansion of mass schooling, particularly in the Western world, to the current levels only started during the nineteenth century and radically accelerated during the twentieth-century ‘world education revolution’ (Baker, 2014). The expansion of education, amongst else, created opportunities for sociologists and other scholars to ask new questions as to how it affects society from the sociological perspective. To this end, three main theoretical sociological outlooks, namely functional theory, conflict theory and neo-institutional theory, were forwarded to provide theoretical and empirical explanations, interpretations and understandings on the interplay between education and society at a macro perspective. In that sense, theories of sociology of education might be viewed as having a broader scope than educational frameworks, whose theoretical reach is narrower and more limited, although there are clear overlaps

among them. A summary of the theories is presented next as viewed from their proponents.

Functional theory

One of the core distinctions between three prevailing sociological theories is whether they view education’s role as a primary or secondary institution in the society. Functional theory considers that education is a secondary institution that plays the role of the socializer, i.e. students going through the education system are socialized into the meritocratic society (Collins, 1971). From this perspective, one of the core functions of education is to provide students with technical skill requirements that are needed in the job market (Collins, 1971). While doing so, education provides individuals with the opportunity to achieve educational attainment and social mobility based on their own meritocratic values. For this model, functional theory relies on a number of assumptions. The core one is that the society is stable. There are no major fluctuations in the society. Institutions have their own functions, and they all are interdependent. In turn, there is generally a fixed set of positions in the society and education’s role is to prepare individuals to fill those positions.

French Emile Durkheim is considered as the founder of the functional theory. Durkheim considered that ‘modern educational system came to replace church as the central integrative institution of society and a crucial aspect of the maintenance of the social order through its socialization functions’ (Morrow & Torres, 1995, p. 12). Furthermore, Durkheim noted that a major role of education in society was to create a unity by providing a common moral code necessary for social cohesion (Ballantine & Spade, 2007). Based on Durkheim’s work on sociological theory of education, sociologists see the transmission of moral and occupational education, discipline and values as necessary for the survival of the society. In this regard, schools play a very important role in carrying out the functions that education provides for the larger society. Durkheim was concerned primarily with the value transmission for the stability of society (Ballantine & Spade, 2007). Durkheim’s views seem to have been limited in the sense that he did not provide an explanation of how and why society changed as a result of the emerging industrial societies during the twentieth century.

Conflict theory

Conflict theory shares one common feature with functional theory – viewing education as a secondary institution – but it is fundamentally different in all other

aspects. The core assumption of the conflict theory is that society is unstable due to conflicts between classes and there is an everlasting struggle among status groups (Collins, 1971). Based on this perspective, the main activity of education is to teach particular status cultures, both in and outside the classroom. Furthermore, education is viewed as a field in which people compete against each other in order to win in class competition. This perspective assumes that districts, school leaders and teachers decide to teach students certain skills to maintain and reproduce existing social order, while students are assumed to have no agency as the system itself prepares the path for students of different backgrounds to move ahead to the extent that their existing social status allows. Also, same as functional theory, conflict theory considers that one of the functions of the education is to serve as a mechanism of occupational placement.

The founder of conflict theory German Karl Marx argued that the economy determines education and put forth his concept of 'economic determinant' (Marx & Engels, 1971). Marx was concerned with the growth of capitalism during the twentieth century as well as with the social conditions of the exploited workers in the class system. He argued that schools create and maintain inequality by teaching students an ideology that serves the interest of the rich and instills students a sense of the false consciousness. Weber (1961) also contributed to conflict theory with his concept of power but had a different view about the role of the economy on society. He considered that conflict in society was not based solely on economic relations. According to him, inequalities and potential conflict were sustained in different distributions of status, power and class.

French sociologist Pierre Bourdieu was the one to advance conflict theory beyond economic determinant argument. He argued that the education system favoured students who possessed a certain level of cultural and social capital (Bourdieu, 1977). Cultural capital refers to the cultural practices, including language patterns and experiences such as visits to museums, that provide knowledge of middle- and upper-class culture, which is also the dominant culture in schools. According to him, schooling enables social reproduction based on the cultural and social capital that each student possessed and brought in with them to the school settings. Those without the cultural capital that is dominant in the school contexts are disadvantaged and thus have thinner chances to succeed. Cultural capital allows students from middle and upper classes to convert home and school advantages into economic advantage (Lareau, 1989).

Neo-institutional theory

Neo-institutional theory brought a fresh perspective in the field of sociology and how education is viewed

from sociological perspectives. First, contrary to previous prevailing theories, in neo-institutional theory perspective, education plays the role as a primary institution in the society. It operates on the assumption that education as a primary institution influences society in multi-directional ways owing to the rise of the Western university (Baker, 2014). The theory emerged from the work of American John Meyer who put forth the legitimation theory, which treats education as constructing or altering roles in society and authoritatively allocating personnel to these roles (Meyer & Rowan, 1977). Meyer and Rowan argued that education consists of allocation rules and initiation of ceremonies designating which persons possess the authority and competence for various elite roles, thus providing legitimacy to individuals to occupy certain roles.

One key argument of the neo-institutional theory is that education not only changes individuals but also transforms other institutions and modern society entirely (Baker & LeTendre, 2005; Meyer & Rowan, 1977). It is noted that the educational revolution has strengthened the transformative role of education, and as a result, individuals attend formal schooling much longer and adult status is mostly determined by academic outcome (Baker, 2014). In addition, Baker argued that in post-industrial society all institutions are increasingly influenced by ideas, values and norms originating from education as a social institution. Given this context, individuals acknowledge the results of formal schooling, i.e. they understand that where they end up in the social ladder is a result of their cognitive abilities and academic achievement during the schooling process.

Depending on what assumptions one holds for the role of education of the three theories described above, Young's (2013) arguments about 'curriculum crisis' then both hold and don't hold. From functional and conflict theory perspective, education, and by extension school and university curricula, does not rely on 'powerful knowledge' that is specialized and differentiated from everyday knowledge. Rather, it is shaped to suit certain economic, social and cultural needs so that at the end 'powerful knowledge' reaches only those holding economic power and cultural superiority in the society. From these two perspectives, Young is correct – there is a prevailing 'curriculum crisis' that perpetuates inequalities in the society and prevents access for all to 'powerful knowledge'. However, when turning to assumptions of the neo-institutional theory, the opposite argument may be made. Education, and by extension curriculum, is built on powerful knowledge that is specialized and differentiated from everyday knowledge, and thus, it contributes to advancement of Western societies with its transformative powerful role.

Curriculum and Didaktik – two main Western educational traditions

The current Didaktik and curriculum orientations are the main Western educational traditions grounded in their historicity. In ancient Greece, leisure time was emphasized as an opportunity for individuals to develop educationally. The omnipresent word *school* comes from Greek *scōle* meaning leisure (Adler, 1951). However, leisure did not mean spare time but ‘an opportunity to contemplate the significance, worth, meaning, and aesthetic value of one’s life and contributions’ (Schubert, 1986, p. 56). Contributions of ancient Greek philosophers, especially of Plato in *Republic* and Aristotle in *The Politics*, constitute the roots of a liberal education – their curriculum ideas included education of both boys and girls from age 6 to 18 in a number of disciplines such as music, mathematics and gymnastics and the goals should be broad and not directed to vocations (Schubert, 1986). In ancient Rome, education was influenced by Greek ideas, and the curriculum consisted of philosophy, literature and rhetoric, but ‘as this was assimilated into the Roman life-style, it became more Latin-oriented, eventually creating the Latin grammar school, which was the model for the Western education’ (Schubert, 1986, p. 58). During the renaissance period, towards the end of the fifteenth century, Western scholars returned to ideas developed in ancient Greece and Rome, which for education meant reviving Socratic questioning and humanistic pedagogy, and emphasizing liberal art education around dialectic, rhetoric, grammar, astronomy, arithmetic, geometry and music as well as Greek and Latin languages, history and fine arts (Schubert, 1986).

Continental and Nordic Europe Didaktik

It was during the renaissance and enlightenment periods that the roots of modern Didaktik were established. John Amos Comenius (1592–1670) with his *Didactica Magna/The Great Didactic* is considered to be the first truly European educator and the father of modern education (Hopmann, 2007; Schubert, 1986). Comenius emphasized the understanding of how students meet the knowledge of disciplines on their own beings more than what knowledge is valid within the structure, and he argued that there should be a sequence of knowledge from the micro-cosmos of students to the macro-cosmos of the world (Hopmann, 2007). Didaktik scholars view Humboldt as the first educationist that initiated the development of the theory of Bildung or cultivation of humankind as the core of Didaktik tradition (Gundem & Hopmann, 1998; Hopmann & Riquarts, 1995; Lüth, 1998). In von Humboldt’s own words,

It is the ultimate task of our existence to achieve as much substance as possible for the concept of

humanity in our person, both during the span of our life and beyond it, through the traces we leave by means of our vital activity. This can be fulfilled only by the linking of the self to the world to achieve the most general, most animated, and most unrestrained interplay. (Humboldt, 1793/2000, p. 58)

Humboldt considered that individuals needed to be cultivated and elevated into higher beings so that they are able to transform themselves, as well as the world around them so that they become significant to the world with the traces they leave behind. According to him, to fully achieve the goals of Bildung meant grasping a completely fresh view of the world as well as self-determination. Bildung, as explicated by Humboldt, meant ‘grasping as much world as possible’ and as ‘contributing to human kind’ by the development of one’s own unique self. In the process of acquiring Bildung, he argued, two sources of resistance try to interrupt it – the changes that any intellectual activity acquires as it proceeds and the nation where one is situated and the occupation that one is involved within that context. To him, the geniuses, the ones who manage to overcome these two interruptions, are viewed as disturbances in the society but are the ones who move their nations to new positive directions (Humboldt, 1793/2000). He also emphasized that one can understand the mind only through deep reflection and continued observation, which are cornerstones of what later become Didaktik theory. However, Humboldt noted that education alone is not sufficient and discerned social relations and one’s circumstance as other sources of enrichment of individuality, i.e. acquiring inner Bildung (Lüth, 1998). Still, Humboldt’s definition of Bildung was but one of the many developed during the classic theories of Bildung (*Bildungstheorie*). Klafki (2000a), referring to Immanuel Kant, describes Bildung as the capacity for reasonable self-determination,

[...] which presupposes and includes emancipation from determination by others. It is a qualification for autonomy, for freedom, for individual thought, and for individual moral decisions. Precisely because of this, creative self-activity is the central form in which the process of Bildung is carried out. (Klafki, 2000a, p. 87)

According to Klafki, this definition of Bildung derives directly from the ideal of enlightenment. Quoting Kant, Klafki (2000a) argues that the enlightenment itself meant man’s departure from an immaturity, while immaturity, in turn, is the incapacity to make use of one’s own reason without the guidance of another. Bildung was not limited only to this sense of subjectivism, Klafki argues, noting that a second group of core concepts attached to Bildung included ‘humanity, humankind and humanness, world, objectivity, the general’ (Klafki, 2000a, p. 88, emphasis in original). Thus, the process of self-determination is to be achieved within one’s national, cultural and moral context, i.e. as part of the humankind or the world that one is

situated in. Klafki (2000a) emphasizes that according to classical theories of *Bildung*, the processes and outcomes of *Bildung* are not limited to any specific group in society or any specific class or intellectual elite – *Bildung* is *Allgemeinbildung* or *Bildung for all*. This conception of *Bildung* for all persists to the present days where *Bildung* applies to both general and vocational education programmes (Klafki, 2000a). However, it is the students themselves that have to develop their reasoning and transform their views of the world, while teachers can only assist them in their pursuit of acquiring *Bildung* (Hudson & Meyer, 2011).

German concept *Bildung* is a noun meaning something like ‘being educated, educatedness’. It also carries the connotations of the word *bilden* ‘to form, to shape’. Other terms used to translate *Bildung* include ‘formation’, ‘self-formation’, ‘cultivation’, ‘self-development’ and ‘cultural process’ (Siljander & Sutinen, 2012). Tracing historical roots of the term *Bildung*, Schwenk (1996), as referred to by Siljander and Sutinen (2012), distinguished two historical traditions of *Bildung* reflected into the modern *Bildung*, including *cultura animi* of ancient Hellenism and Christian doctrine of *Imago Dei* (Schwenk, 1996, p. 210), where *cultura animi* means spiritual cultivation, while *Imago Dei* literally means God’s image. Linguistically, German term *Bildung* follows the doctrine of *Imago Dei* since the root of the word *Bildung* is *Bild*, which means image (Siljander & Sutinen, 2012, p. 3). Based on these two historical traditions, *Bildung* is defined, first, as a creative process where the person shapes and develops himself or herself as well as his or her cultural environment, and second, ‘[...] in the processes of *Bildung*, a person seeks a more advanced form of life’ (Siljander & Sutinen, 2012, p. 4). *Bildung* is conceived as an ideal aspiring to be mastered by students with teacher’s support and something to hold on to and work towards throughout a personal life journey. In other words, it means preparing students for lifelong learning beyond formal education, for the sake of transforming themselves as human beings, and, to the extent possible, extend that transformation to what the person does (occupation) and to society at large (context). Furthermore, *Bildung* is not only about preparing students to participate in society and economy but about developing students’ significance in the world (Pinar, 2011). To this end, *Bildung* epitomizes ‘the prepared mind’, i.e. a student’s awareness and openness about the courses of action needed to be taken to navigate life and career creatively and meaningfully. The prepared mind as construed here enables students to have tools at their disposal to evaluate what risks need to be taken in their pursuit of a more ‘advanced self and society’ as promoted by *Bildung*.

In the broadest sense, *Didaktik* encompasses the dimension of objectives and contents and the dimension of methods (Klafki, 2000b). Hopmann (2007) identifies three commonplaces of *Didaktik*, namely

Bildung, matter and meaning and autonomy. *Bildung* is the outcome of the encounter of the student with the content facilitated by the teacher. Within *Didaktik*, there is no separation between the matter and meaning as they cannot exist without one another (Hopmann, 2007), and teachers define ‘What knowledge is of most worth?’ as part of their professional autonomy (Pinar, 2011). Künzli (1998) explicates that the primary focus of a didactician is the object of learning, and what that object can and should signify to students and how students experience the significance, while,

All other questions and problems – other than the significance of the learning content – such as class management, individual and social learning, learning control, individual learning speed, appropriate representation, etc. – are subordinate to this central concern and gain significances only when the question of educative substance (*Bildungsgehalt*) is at issue. Educational psychology and instruction research tend to be peripheral phenomena. (p. 40)

Lastly, the commonplace of autonomy means the autonomy of both teachers and learners in going through their encounters over certain subject matter, and it specifically pertains to flexibility in terms of the outcome of *Bildung*,

[...] which is often not visible at all, at least not right away. It depends on what remains after the hurly burly of teaching is done, the battle of minds is lost or won, and the student comes to terms with his or her own world. (Hopmann, 2007, p. 117)

While both rooted in the theories of *Bildung*, two *Didaktik* models developed during the twentieth century, namely the human science-oriented pedagogy during the first part of the twentieth century and critical-constructive *Didaktik* from the 1960s to the present days (Klafki, 1998; Künzli, 1998). Klafki (1998) attributed three characteristics to the human science pedagogy, including, first, the close relationship between the pedagogical theory and pedagogical practice; second, the relative autonomy of education from external political, social and cultural influences; and third, conceptualizing and understanding human science pedagogy in a historical context. Klafki credits philosopher Wilhelm Dilthey and educationist Erich Weniger as contributors to and promoters of human science pedagogy. Critical-constructive *Didaktik*, in turn, was advanced by Klafki himself in an article in 1963. He positioned that the concept ‘critical’ pertains to the interest of knowledge ‘[...] insofar as this approach to *Didaktik* is oriented towards the goal of guiding all children and adolescents to greater capacity for self-determination, co-determination and solidarity’ (Klafki, 1998, p. 311). The concept of ‘constructive’ is used to mean the interplay between the theory and practice and to allow for an ongoing

reformed or reforming practice for a humane and democratic schooling. Klafki also argued, in almost sociology of education terms, that education–society connection was a two-way relationship, claiming that education has both the opportunity and responsibility not only to be reactive to societal needs but also to influence social developments for the benefit of the entire society.

Another characteristic of critical-constructive Didaktik deals with elements that Bildung needs to promote, namely self-determination, co-determination and solidarity, which in Klafki's words are defined as follows:

Self-determination: Each and every member of society is to be enabled to make independent responsible decisions about her or his individual relationships and interpretations of an interpersonal, vocational, ethical or religious nature.

Co-determination: Each and every member of society has the right but also the responsibility to contribute together with others to the cultural, economic, social and political development of the community.

Solidarity: [...] means that the individual right to self-determination and opportunities for co-determination can only be represented and justified if it is associated not only with the recognition of equal rights but also with active help for those whose opportunities for self-determination and co-determination are limited or non-existent due to social conditions, lack of privilege, political restrictions or oppression. (Klafki, 1998, p. 314, emphasis added)

Indeed, these three elements of Bildung put forth by Klafki underline the key opportunities as well as challenges that educational processes offer and are faced with to the present days. At the institutional level, Didaktik has seen a division into general Didaktik (*Allgemeine Didaktik*) and subject matter Didaktik (*Fachdidaktik*) where the first centres around broader issues of teaching and learning, while the second deals with analysis, organization and preparation of subjects of teaching (Künzli, 1998). Further development of subject matter Didaktik as well as the relationship between the general Didaktik and subject matter Didaktik is considered to be the challenge facing the fields (Seel, 1999).

Klafki's Didaktik analysis has been at the core of instructional planning as part of the critical-constructive Didaktik. It relies on five questions, including,

(1) What wider or general sense or reality do these contents exemplify and open up for the learner? What basic phenomenon or fundamental principle and what law, criterion, problem, method, technique or attitude can be grasped by dealing with this content as an 'example'?

- (2) What significance does the content in question or the experience, knowledge, ability or skill to be acquired through this topic already possess in the minds of the children in my class? What significance should it have from a pedagogical point of view?
- (3) What constitutes the topic's significance for the children's future?
- (4) How is the content structured [which has been placed into a specifically pedagogical perspective by questions 1, 2 and 3]?
- (5) What are the special cases, phenomena, situations, experiments, persons, elements of aesthetic experience and so forth, in terms of which the structure of the content in question can become interesting, stimulating, approachable, conceivable or vivid for children of the stage of development of this class? (Klafki, 2000b, pp. 151–155)

These five questions enable the design of learning opportunities that set up conditions for teachers and students to work together towards meeting the three elements or abilities of Bildung in the form of self-determination, co-determination and solidarity.

Despite being heavily situated in the German-speaking world in the Continental Europe, Didaktik has been influential to other geographic locations, most prominently in the Nordic Europe, where Didaktik orientations have been central to the development of education throughout the twentieth century up to present (Hudson & Meyer, 2011; Kansanen, 1999). However, Hudson and Meyer (2011) had observed that Nordic educational scholars were also open to the Anglo-American curriculum theory as evidenced in a significant number of references to Anglo-American scholars used in their published scholarly work compared to a lower rate of such references among Continental Europe educators. Still, Kansanen (1999) emphasized that Didaktik constituted the central theory for running educational systems and selecting curriculum and instructional methods in Nordic countries.

Competing Anglo-American curriculum ideologies

Differing notions of curriculum tradition have been forwarded so far – some scholars refer to subcomponents of curriculum tradition as ideologies (Schiro, 2013; Schubert, 1986) and others refer to them as models (Ellis, 2004), traditions of practice (Zeichner, 1993) and orientations (Eisner & Vallance, 1974) among else. Despite the differing views, a broad consensus is identified in the literature around four main competing curriculum ideologies, namely humanists/scholar academic, child study/learner centred, social meliorists/social reconstruction and social efficiency (Kliebard, 2004; Tahirsylaj, 2017). A summary account of how these

four ideologies became mainstream as such in the US at the turn of the twentieth century and what influences played significant roles on proponents of each of them has been recently published (Tahirsylaj, 2017) as well as a comparative perspective on curriculum and Didaktik traditions (Tahirsylaj, 2019; Tahirsylaj, Niebert, & Duschl, 2015).

Briefly, *humanist/scholar academic* ideology promoted a curriculum model that pushed for a general academic curriculum that focused on reading, writing and arithmetic, but also required taking other courses such history, geography, arts, Greek and Latin classes in high school (Ravitch, 2000). At the heart of humanistic approach was the belief that the role of the curriculum was to improve society by advancing the academic achievement of individuals. *Child study/learner-centred group* or developmentalists as they were also referred to came into American curriculum debate with the initiation of child study movement in the 1880s by G. Stanley Hall (1844–1924). John Dewey was central to the development of learner-centred approaches to education. The movement promoted some aspects of Herbartian curriculum, which focused on subjects being taught, with emphasis on history and literature and later science, instruction methods and steps that would make curriculum accessible to learners (Pinar, 1995). The *social meliorists* view ‘human experience, education, truth, and knowledge as socially defined’ (Schiro, 2008, p. 143), and they did not believe that there could be a good individual apart from a good society (Counts, 1932). All social meliorist proponents considered education as an engine that will resolve all social ills and believed in the power of education to renew and transform society. *Social efficiency* ideology suggested that students would learn in schools only what they needed to know in order to perform as adult members of social order and ‘To go beyond what someone had to know in order to perform that role successfully was simply wasteful’ (Kliebard, 2004, p. 77). The ideology relied on adoption of scientific management ideas for education planning and delivery (Fredrik Taylor), introduction of ‘intelligence’ measurement (Edward Thorndike) and Tyler rationale as guiding principles for curriculum and instruction purposes. Tyler’s (1949, p. 51) four guiding questions include the following:

- (1) What educational purposes should the school seek to attain?
- (2) How can learning experiences be selected which are likely to be useful in attaining these objectives?
- (3) How can learning experiences be organized for effective instruction?
- (4) How can the effectiveness of learning experiences be evaluated?

The Tyler rationale operates under the assumptions of the educational philosophy of social efficiency and serves as a technocratic model that dominated American schools to the present day (Deng & Luke, 2008). Indeed, the persistence of Tyler rationale situated in social efficiency curriculum ideology throughout the twentieth century to the present days has been evidenced by both curriculum scholars and historians of education (Ellis, 2004; Kliebard, 2004, 1970; Pinar, 2011; Ravitch, 2000).

Didaktik and curriculum in comparative perspective

Scholars have argued that while both Didaktik and curriculum orientations deal with the same issues and concerns in principle in terms of educating children, clear differences persist as to how they go about doing the school business. To show how striking the differences are between the two traditions, let’s return to the key Klafki’s and Tyler’s questions that guide preparing and selecting curriculum and instruction for the classroom practices as shown above.

Klafki’s questions for Didaktik analysis and Tyler’s questions as part of Tyler rationale for selection of curriculum and instruction have been and still are influential in educational systems in respective traditions. An examination of these questions reveals the most striking difference between the two sets of questions and, indeed, between the two traditions, i.e. the complete lack of content focus on Tyler’s questions and complete lack of assessment/evaluation in Klafki’s questions. Second, Klafki’s questions are addressed to teachers and what content and examples and experiences they will select and teach to their students, thus making Didaktik a teacher-oriented tradition that relies on teacher professionalism, responsibility and autonomy, while Tyler’s questions are addressed at least at the school level, thus making curriculum an institutional- or system-oriented tradition where teachers implement what schools/system require them to.

Third, Tyler’s questions are about the efficiency of the system, and they require an evaluation of learning experiences so that there is an empirical base as to how efficient the system is in terms of learning outcomes. Klafki’s questions emphasize idiosyncrasies of individual classrooms, teachers and students allowing for the learning outcomes to vary as well as to be determined by specific encounters of students with content and teachers in specific classrooms, which ultimately will have a different significance educationally, emotionally and culturally. Lastly, Tyler’s questions in a more narrow sense, and the Anglo-American curriculum framework in a broader sense, operate focusing on questions 4 and 5 in Klafki’s Didaktik analysis which are pedagogical in nature in

the sense that they are concerned with how learning should take place, while questions 1, 2 and 3 that are curricular in nature in the sense that they deal with content that has received far less attention in curriculum field (Deng & Luke, 2008).

Didaktik and curriculum traditions have been referred to as two educational ‘superdiscourses’ in the Western world (Autio, 2006), while in other cases, it has been stated that the two traditions are ‘[...] incommensurable as they operate on the basis of fundamentally different assumptions and ideas’ (Biesta, 2011, p. 176). According to Biesta (2011), Didaktik theory was established as an academic field of its own in the Continental Europe, while curriculum theory in Anglo-American world was not. Referring to British scholars (Hirst, 1966; Tibble, 1966), Biesta (2011) noted that education in the Anglo-American context was constructed as an interdisciplinary field with theoretical input from other foundational disciplines such as philosophy, history, psychology and sociology. According to Hirst (1966), curriculum theory cannot generate any unique understanding about education in addition to what is generated through ‘fundamental’ disciplines of philosophy, history, psychology and sociology. On the other hand, Biesta (2011) argued that educational sciences in Continental Europe developed into a discipline of its own because it made the distinction between the natural and social sciences. He attributed this distinction to German educationist Wilhelm Dilthey.

Dilthey argued that there was a fundamental distinction between the study of natural phenomena and the study of social and historical phenomena. While the world of natural phenomena is a world of cause and effect which for that reason is amenable to *explanation*, the socio-historical world is a world in which human beings pursue aims and plan actions in order to achieve these aims. The main objective of the study of the socio-historical world should, therefore, be to clarify the aims people pursue. This is not a question of explanation but requires *understanding*. Moreover, such understanding cannot be generated through observation from the ‘outside’ but needs interpretation and an insider perspective (Biesta, 2011, p. 186, emphasis in the original).

Biesta noted that the insider perspective is developed only when there is a clear conception of education and what the object of study of such field is. In his view, there is nothing wrong asking philosophical, historical, psychological and sociological questions of education, but what is further needed is asking educational questions about education, which according to him include questions about the processes and practices of education. In other words, according to Biesta (2011), educational questions about education are asked and addressed in Continental Europe-based Didaktik tradition but not in Anglo-American-based curriculum tradition. Still, the lacking of a clear independent educational

theory in the Anglo-American context does not constitute the end of comparison and dialogue between the two traditions.

In the meantime, on the other side of the Atlantic, the US curriculum scholars have their dilemmas about the curriculum field. For example, Connelly and Xu (2008) posit that there were two types of progressive scholars during the progressive era of education at the turn of twentieth century in the US, namely pedagogical progressives represented by John Dewey and administrative progressive represented by psychologist Edward Thorndike. The first had the most impact on curriculum rhetoric and the latter on curriculum structure and practice, a scenario often referred to as a battle between Dewey and Thorndike where Thorndike won and Dewey lost (Connelly & Xu, 2008; Lagemann, 1989).

So what does an educational perspective on curriculum and in relation to ‘curriculum crisis’ identified by Young (2013) reveal? First, it offers insights to different competing curriculum ideologies and how they project their role to corresponding societies – a discussion that was completely missing in full in the JCS2015 symposium. A more focused exploration of the four curriculum ideologies shows that the issue of what curriculum should schools teach and what knowledge is of most worth has been central for ages. In particular, Didaktik’s focus on and ‘obsession’ with content as shown in Klafki’s five questions indicates the centrality of knowledge and its significance for students’ present and future. Considered from these rich Western educational perspectives, then ‘curriculum crisis’ does not exist – it is more an issue of which perspective one wants to adopt, which in turn does have consequential issues for the type of curriculum that students are introduced into. Also, this, in turn, implies that different curriculum approaches and perspectives will have varied ‘powerful knowledge’ as each perspective pursues specific educational goals for students individually and for society more broadly.

Fourth industrial revolution or ‘innovation age’

In the well-argued account of Lundgren (2015) in response to Young (2013), the issues of modernity, internationalization and globalization are highlighted as a source of dramatic change for education. In addition, Lundgren pointed to the third industrial revolution as placing new demands of education with ‘[...] the transformation from a labour market structured by industrial production to a labour market structured by service production, circulation of products, reproduction and, above all, the new information technology [...]’ (Lundgren, 2015, p. 796). Education does not exist in isolation from society and what goes on in the national and global setting,

while at the same time, developments at national and global arenas are shaped by education, as neo-institutional theorists would argue. McEneaney (2015) also reinforced arguments about the significant role of new information technology on knowledge-based curriculum, a role that Young (2013) seems to diminish.

To continue where Lundgren (2015) left with the third industrial revolution, the world is heading fast towards the fourth industrial revolution or innovation age. Schwab (2017) argues that while three previous revolutions liberated humankind from animal power, brought mass production and introduced digital capabilities to billions of people, respectively, the fourth industrial revolution is creating dramatic shifts again on how people live and work. Ubiquitous, mobile supercomputing, intelligent robots, self-driving cars, neuro-technological brain enhancements and genetic editing are some of the evidence of dramatic changes brought about by the fourth industrial revolution (Schwab, 2017). Further, as a result of technological developments brought about by the fourth industrial revolution, technological devices are starting to be considered as having cognitive skills and own decision-making powers and thus can make decisions within a few milliseconds (Hayles, 2017). An example of this is high-frequency trading algorithms, where about 75% of stock exchange in the US occurs through high-frequency trading algorithms (Hayles, 2017). As a result, the routine jobs will continue to disappear, while creative pursuits that lead to substantial innovation will be increasingly in demand.

One implication of the fourth industrial revolutions for education is that the demand for more powerful knowledge-based curriculum will only increase. The good news is that the Internet itself can assist in the provision of the knowledge-based curriculum, as McEneaney (2015) also argues. The expansion of open educational resources as well as massive open online courses from some of the most highly esteemed institutions of higher education is an example. The challenge for education is not only how to prepare students to live and contribute into the changing world but also to equip them with high ethical and moral values that will make possible continued development of democratic societies. To this end, the ideas and theories of Bildung might come handy so that schools and education meet not only instrumental but also emancipatory goals. Similarly, curriculum ideologies also contribute to designing and delivering education and curricula that serve diverse purposes and meet various ends that go beyond instrumental values of education and social efficiency.

Discussion, conclusions and implications

To return to the questions asked at the beginning of the paper then – who ‘owns’ the curriculum field, and is there a ‘curriculum crisis’? – it can be argued that the curriculum is ‘owned’ differently when considered from a sociological and educational perspective. In fact, as Wheelahan (2008) noted, the ‘curriculum crisis’ is present since ‘The role that knowledge should play in curriculum is strangely absent from debates within the sociology of education and within education policy’ (p. 205). In this respect, ‘curriculum crisis’ lives in the theoretization, or lack thereof, of the status of knowledge within the curriculum from the sociology of education perspective. Therefore, from his sociological points of departure of Emile Durkheim and Basil Bernstein, Young (2013) is correct to call for *bringing the knowledge back in*. However, when considered from the educational perspectives of curriculum and Didaktik, knowledge and curriculum are central now, and have been so, for as long as various forms of education were attempted during recorded history. So seen from ‘within’ education, it is hard to argue that there is a ‘curriculum crisis’ as such. Furthermore, an educational consideration from curriculum ideologies and Didaktik perspective mitigates and to some extent negates the three sources of ‘curriculum crisis’ as identified by Young (2013), most strikingly so if Didaktik’s tradition contribution is fully acknowledged, or education as science is developed, something that has not yet happened in English-speaking world of education (Alexander, 2004; Biesta, 2011). Namely,

- (1) Didaktik’s focus on specialization of subject areas through subject didactics negates the distrust in specialization as primary source of knowledge.
- (2) Didaktik’s focus on Bildung negates the idea that education has lost the confidence in the emancipatory role of schooling that goes beyond students’ mastery of certain knowledge and skills; and
- (3) Didaktik’s focus on content and the significance that content has for students’ present and future negates the argument that there is acceptance that knowledge itself has no intrinsic significance.

In conclusion, a more expansive view of curriculum and knowledge within the curriculum from various sociological and educational perspectives has implications for teacher education and education research, predominantly so in the Western world. It is of utmost importance that teacher education programmes are designed in such ways that they intro-

duce student teachers to the full scope of educational perspectives from both curriculum and Didaktik traditions, as well as to other perspectives that touch upon education such as sociology of education, educational psychology and philosophy of education. If the emphasis is placed on some over other theories and perspectives, institutions of education risk educating student teachers who will operate on a limited scope of conceptual tools when they plan and implement teaching content.

Similarly, with regard to education research, I concur with Biesta (2011) that some educational issues are fundamentally educational and as such can be best addressed from educational perspectives despite counterarguments that education is not an academic discipline in itself in English-speaking world and as such it cannot generate new scientific knowledge (Hirst, 1966), but from the Continental Didaktik perspective the opposite can be argued.

From a Continental perspective it is remarkable that the idea of education as a discipline in its own right with its own forms of theory and theorising is almost entirely absent in the Anglo-American construction of the field. This is not merely a historical fact but a situation that continues up to the present day. (Biesta, 2011, p. 189).

Ultimately, Michael Young's call for *bringing knowledge back in* applies to not only bringing knowledge back in the curriculum but also allowing knowledge from Didaktik in as well as from curriculum ideologies about curriculum and education in general as ways to enrich conceptual and methodological tools through which education and curriculum issues are discussed, decided, researched and theorized.

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