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21ST-CENTURY COMPETENCIES: THE OECD AS A REFORMER OF THE LANGUAGE OF EDUCATION

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ABSTRACT

Several international projects of the 2000s have defined 21st-century skills or competencies. These are becoming a new way of speaking about education and curricula. The OECD has been a pioneer in this enterprise. Its comparative measurement approach requires the definition of 'generic competencies', independent of different cultures, national curricula and fields of knowledge. By measuring these, the Organisation considers itself able to evaluate the quality and efficiency of national school systems and to create a reliable foundation for their development. This paper critically analyzes the foundations and consequences of this governance strategy by analyzing the contents of the relevant OECD documents and by referring to the scholarly literature on the OECD's governance, comparative measurement and PISA. The OECD's abstract, decontextualized conception of competence cannot contribute to sustainability and well-being of societies nor provide solutions to global problems. The language of competencies directs education to what can be measured and, in this way, narrows our understanding of the purpose and contents of education and *Bildung*.

Keywords: 21st-century competence, OECD, comparative measurement, human capital, PISA, Bildung, OECD Learning Framework 2030

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Introduction

In the 2000s the terms 21st-century skills and competencies have gained a significant status in discussion on education and curricula. The projects initiated by the OECD, by big ICT enterprises and the European Union have defined these skills and competencies in order for school curricula to better meet the needs of societal change (Vogt & Pareja Roblin, 2012).

The starting point for these projects and initiatives has been the goal that school education needs to be adopted to knowledge society development, that is, to the breakthrough of information technologies, the transformation of work, globalization, and the development of knowledge and innovativeness into the key drivers of economic growth. In this situation, the proficiency in disciplinary substantive knowledge is not sufficient. Generic cognitive, social and self-regulation skills and competencies independent of disciplinary content knowledge are needed. The projects have divided these into three or four nests: 1) competencies of critical and creative thought as well as of learning to learn, 2) competencies of collaboration and teamwork, 3) ICT literacy, 4) competencies of multicultural understanding and social responsibility. These competencies are transversal and needed both in work and everyday life. Although the projects have drawn a distinction between competencies and skills, the difference is often unclear, and the terms are also used as synonyms (Weinert, 2001, p. 62). While the OECD speaks about competencies, a US-based initiative (Learning for 21st-century skills, 2005) provides a list of 21st-century skills. The first project for the definition of 21st-century competencies was the OECD's DeSeCo project (Definition and Selection of Competencies: Theoretical and Conceptual Foundations), which was realized in the years 1997-2002.

The goal of this paper is to analyze the emergence, foundations and limitations of the concept of 21st-century competence. Because it emerged as a part of the OECD's program of comparative measurement, the paper analyzes the development of this governance strategy into the dominating approach of the OECD as well as its connection to the theory of human capital. To analyze the diffusion and uses of the concept of competence, the paper will also analyze the role of the OECD and its networks as a global educational player and as a conceptual innovator.

The framework of the analysis is based on the conceptual historical theory of Quentin Skinner (1989). It studies political changes by analyzing the changes

in political language and its concepts. Skinner asks about the intensions of the innovators who introduce new concepts as well as the sources from which they draw these concepts. The use of this kind of approach is justified because the OECD project cannot be analyzed as a pedagogical or curriculum-theoretical phenomenon. It is a part of the development of a governance strategy based on comparative measurement, which intends to create foundations for national education policies, give recommendations to member and client countries, and to direct educational policy internationally (Mahon & McBribe, 2009; Kamens, 2013).

The data of my analyses comprise the published documents of the DeSeCO project (Rychen & Salganik, 2001, 2003a) and of the OECD's Learning Framework 2030 (OECD, 2018a, 2019a), complementary sources from the OECD (Ananiadou & Claro, 2009; Schleicher, 2008) as well as journal articles that deal with the DeSeCo project and the concept of competence. Second, I used recent critical literature that deals with the position of the OECD as an educational policy player, its framework of comparative measurement and the PISA studies (Mahon & McBribe, 2008; Meyer & Benavot, 2013; Morris, 2016; Auld & Morris 2021). Specifically, I tried to select literature that elucidates the background and emergence of the OECD's position as an educational political player and its philosophy of governance.

The paper starts by studying the emergence of the framework of comparative measurement in early curriculum theory and in the educational policy of the US and its transfer into the developmental philosophy of the OECD. This framework requires a definition of competencies that is used worldwide and is independent of local cultures, national curricula and fields of knowledge. The paper examines the connection of the OECD's educational policy to the development of the theory of human capital and evaluates the role of the OECD and its networks as an educational policy agent and a global think tank. The PISA study is analyzed as a step towards the concept of competence. After that, the paper introduces the concept of competence from the DeSeCo project and evaluates its understanding of the 21st-century world. It then evaluates the OECD Learning Framework 2030 and its concept of transformative competence. The conclusions summarize the nature of the OECD's educational policy and the rhetoric connected to it, as well as address some of the limitations of the concept of competence, such as the separation of knowledge contents and thought. It also briefly outlines alternative ways of responding to the challenges of the 21st-century.

The historical roots of comparative measurement

The meaning of the term competence needs be understood as a part of the development of the concepts and practices of school governance. The definition of 21st-century competencies is a part of the global educational policy led by the OECD oriented toward the comparison of the efficiency of national education systems. To allow this, common standards are defined on the knowhow and capabilities of people from different cultures, and means are created for the assessment of the achievement of these standards. The basic assumptions of this governance machinery has formed over a long period (Tröhler, 2014). The idea of governing school and increasing its efficiency through the definition of specific educational goals and by measuring their attainment emerged at the beginning of the 20th century in the curriculum theories of Warret Charters and Franklin Bobbit (Bobbit, 1924). They were inspired by Frederick Taylor's scientific management and behaviorism. In their curriculum theories, the most important tasks of a job were first recognized (task analyses). Then exact behavioral goals were defined for the tasks (the one right way) and measures developed to assess their achievement (Callahan, 1964). As Wayne Au (2011) points out, the evaluation of schools in terms of the results of standardized test scores is a part of the No Child Left Behind Act (NCLB) enacted in the US in 2001. The reform can therefore be regarded as new Taylorism. The states define their goals in terms of test scores. When the school career of pupils, the salaries of the teachers and the funding of schools is tied to success in these tests (high-stakes testing), they start to direct the teaching and learning in the school. The unintended consequences of this influence include among others, learning and teaching for tests, the narrowing of the curriculum, the dominance of remembering and specific skills, the displacement of locally important content and a marked decrease in teaching experiments and developmental work (Nichols & Berliner, 2007; Ravitch, 2010).

Another source for the development of the comparative measurement approach are the educational policy measures caused by the so called Sputnik shock in the US. In October of 1957, the Soviet Union sent a satellite to Earth's orbit. The event caused a widely felt fear that the country was lagging behind the Soviet Union in scientific and technological development. In 1958 the National Defense Education Act was passed. It raised education into a key issue of national military and security policies. It removed the initiative of the development of curricula from school districts and states to project groups

composed of scientists and educational technologists funded at the federal level. The justifications of the law declare: "The Congress hereby finds and declares that the security of the nation requires the fullest development of the mental resources and technical skills of its young men and women" (Tröhler, 2010, p. 9). The governance of the federal state was still based on inputs: the specialist groups produced packages of physics, biology, mathematics and foreign language material to be used in schools.

However, the federal government could not be sure what type of results these inputs would be able to achieve. According to the US constitution, the power of decision of the curriculum belongs to the school districts and elected school boards. To solve this problem, the idea of comparative measurement as a means of governance emerged. The focus of the governance moved from the inputs to the curriculum to the measurement of test results. School boards preserved their independence, but specialists defined the minimum standards in certain areas (reading and writing, mathematics, natural sciences), the achievement of which was measured by national tests (Tröhler, 2013, p. 150). In 1964 the National Assessment of Educational Progress (NAEP) began to function, through which the federal government followed and controlled the development of learning outcomes. This centralized comparison of learning results later became the foundation of the OECD's PISA test and its educational governance (Martens, 2007, p. 45).

The Centre for Educational Research and Innovation (CERI) of the OECD was established in 1961. At the beginning of the 1980s the greatest funder of the OECD and CERI, the US, suggested that the OECD should start collecting comparative international data of the inputs (educational investments) and outputs (learning outcomes) of educational systems. Not all researchers and evaluation specialists found this idea to be well-founded because the circumstances, resources, cultural traditions and school systems of different counties vary greatly (Tröhler, 2013). For example, an early pioneer of the evaluation of school achievement, the Swedish educational scientist Torsten Husén, was more interested in the way in which different institutional and pedagogical arrangements influence learning results (Kamens, 2013, p. 120). Pressured by the US and France, with national evaluation institutes, CERI created an indicator system, on the basis of which CERI started in 1992 to produce the comparative report Education at Glance (Martens, 2007, p. 46).

Human capital as the key issue of economic growth

1n the 1960s, the theory of human capital made a breakthrough in economic theory (Gillies, 2014). According to it, education has a decisive influence both in the career and economic success of individuals and in the economic growth of a society. The OECD adopted this theory and set the goal of integrating economic and educational policies. The OECD report from 1962 stated that "investments in what is called 'human capital' – out of which investments in formal education constitute a major part – might be the main source of the unexpected part of the actual economic growth in most countries" (Tröhler, 2014, p. 12).

According to Kjell Rubensonin (2008, p. 252), in the 1970s and 1980s the OECD adopted the second generation of human capital theory. The first generation focused on the connection between the level of education of a population and economic growth. It wanted to raise the educational level of populations by enlarging the educational systems. The new generation focused on individual characteristics that were regarded as important for technological change, the growth of productivity and innovativeness. These characteristics included flexibility, the ability to find employment, creativity, self-reliance and the capacity for life-long learning. The premises of this turn were presented in the OECD's Education and Economy in the Changing Society report (OECD, 1989). The requirements of flexibility, initiative and self-control proposed by the second generation of human capital theory constituted an important foundation for the definition of 21st-century skills.

In recent years, political scientists and educational sociologists have analyzed the OECD and its networks as an influential transnational agent that has taken the initiative in the direction of educational policy (Porter & Webb, 2008; Rinne, 2008; Meyer, 2014). As a think tank that gives political recommendations, the OECD is unique in terms of its size and resources. It has 700 specialists (economists, lawyers etc.) in the secretariat of the organization and an assisting stuff of 1600 people. A total of 40,000 representatives of national governments participate annually in meetings of OECD committees and working groups. Institutions that specialize in the evaluation of education, consultancy firms and specialists from the member countries contribute to the programs, data collection and the writing of reports. With the OECD secretariat and representatives of national governments, they constitute a network, through which the results are transmitted to the member countries. The OECD reports and recommendations have a strong reputation as scientifically reliable sources for policy making.

Because the OECD cannot give instructions or orders to national governments, it resorts to "soft" instruments of power, to standards and indicators, comparative reports and league tables based on them as well as policy recommendations.

Heinz-Dieter Meyer, a professor at the State University of New York, characterizes the changed status of the OECD as follows (2014, p. 7): "With its dramatically increasing fleet of surveys and assessments the OECD is clearly on its way to become the world's most influential educational authority, as its rankings, reports, and analyses become the key data to orient policy making in member nations." He finds that this development includes a division of power that limits democracy (Meyer, 2014, p. 2): "The new accountability regime pivoting on OECD and PISA represents a shift in the balance of power and control of public education – from democratically constituted national governments to an international policy organization that seems to many beyond the reach of democratic control." The comparative evaluation of the countries requires standards, in relation to which the learning results are evaluated. Their definitions create categories which are used to make sense of reality and influence our conceptions of the human characteristics considered important in the changing world. According to Meyer, in the middle of the 1990s, the OECD adopted a neoliberal ideology. In its Governance in Transition report (OECD, 1995), it states that public administrations should increasingly resort to market mechanisms. The measurement and comparison of the learning outcomes of schools is a means for parents to choose the school, creating a foundation for the formation of school markets. Meyer concludes his critique by stating: "The irony of OECD's campaign in education is thus that it raises serious issues about the accountability of OECD as an institution of global governance itself. To redress the asymmetries between strong influence and weak democratic control will require profound advances in the organization of the global public sphere" (Meyer, 2014, p. 18).

In May 2014, 83 professors of education and representatives of national school systems published an open letter to the director of the OECD's PISA program, Andreas Schleicher in The Guardian newspaper (Andrews et al., 2014) The letter was entitled "The OECD and PISA tests are damaging education worldwide". The signatories wondered why the OECD has "assumed the power to shape education policy around the world." They find that unlike United Nations organizations such as UNESCO or UNICEF that have clear and legitimate mandates to improve education and the lives of children around the

world, the OECD has no such mandate. They believe that the preparation process of tests is not open and democratic. They find that PISA emphasizes a narrow range of measurable aspects of learning, which "takes attention away from less measurable or immeasurable educational objectives like physical, moral, civic and artistic development." In this way it narrows down and impoverishes our understanding of what education is and ought to be. The signatories also maintained that the groups that have had the greatest influence on the OECD assessment are psychometricians, statisticians and economists, and argued for more participation from educators, parents and scholars from the social sciences, history, philosophy, linguistics and the arts and humanities.

PISA as a step towards the concept of competence

A significant achievement of the OECD's educational policy is the PISA assessment (Programme for International Student Assessment), which compares the learning outcomes of 15-year-old students from different countries. According to the director of the PISA enterprise Andreas Schleicher (2007, p. 349), the competencies that PISA assesses are 'highly predictive for the future success of the students.' He further states (Ibid., 350) that "In a modern world, comparative assessments are an essential tool for educational improvement and research shows that the existence of standardized assessments and examinations is one of the most powerful predictors for the success of an education system." He proudly declares that (ibid., 350) "PISA has become the most advanced and comprehensive international assessment to date, capturing roughly nine-tenths of the world economy."

Thanks to PISA, the OECD and its directorate of education has become perhaps the most influential player in international education policy (Porter & Webb, 2008; Rubenson, 2008; Grek, 2009). The specialist groups that prepared PISA worked to find test tasks that measure students' ability to use their skills in reading, writing, mathematics and the natural sciences to cope with the challenges of the world outside the school. Instead of remembering facts from the textbook, students are asked to interpret graphs, statistics and different kinds of short texts dealing topics such as graffiti, sporting injuries, the opening times of libraries, the greenhouse effect and the emergence of acid rain. They are asked to calculate the velocity of racing cars, the decline of exchange rates or the area of the Antarctic (OECD, 2009). In most cases the answers to the tasks are selected from five given alternatives. In setting the goal of measuring the

capacity of 15-year-old students to cope with the challenges of adult life after school, PISA took a step towards the concept of competence. PISA (OECD, 2001, p. 27) "provides international comparisons of performance of education systems, with strong, cross-culturally valid measures of competencies that are relevant to everyday, adult life. Assessments that test only the mastery of school curriculum can offer a measure of the internal efficiency of school systems. They do not reveal how effectively schools prepare students for life after they have completed their formal education."

The principle of PISA is to detach the assessment from the curriculum and the subject content-centered evaluation. Instead, the intention with PISA is to develop tasks that measure the application of school knowledge to 'real-life challenges' (OECD, 2001, p. 16). PISA or other OECD documents do not provide tangible analyses reflecting the nature of 'real life'. They tend to characterize it at a general level as a knowledge economy in which information technologies are widely used. In such a world, following the metaphor of cognitive psychology, an individual acts as a processor of information (Schleicher 2008, p. 636): "The competencies of individuals and populations in assessing, managing, integrating, evaluating and constructing information, using the technologies of the information age, will have far-reaching micro- and macro-level economic and social impacts." This alleged future world is at the same time a political goal.

Professor of education at the University of Vienna Daniel Tröhler (2013, p. 154) points out that PISA is abstracted out and separate from both the empirical reality of cultural variability and curricula. "PISA does not ask how students master their own lives but speculates about the mastery of a future life" (Tröhler, 2011, p. 253). Tröhler has pondered the challenges in the life of a 15-year-old student. He believes that these challenges are related to the search for one's own identity, recognition from peers and family problems. They are hardly related to a future position in the labor market or the demands of a career. By detaching from the contents of school teaching and postulating future challenges, PISA measures something that possibly does not exist and does not measure what is taught in the school.

Richard Münch, professor of sociology of Otto-Friedrich University of Bamburg finds that PISA serves the production of human capital, that is, the success of individuals and the competitiveness of a nation (2014, p. 3): "The new model of education as human capital is embedded in the world view that

sees society as ‘knowledge society’ which has to adjust to a ‘knowledge based’ economy in ever fiercer international competition.” According to David Larabee, a professor of education from Stanford University (2014, p. 10), “Both PISA and NCLB represent a radically reductionist vision of education. They both reduce education to learning to a small subset of knowledge and skill that is seen to be economically relevant. In the end, they both conceive education simply as the efficient production of economically useful skills.”

PISA and OECD documents do not ponder whether there are good grounds for postulating a shared way of life with similar requirements for all countries, societies and the different social groups within them. An alternative to centralized comparative assessment would be to recognize the political and cultural differences of countries, to abandon the development of a worldwide comparative measurement of learning outcomes, to allow differences between national curricula and evaluation systems and to advance interaction and dialogue between countries, schools and teachers.

The OECD assumes that the PISA results and the league tables based on them can be used as means of political decision making (OECD, 2001, p. 27): “PISA provides a new approach to considering school outcomes using as its evidence base the experiences of students across the world rather than in the specific context of a single country. The international context allows policy-makers to question assumptions about the quality of their own country’s educational outcomes.” The league tables enable recognizing the countries that have succeeded well and the less successful countries can learn from the “best practices” of the school systems of the champions.

However, the PISA scores do not provide an explanation of why the educational systems of different countries are better or worse. According to many evaluations, factors outside the school, such as the social and economic position of the children and the quality their home and environment explain most of the score variation (Berliner, 2018, p. 150). School success and learning are also based on the quality and contribution of many other social institutions, such as the library system, day care, maternity and family care, and the music school system. These institutional “reasons” are complex outcomes of decades of development in specific circumstances, and for this reason they cannot be adopted as such in other countries (Miettinen, 2013, pp. 139-142). It is possible to learn about their organizing principles and use them as stimuluses and elements in a local institutional reconstruction. The editors of a book on PISA

(Meyer & Benavot, 2013, p. 15) found a paradox in the fact that PISA results have been used to substantiate very different kinds of policy measures.

The OECD's DeSeCo project defines the concept of competence

The goal of the OECD's DeSeCo project (1997-2002) was to define 21st-century competencies and to create a theoretical framework for the development of indicators within the OECD. The starting point was the concern that separate indicators had been developed in the short-term without a holistic view (Salganik, 2001, p. 28). The goal of the project was to expand the instruments of evaluation and adjust them to measure more consequently the key capabilities that young people will need in the society and labor market of future decades. Whereas PISA measured the mastery of reading, writing, mathematics and natural sciences, the project wanted to enlarge the focus of the definition to "those skills and competencies that young people will be required to have in order to be effective workers and citizens in the knowledge society of the 21st-century" (Ananiadou & Claro, 2009, p. 8).

The DeSeCO project used discussions and negotiations to achieve an agreement and joint definition of 21st-century competencies. The project invited specialists to two conferences to discuss the concept of competence. A book was published based on the contributions from both conferences: Defining and selecting key competencies (Rychen & Salganick, 2001) and Key competencies for successful life and well-functioning society (Rychen & Salganick, 2003a). In addition, the project produced two kinds of report: 1) an account of how the skills and competencies had been defined in the previous OECD evaluation and measurement projects, 2) country-specific reports on the characterizations of competencies included in the educational political documents and curricula of the member states. DeSeCo defined nine 21st-century competencies (see Table 1). They were divided into three groups or baskets: using tools interactively (including ICT technologies), interacting in heterogenuous groups (social competencies) and acting autonomously which comprise the competencies of self-regulation.

Table 1.

OECD:s 21st-century competencies (OECD, 2005)

1.USING TOOLS INTERACTIVELY
1-A The ability to use language, symbols and texts interactively
1-B The ability to use knowledge and information interactively
1-C The ability to use technology interactively

2.INTERACTING IN HETEROGENUOUS GROUPS
2-A The ability to relate well to others
2-B The ability to cooperate
2-C The ability to manage and resolve conflicts

3.ACTING AUTONOMOUSLY
3-A The ability to act within the big picture
3-B To form and conduct life plans and personal projects
3-C To defend and assert rights, interests, limits and needs

The directors of the project were Dominique Rychen from the Swiss Federal Statistic Office and Laura Salganick from the US-based the Education Statistics Service Institute. They defined the holistic concept of competence as follows (2003b, pp. 46-47):

> "The understanding of the model of competence adopted by DeSeCo is holistic and dynamic in that it combines complex demands, psychosocial requisites (including cognitive, motivational, ethical, volitional, and social components), and the context into a complex system that makes competent performance or effective action possible. Thus, competencies do not exist independently of action and context. Instead they are conceptualized in relation to demands and actualized by actions (which imply intentions, reasons and goals) taken by individuals in a particular situation."

The holistic model is demand and requirement oriented (ibid., p. 52): "With regard to such demands as 'cooperate with others' or 'use of technology or information effectively' we would evoke the term competence rather than skill, assuming – from a holistic perspective – that a range of mental prerequisites needs to be mobilized." The executive summary of the project specifies the relationship between skill and competence as follows (OECD, 2005, p. 4): "For example the ability to communicate effectively, is a competency that may draw on individual's knowledge of language, practical IT skills and attitudes towards those with whom he or she is communicating." This holistic model of

competence has been interpreted by saying that it refers to 'metacognition' or 'a higher order of mental complexity' (Crick, 2008, p. 313).

The inclusion of knowledge, skills and attitudes in the competence concept became the kernel of the OECD's framework for the development and evaluation of education (OECD, 2016, p. 2). However, the inclusion of these elements into the concept of competence does not explain the way in which they are interrelated and how they can be activated in teaching. The most common way of taking them into account in curriculum making has been the use of taxonomies of goals exemplified by Bloom's taxonomy (Bloom, 1956), in which the goals are defined separately for knowledge, skills and attitudes. What unites the languages of competence and Bloom's taxonomy is their belief that their terminology is usable independently of the contents, level of education or cultural context (Bloom, 1956, p. 12):

> "This taxonomy is designed to be a classification of the student behaviors which represent the intended outcomes of the educational process. It is assumed that essentially the same classes of behavior may be observed in the usual range of subject-matter content, at different levels of education (elementary, high school, college), and in different schools. Thus, a single set of classifications should be applicable in all these instances."

An essential criterion for the definition of "key competencies" is that they are relevant in different fields of life and important to all people (Rychen & Salganik 2003b, p. 54). But is it possible or well-founded to define a set of competencies that is relevant in societies of all types, in different fields of life and activities, in different occupations and social positions? In the first DeSeCo conference, historian John Carson and anthropologist James Goody presented a skeptical position. Carson (2001) had studied the history of intelligence and the tests used to measure it. According to him, the lesson of this history was that an attempt to define and measure the 'ideal characteristics' of humans living in all cultures and circumstances, excludes the specific features of communities and easily leads to discrimination against deviant groups. According to James Goody, emeritus professor of social anthropology at Cambridge University, an attempt to define a list of competencies required by contemporary European life 'is only possible at a very general level, which I regard as rather useless' (Goody, 2001, p. 188).

The third basket of the DeSeCO competence framework was acting

autonomously (see Table 1). Its final, ninth competence comprises the individual's capability in understanding and defending their own interests (OECD, 2005, p. 15). It is a crystallization of the idea of the human of economic liberalism. For it responsibility for the common good and duties towards others remain marginal.

Extension of PISA, the 'humanistic turn' in the OECD's educational policy and transformative competencies

In the 2010s, the OECD expanded its program of comparative measurement to cover all age groups (PIAAC, survey of adult skills and ECEC, survey of early childhood skills), and made it available to low- and middle-income countries (PISA for development). It created a PISA version used in the evaluation of the quality of learning in single schools (PISA-based test for schools) and extended PISA measurements to competencies for globalization as well as to "socio-emotional" and transformative competencies (OECD, 2018a; Sellar & Lingard, 2014). Behind this expansion was the OECD's strategy of transforming PISA into a truly global leaning metric and a barometer of economic and social development (Xiaomin & Auld, 2020, p. 515).

According to Andreas Schleicher (2008, p. 630) the assessment of adult competencies in the Programme for the International Assessment of Adult Competencies (PIAAC) "will offer a far more complete and nuanced picture of the stock of human capital than has yet been available to policy makers in most countries." It also "will permit the development of a more precise quantitative analysis of the role of education in generating economy-wide increases in productivity" (Schleicher, 2008, p. 641). A step in the extension of the OECD's comparative measurement was a project for the measurement of the competencies of small children aged 4.5–5.5 years (ECEC, Early Childhood Education and Care) which was implemented in 2015. Researchers of early childhood education have expressed their concern about the ECEC's tendency to regard itself as an "early childhood PISA" that should contribute to the improvement of PISA scores and to the development of competencies. It tends to regard play, arts and literature as 'wasteful activities' (Urban, 2018, p. 95). Opposing this view, many theories of child development (Vygotsky, 2016) find play to be the most important activity of young children, because it develops their imagination, creativity and sociality and prepares them for school.

The OECD started in the early 2010s to develop measures for "global competencies" (Auld & Morris, 2019; Robertson, 2021). They were included in the 2018 PISA framework. This initiative grew into a part of a 'humanitarian turn' of the OECD's educational strategy (Xiamin & Auld, 2020) and into a part of the OECD's Learning Framework 2030 (OECD, 2018a). In 2015, the United Nation member countries committed to achieving 17 Sustainable Development Goals (SDGs), which constitutes a kind of shared vision for humanity. The OECD's Learning Framework 2030 adopted several goals from SDGs including global welfare and sustainability. Andreas Schleicher explained that "The extent to which that vision (of sustainable development R. M.) becomes a reality will depend on today's classroom. … This has inspired the OECD's PISA, the global yardstick for educational success, to include global competence in its metrics of quality, equity and effectiveness in education" (OECD, 2018b, p. 2).

Until the mid-2010s, the key argument of the OECD had been that the PISA test scores constitute a measure of quality of education, which in turn is a key factor affecting economic growth. Once this causal connection between PISA measures and economic growth was refuted by several scholars (Kamens, 2015; Komatsu & Rappleye, 2017), in its Future of Education and Skills 2030 project, the OECD started to align its goals to SDGs (OECD, 2019a, p. 9):

> "The framework can serve as a common language to build a shared understanding - from local to the global level – that every learner, no matter of his or her age or background, can develop as a whole person, fulfill his or her potential, and participate in shaping a future that improves the well-being of individuals, communities and the planet."

A starting point for the OECD Learning Framework 2030 was to recognize the competencies that are vital for the adaptation to an unpredictable future. These competencies in the 2030 Framework are the competence for globalization and three transformative competencies (OECD, 2019b): creating new value, reconciling tensions and dilemmas, and taking responsibility. The extension of measurement from cognitive skills (reading, mathematics, natural sciences) to these competencies, socio-emotional personality traits and values create both conceptual and operational difficulties (Auld & Morris, 2019). A basic question is whether it is possible and justified to measure the development of the whole personality, well-being, happiness, a value orientation, or a religious or political conviction of an individual. Can or should these individual qualities meet any

global standard, or should they differ based on national cultures, local traditions and world views? Instead, do we need a dialogue within cultural diversity rather than unifying global standards for individuals?

The OECD's suggestion for transformative competencies is based on a questionable attempt to solve global problems and transform social structures by changing individual traits. The solution of global problems calls for political measures, institutional reforms, international contracts and reliance in scientific knowledge and large-scale collaboration. A new boundary crossing agency needed for this is exemplified by the Intergovernmental Panel on Climate Change (IPPC). Thousands of scientists participate in summarizing what is known about climate change and with the representatives of governments, they make suggestions about solving the problems (Paglia & Parker, 2020). These suggestions have also been a basis for activity and demands of the global climate movement of schoolchildren.

The OECD Learning Framework 2030 suggests that the transformative competencies (as part of the Learning Compass) can provide a globally shared language for education and can be incorporated into existing curricula and pedagogy (OECD, 2019a, p. 4). This expresses the OECD's intention to become a champion in defining the global educational policy. However, there is a risk that the definition of curriculum goals in terms of competencies will turn into a new vocabulary of hoping. Everything that is recognized as being important and good is formulated in terms of competencies of individuals. Philosopher of education John Dewey (1988[1922], p. 22) characterized such a development as follows: "The principle of magic is found whenever it is hoped to get results without intelligent control of means." A distinguished American historian of curriculum, Herbert Kliebart (1970) pointed out in commenting the early 1900s century curriculum framework based on the definition and measurement of learning outcomes inspired by behaviorism and Taylorism: no contents or pedagogical methods can be drawn from external goal formulations.

Conclusions

Many researchers of educational policy have stated that the OECD with its networks has become the leading international agent in educational policy. It has an exceptional ability to function as a conceptual innovator. Through its projects, the OECD ties the representatives of national governments to its

work and employs researchers as subcontractors. In this way it can effectively distribute its framework internationally. An expression of the OECD's influence and its role as a forerunner is the fact that both the big ICT firms and the EU have launched their own projects for the definition of 21st-century competencies (Voogt & Pareja-Roblin, 2012). The newest partners of the OECD network are consultancy firms such as McKinsey, Pearson and the Grattan Institute (Morris, 2016). They provide national states with services for developing entire educational systems. In 2014, Pearson, the world's largest educational firm, was contracted by the OECD to develop the framework for the PISA 2018 study.

The OECD's knowledge production conventions and styles of presentation differ from those of academic practices. The OECD list of competencies (like the EU's lists of key competencies) is published as a short political document without references. This is also the case in the publication of the OECD Learning Framework 2030 (OECD, 2018a) and the OECD Leaning Compass (OECD, 2019a). The widely cited definition of the concept of competence by the directors of the DeSeCo project, A holistic model of competence (Rychen & Salganik, 2003b), does not refer to a single peer-reviewed scientific paper. In a way that is characteristic of many OECD documents, it mainly refers to previous publications of the project, to unpublished country reports or to other OECD publications (cf. Miettinen, 2002, p. 30; Tröhler, 2014, p. 12).

Several scholars have analyzed the rhetoric related to the use of PISA results in educational policy and in the development of school systems (Alexander, 2010; Morris, 2016; Auld & Morris, 2021). The main task of education is to contribute to economic development, which corresponds to the mission of the OECD and is derived from the theory of human capital. When this starting point is connected to the idea of the measurement of learning outcomes, statements like the following emerge: "If all 15-year-olds in the OECD area attained at least PISA Level 2 in math, they would contribute USD 200 trillion in additional economic output over their working lives" (Schleicher, 2012, p. 1). In the rhetoric, the educational systems of the countries that are at the top of the league tables represent 'world class education' and leadership. The tables laggards or crisis countries can be developed by basing their systems on the best practices of the top countries.

What could be an alternative to the OECD-led, competence-based approach to education? Although an elaborate answer to this question is beyond the scope of this paper, three suggestions can be presented: 1) fostering the unique national

and local curriculum and evaluation policies and cultures instead of unifying them using abstract global standards, 2) adopting the North-European *Bildung*-based curriculum approach instead of the Anglo-American model based on the measurement of student achievements (Westbury et al., 2000), and 3) developing the collaboration of schools with other schools, local communities, researchers and civil society organizations.

In the North-European discussions several researchers have suggested that the concept of competence is replacing the concept of *Bildung* as a basic concept of educational theory (Hamann, 2011; Horlacher, 2012; Willbergh, 2015). The comparison of these two concepts helps to make visible the transition occurring in educational thinking. The foundation of the modern European concept of *Bildung* was the enlightenment of the 18th century and the German idealistic philosophy represented among others by Johann Gottlieb Herder (1744-1804), Immanuel Kant (1724-1804) and G. W. F. Hegel (1780-1831). According to this conception, *Bildung* is the growth of an individual into an independently thinking moral subject, into an autonomous agent who is aware of her of his rights and duties as a citizen and a member of society. It strongly underlines the moral agency of an individual, that is, her contribution to the formation and maintenance of societal values and norms as well as to the common good of the society (e.g. to an ethical world order). *Bildung* is regarded as a fundamental foundation of freedom, democracy and equality.

The elements of the German and Nordic *Bildung*-based approach to education includes at least four basic premises (Klafki, 2000; Jessop, 2012; Willbergh, 2015). First, *Bildung* (self-formation) means development of intellectual and moral autonomy of an individual, which allow him or her to participate as a responsible citizen within a democratic state (Biesta, 2002). Second, this can only be achieved by critically adopting and developing further the cultural tradition of the humanity. It comprises national and local cultures and increasingly also the achievements of transnational scientific, artistic and professional communities. Third, *Bildung* means to be able to recognize the key problems and challenges of the era (today e.g., climate change and the degradation of biodiversity) and willingness to contribute to their solution. According to Finnish philosopher Johann Snellman (1806-1881) *Bildung* means ‘commitment to the solution of the burning problems and tasks of the human culture, whatever they might be’ (Ojanen, 2008, p. 80). New values and ideas must be realized and ‘objectified’ in the social institutions, laws and habits. In

this sense, *Bildung* is a process of both individual and social transformation. Forth, there is a dialectic relationship between national and universal (Snellman, 2002[1846]): a national culture can only develop in dialogue with other cultures and the construction of a national culture contributes to the development of a common human culture.

In curriculum design and teaching, the *Bildung*-based approach focuses on the relationship between global and local problems and the knowledge contents (concepts) the use of which makes the solution of these problems more likely or possible, rather than on individual competencies or imagined futures. This includes the conversion of scientific and professional knowledge (theoretical concepts) into pedagogical content knowledge as well as construction of innovative pedagogical solutions, such as collaborative projects that meet the local circumstances and concerns. In dealing with the big challenges of humanity and their local manifestations, co-learning or distributed learning becomes ever more important; i.e., collaboration between schools, local communities, researchers, professionals, civil society organizations and social movements.

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