



EVIDENCE-BASED EDUCATION IN DISCOURSE AROUND THE CONCEPT OF *BILDUNG*

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Abstract/Izvlaček

The aim of this study lies in the use of theoretically comparative and historically methodological approaches to elaborate, compare, and recapitulate the features, history and the relationship of evidence-based education and the concept of *Bildung*. The relationship of the continental European didactic and Anglo-American curricular tradition, as well as to the meaning of teacher autonomy and (inter)national external evaluations of student achievements will be given special attention. Evidence-based education degrades teacher autonomy. Constituting the synergy of these two concepts can be considered the contemporary Holy Grail of education, which will probably not be found in the theoretical-methodological differences.

Keywords:

didactics, curriculum,
education policy,
history of education,
teacher autonomy.

Na dokazih temelječe izobraževanje in koncept *Bildung*

Namen prispevka je z uporabo teoretično primerjalnih in zgodovinsko metodoloških pristopov obdelati, primerjati in povzeti značilnosti, zgodovino in odnos na dokazih temelječega izobraževanja in koncepta *Bildung*. Posebna pozornost bo namenjena razmerju med kontinentalno evropsko didaktično in anglo-ameriško kurikularno tradicijo ter pomenu učiteljeve avtonomije in (med)nacionalnega zunanjega vrednotenja dosežkov učencev. Na dokazih temelječe izobraževanje zmanjšuje avtonomijo učiteljev. Iskanje sinergije med omenjenima konceptoma lahko štejemo za sodobni sveti gral izobraževanja, ki ga najverjetneje ne bomo našli v teoretično-metodoloških razhajanjih.

Ključne besede:

didaktika, kurikulum,
izobraževalna politika,
zgodovina
izobraževanja,
avtonomija učitelja.

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Introduction

In the last few decades, the educational process has been dominated by (inter)national standardized evaluations of student achievements, as well as the subsequent discussions (Pettersson, Popkewitz, and Lindblad, 2017; Sahlberg, 2021). Therefore, we can talk about establishing a theory of evaluation (Rømer, 2018) that nurtures standardization and the quantitative measurability of student achievements in a behaviouristic manner (Pettersson et al., 2017; Sahlberg, 2021). Recent (inter)national external evaluations are based on the commercialization, psychologization, globalization and standardization of education established during the Cold War (Sahlberg, 2021; Topolovčan and Dubovicki, 2019). The repercussions of such standardized evaluation and quantitative research over the past thirty years have been seen as evidence-based practice, which is evidence-based education, evidence-based profession, evidence-based education policy (Biesta, 2007, 2010; Bridges, Smeyers and Smith, 2010; Hammersley, 2005; Smeyers and Depaepe, 2006). On the other hand, as with the Phoenix bird itself, continental and northern Europe is renewing interest in the concept of *Bildung*, which in no way diminishes the significance of the curriculum (Autio, 2017; Herdt, 2019; Horlacher, 2016; Krogh, Qvortrup, and Graf, 2021; Krogh et al., 2023). In fact, curriculum studies and the didactic tradition are equally represented. There are similarities between didactic approaches, i.e., the *Bildung* tradition, and the Anglo-American curricular approach to education; however, there are undeniable theoretical and practical differences, as well (Gundem and Hopmann, 2002; Krogh et al., 2021). The first attempt a systematic comparison of the two traditions was initiated by an international group of educational science experts in the early 1990s within the international project “Didaktik meets Curriculum” (Gundem and Hopmann, 2002). Interest in a comparison of the two traditions is still alive today (Krogh et al., 2021; Krogh et al., 2023).

Having acknowledged the rise in evidence-based education, and the renewed interest in the concept of *Bildung*, the aim of this study, in the perspective of a theoretical-comparative and historical methodological approach, is to elaborate, compare and recapitulate these phenomena. The genesis and characteristics of evidence-based education and the concept of *Bildung* will be analysed, as well as their manifestations in school practice, with special reference to the development of the didactic tradition in central and northern Europe and the curriculum approach in the USA.

In analysing the Bildung concept, special attention was paid to its focus on teacher autonomy. The focus of the study encompasses the collateral side-effects of evidence-based education, especially in light of the relationship between practitioners, education policy makers and educational research, as well as standardized external evaluations. The resulting data can offer (re)definitions, descriptions, and classifications of these concepts and their scientific understanding. This forms an explanation of the relationship, and (re)definition of educational, didactic and curriculum theory.

The German tradition of Bildung

The Bildung concept, which was historically dominant in central and northern Europe is not a coherent concept (Autio, 2017). The word Bildung is of German origin, and translated literally, it means “education”, which is, however, a rudimentary translation, because it does not include its complex theoretical and linguistic meaning. Its translation is, therefore, avoided, and the original form is used in foreign languages, as well as for the terms Didaktik and curriculum (Gundem and Hopmann, 2002). Bildung can be defined as the forming of an autonomous, complete, free, emancipated, (self-)critical and (self-)reflective individual capable of moral and cultural action (Terhart, 2022). The history of the Bildung concept is intriguing. It appeared during the Enlightenment (Herdt, 2019; Horlacher, 2016). The term was first used in an educational context in 1745 by the Swiss philosopher Johann Georg Sulzer, and as a theory of education proposed by Johann Gottfried Herder based on religion, i.e., the Protestant movement of Pietism (Herdt, 2019; Horlacher, 2016). The central notions of Bildung comprise freedom and autonomy and have their genesis in the libertarian pedagogical ideas of Jean-Jacques Rousseau (1712-1778) and his book *Emile or on Education* from 1762 (Autio, 2017). *Emile* marks a historical dividing the old in pedagogy, before its publication, and the new, after its publication (Tröhler, 2011). Rousseau defines freedom as a desirable personal, social, and civic virtue. The intellectual history of the Bildung concept was formed in the moral philosophy of Immanuel Kant (1724-1804), which served as the point of distinction between the German didactic Bildung tradition and the anglophone psychologized concept of curriculum (Autio, 2017).

Kant's definition of free will is a component of morality, which is characteristic of the northern European educational tradition of having the teacher as an autonomous professional in teaching. The concept of *Bildung* has cognitive, aesthetic, and practical elements of the teaching as educational, because these are morally decided as relevant in the teaching content, and worthy of teaching and learning. Wilhelm von Humboldt (1767-1835) was significant for establishing the concept of *Bildung* as Kant's successor with his philosophy (Lundgren, 2015). Von Humboldt's understanding of the concept of *Bildung* is in accordance with Herbart's concept of *Bildsamkeit*. Johann Friedrich Herbart (1776-1841) was also significant for establishing the concept of *Bildung*. Herbart defined *Bildung* as an autonomous, emancipated and morally, culturally, and socially responsible (self-)critical individual formed through the teaching process (education by teaching). An individual formed in this way is not only critical of new knowledge, but also capable of shaping (*Bildsamkeit*) (Lundgren 2015). John Dewey (1859-1952) was also on the trail of the *Bildung* concept with ideas about critical judgment (Biesta, 2007; Römer, 2018). In the USA, by the end of the 19th century, education, just as with Dewey himself, was inspired by Herbart's ideas and pedagogical tack. In discussing Dewey, and thus pragmatism in education, it should be pointed out that pragmatism has two theoretical origins. The first is behavioural psychology, and the second is the process of research (Mead, 1936, as cited in Oelkers, 2004, p. 362). In relation to Wilhelm Wundt, i.e., his student George Herbert Mead (1863-1931), Dewey realized the importance of human science in education (Germ. *Geistwissenschaft*) and the ideas of Wilhelm Dilthey (1833-1911) (Tomlison, 1997). Following the basis of human science, human scientific pedagogy (Germ. *Geisteswissenschaftliche Pädagogik*) was created with representatives Hermann Nohl (1879-1960) and Erich Weniger (1894-1961) (Riquarts and Hopmann, 1995; Oelkers, 2006) from which, together with reform pedagogy (Germ. *Reformpädagogik*), the theory of education and teaching was formed (Germ. *bildungstheoretische Didaktik*) (Riquarts and Hopmann, 1995). The genesis of didactics is connected to Johann Amos Comenius (1592-1670), who wrote *Didactica Magna* in 1632, and Wolfgang Ratke (1571-1635), who wrote *Methodus Didactica* in 1613. Owing to the (counter-)reformation and the Thirty Years' War, this was a turbulent time in Europe. Comenius was especially important to education in Europe at the time, but also in a wider social, cultural, religious, and political context. He was a member of a brotherhood called Czech Brethren, who were supporters of the Hussite movement and reformation (Blankertz, 1982).

Comenius and Ratke used the Latinized word “didactics” of Greek origin (Greek *didaskein*, *didaskalos*, *didaskaleion*, *didaktike tehne*) (Riquarts and Hopmann, 1995) since Latin was the official language of the social establishment of the time. In Comenius’s statement that everybody needs to be taught everything, one can see a silhouette of the didactic triangle: teach (teacher), everybody (student) and everything (content), which is the basis of the didactic Bildung tradition.

Teacher autonomy is the manifestation of the Bildung concept in school practice (Heinrich, 2015; Terhart, 2002), and it first appeared in the 18th century with the ideas of Rousseau and Johann Heinrich Pestalozzi (1746-1827) about the autonomy of a child (Heinrich, 2015). The word autonomy comes from the Latin word “*autonomos*,” which means possessing one’s own rules and regulations, and in professions it is defined as an individual or group possibility of self-governance, management, and limitation (Wermke and Salokangas, 2015, p. 1). The concepts of Bildung and Didaktik differ from the Anglo-American curricular tradition in regards to accepting the teaching content in education (Autio, 2017; Gundem and Hopmann, 2002; Lundgren, 2015; Terhart, 2002). The Anglo-American curricular tradition focuses on operationalized learning outcomes and student learning activities, while the teaching content and its legitimization in the curriculum are important to the didactic tradition (Lundgren, 2015; Terhart, 2002). The teaching content is the didactic essence of the Bildung concept. Therefore, teachers in the European didactic tradition, because of their own education, are entrusted to design their own teaching (and student learning) of the teaching content with their expertise (Černe, 2022; Lundgren, 2015; Plavšić i Diković, 2022; Terhart, 2002). This constituted teacher autonomy (Heinrich, 2015; Lundgren, 2015; Terhart, 2002). Therefore, the autonomous teaching of the teaching content is a crucial difference between the didactic (Bildung concept) and the curricular approach. Teacher autonomy experienced significant development and establishment in the form of human pedagogy and in the movements and directions of reform pedagogy (Heinrich, 2015). In recent times, teacher autonomy has become a term used globally in research, educational policy, and practice (Wermke and Salokangas, 2015).

Evidence-based education

It is not enough to merely explain the problem of education (German *erklären*), it is also necessary to understand it (German *verstehen*) (Biesta 2020; Smeyers and Smith,

2014). The distinction between the terms explain and understand represents the intersection of quantitative and qualitative approaches to educational research. Scientific explanation in education comes from the natural sciences and is characterized by exactness, measurability, and quantification (Langemann, 2000). Scientific understanding derives from human science and the ideas of Wilhelm Dilthey, and it includes a number of qualitative tools such as hermeneutics, interviewing, systematic observation, and ethnographic, naturalistic, and participatory research. In the last few decades, there has arisen a need for both methodological approaches and their combination (Krmac, 2022; Topolovčan and Dubovicki, 2019). Educational research has increasingly been using methods from the field of future studies (Dubovicki, 2017; Dubovicki and Topolovčan, 2020).

In the last thirty years, a movement called evidence-based practice (evidence-based policy, evidence-based profession) appeared as a mechanism for connecting practice, policy and research in certain professional areas (Biesta, 2007, 2010; Bridges et al., 2010; Hammersley, 2005; Smeyers and Depaepe, 2006). The movement first appeared in the field of medicine in the 1990s (Guyatt et al., 1992). It was later accepted in social work, probation, human resource management and so on (Biesta, 2007). It is defined as a decision-making process and intervention in the practical part of an area based on the results of scientific research (Biesta, 2007, Hammersley, 2005), i.e., as an integration of a) the most reliable available evidence, b) professional judgment and 3) client values (Sackett et al., 2000, as cited in Detrich and Lewis, 2012, p. 214). Its central idea lies in effective intervention and in finding “what works” (Biesta, 2007). The movement of evidence-based practice has become crucial for deciding on a policy of acting at all levels of the professional field (Detrich and Lewis, 2012). In the early 2000s, it also appeared in education (Biesta, 2007; Bridges et al., 2010; Detrich and Lewis, 2012; Smeyers and Depaepe, 2006) in the form of evidence-based education. Evidence-based education draws data from empirical research and meta-analyses for decisions linking researchers, policy makers and practitioners in schools (Simpson, 2018; Wrigley, 2018). Additionally, it is present within education policy and standardized (inter)national evaluations, i.e., international large-scale assessment (ILSA) (Pettersson et al., 2017). This refers to evaluations such as PISA, TIMSS, PIRSL, etc. (Pettersson et al., 2017). Such international external evaluations are not new, seeing that the idea was conceived with the founding of the International Association for the Evaluation of Educational

Achievement (IEA) in 1958 (Hopmann, 2008). Data from such external evaluations provide insight into the level of measured achievement by students, as well as insight into inter-school differences in student achievement. The results of (inter)national evaluations of students are often used in creating national educational policies. The development of evidence-based education is linked to the Anglo-American concept of curriculum. The word curriculum is of Latin origin and comes from the word “currere,” which means to move, and the word “cursus,” which means sequence, trace (Lundgren, 2015, p. 5). It appeared in the Renaissance and was first used by Petrus Ramus (1515-1572) in relation to goals and teaching content (Lundgren, 2015, p. 5). It was later used by Daniel Georgius Morhof (1639-1691), a professor at the University of Rostock (Ballauff and Schaller, 1970, p. 396, as cited in Gudem, 1992, p. 61). The discovery of new continents spread the educational ideas and the term “curriculum.” At the beginning of the 20th century the concept of curriculum was developed in the USA, with Stanley Hall’s student John Franklin Bobbitt (1876-1956) and his book *The Curriculum* (1918) being significant for its development (Lagemann, 2000). At the end of the 1890s and in the first decades of the 20th century, development of the concept of curriculum was also influenced by the ideas of John Dewey. Behaviourist operationalization of learning goals was a powerful mechanism for the formation of the curriculum concept (Ornstein and Hunkins, 2018). The curriculum as we know it today was established in the middle of the 20th century after the Second World War by the work of Ralph W. Tyler (1902-1994) and his rationale, which was the basis for the organization of teaching in the USA, founded on the idea of pragmatism (Topolovčan and Dubovicki, 2019). The reference moment in the development of the dominant curriculum concept is the USSR’s launch of Sputnik in 1957, which caused Sputnik shock in the rest of the democratic and capitalist world, primarily in the USA (Topolovčan and Dubovicki, 2019). This is rightly considered a reference point for accentuating the STEM field in education. Coleman’s report from 1966 and the *Nation at Risk* report from 1983 in the USA with global consequences were both crucial for later (re)forming of the curricular approach (Topolovčan and Dubovicki, 2019). The term curriculum returned to Europe at the end of the 1960s, thanks to the work of the returning emigrant S. B. Rosbisohn.

Discussion: the relationship between the concept of Bildung and evidence-based education

Evidence-based education has its genesis in the Anglo-American concept of curriculum, primarily in the USA and behavioural psychology (Sahlberg, 2021; Topolovčan and Dubovicki, 2019); however, the two are not synonymous. At the end of the 1960s, the concept of curriculum returned to Europe, and approximately simultaneously the intentions of external global evaluations appeared at the end of the 1950s, which provided the impetus for future evidence-based education.

The evidence-based education movement gravitates toward measurability, quantification, exactness, and standardization in education (Bridges et al., 2010). It deals with the transfer of research practice patterns from medicine to education, as well as the application of management patterns from the domain of corporate management (Biesta, 2007, 2010; Tröhler, 2016). The intention of this movement is to find the gold standard for randomized controlled trial that demonstrates the effectiveness of educational procedures beyond a reasonable doubt (Biesta, 2007, p. 5). Evidence-based education is a manifestation of the standardization, psychologization, globalization and economization of education with the intention of reforming national education systems, which represents a technocratic approach to the curriculum (Biesta, 2007; Topolovčan and Dubovicki, 2019) with the repercussion of the degradation of teacher autonomy. Teacher autonomy is an immanent element of the Bildung concept based on the idea of freedom, and it represents the building of a free, autonomous, (self)critical and reflective person (Heinrich, 2015; Terhart, 2002). The concept of Bildung has its limitations, primarily in that it has become predictable, boring and barren in practice (Maaser and Walther, 2011) and is used as an educational slogan to support conflicting positions, arguments, and goals (Horlacher, 2016).

Evidence-based education draws data from two forms. One is scientific empirical research conducted according to a relatively scientific canon of research practice, and (supra)national external standardized evaluations. More recently, this movement uses data, not only from primary research, but from first- and second-order meta-analyses. That has resulted in the emergence of a trend towards analysing and unifying the results of large quantitative meta-analytical studies using inappropriate methodology and interpreting these with an insufficiently scientifically based educational theory.

In relation to *Bildung*, external evaluation degrades the teaching profession, i.e., teacher autonomy, because the ability to evaluate students represents an immanent element of the teacher's expertise. Advocating external evaluation is an expression of distrust in the teacher's expertise at valid and reliable evaluation of student achievement. Evidence-based education has a tendency to prescribe precisely defined pedagogical procedures, teaching situations and methods of evaluation (teaching practice), which lead to minutely determined learning outcomes defined in a behaviouristic manner. Teachers lack autonomy in such a process, which is precisely the central notion of the concept of *Bildung* in school practice. The teacher's role and profession are reduced to those of a bureaucratic official who implements questionable "scientifically proven" effectiveness of teaching intervention.

The repercussions of the rigorous application and implementation of the results of external national evaluations that occur in the phenomenon called "shadow education" clearly demonstrate the relationship between the concept of *Bildung* and evidence-based education in school practice. We are talking about an escalation of private tutoring and courses from the subjects of formal education (Baker et al., 2001; Bray, 1999; Jokić and Ristić Dedić, 2007; Stevenson and Baker, 1992). In seeking to improve the formal educational system through external evaluation, we are doing exactly the opposite with the emergence of a parallel (shadow) educational system of tutoring. One of the reasons for that is that a standardized education policy, based on external evaluation, and evidence-based education, maximizes the competitiveness in the school system and in education.

The comparison of the *Bildung* concept and evidence-based education clearly shows that they represent two opposite approaches to education. The tension between the technocratic and democratic approaches is evident (Autio, 2017; Biesta, 2007). Education is not a process of physical interaction, but a process of a symbolically mediated interaction, which is visible in the *Bildung* concept (Biesta, 2007). Therefore, the question of what is desirable in education and teaching is justified (Autio, 2017; Biesta, 2007). In other words, education is a moral practice, not a technocratic intervention, which is the essential intention of evidence-based education (Autio, 2017; Biesta, 2007, 2010). That is why it is justified to claim that education and teaching practice are characterized by value-determined desirable decisions on action.

That elaboration does not diminish the importance of educational research, but the extent to which education policy is founded on research remains questionable, because such an approach distorts either practice or research. Besides using knowledge, practitioners also rely on their personal experience and value-based decisions (Hammersley, 2005; Biesta, 2007), while research criticism of education policy and practice often tends to be utopian or naïve, just as researchers often produce detailed data that are superfluous to practitioners (Hammersley, 2005).

Interpretation and comparison of these facts make it clear that evidence-based education denies the tradition of the *Bildung* concept (Autio, 2017; Biesta, 2007; Rømer, 2018). Evidence-based education degrades the concept of teaching and the teacher's instruction. Referencing the ideas of John Dewey (Biesta, 2007) and Immanuel Kant (Rømer, 2018) clarifies that evidence-based education accentuates the power of evaluation rather than the power of judgement. The emphasis is being placed on the standardization, measurability, commercialization, and privatization of education, which is additionally wrapped in the cost-benefit corporation management of the educational system, schools and the activities of students and teachers (Sahlberg, 2021). Therefore, we can say that education deals with the theory of evaluation, rather than with the pedagogical, i.e., educational theory that dominates in the *Bildung* tradition (Rømer, 2018).

Conclusion

The genesis of the *Bildung* concept lies in the Renaissance and the Enlightenment, as well as in the didactic tradition of continental and northern Europe. Education marks the forming of an autonomous, free, self-reflective, and self-critical person capable of moral, social, and cultural action. The integral parts of the *Bildung* concept are freedom and autonomy. It was the dominant starting point for the process of contemplating education until the first half of the 20th century. Evidence-based education has its origin in the curriculum tradition; however, those two are not synonyms conceptually. Evidence-based education implies using the results of scientific research and standardized external evaluations to make decisions regarding the education policy of linking practice and research. By the end of the 1980s, these phenomena had escalated into a global educational reform movement. Meanwhile, by the end of the 1960s, the term "curriculum" had returned to Europe, mainly in western Germany.

By the beginning of the 1990s, in the field of medicine, the phenomenon of evidence-based practice had triumphed, and later, in education, there is the phenomenon of evidence-based education. It thus became interesting to education policy. In the last twenty years, there has been renewed interest in the concept of *Bildung*, often as a tool to fight against standardized, international, large-scale assessment, and evidence-based education (education policy) in general.

Evidence-based education was formed on a positivist and technocratic approach to education. It arose along with the aspiration to quantitatively measure the “effectiveness of treatment” in achieving behaviouristic formulated student learning outcomes. Through that, it seeks to recommend “what works” interventions (treatments) in teaching to the practitioners. In the *Bildung* concept, education and teacher instruction are not technocratic undertakings of effective treatments, but moral and value-determined desirable actions by teachers (and students) during the teaching process. The didactic tradition places emphasis on the legitimization of the teaching content, and teachers were awarded trust in their expertise (autonomy) while designing the teaching of that content (moral and value-determined action). In the curricular approach, the emphasis was placed on the learning activities, and on achieving the prescribed learning outcomes and their evaluation, which serves as the basis for evidence-based education. In the manner of standardized external evaluation, evidence-based education discredits teacher autonomy, which is the central part of the *Bildung* concept. Teacher autonomy in teaching expertise is discredited, especially in the form of expressing distrust in the teacher’s ability to evaluate student achievement.

The evidence-based education movement uses the results obtained through scientific study of education. It uses the results of extensive scientific research and data from (inter)national standardized external evaluations. Recently, it has become fashionable to conduct and use the results of meta-analyses; however, their results depend on the rigor of the methodological design of such research. On the other hand, arguments against the *Bildung* concept are that it is being used as an educational slogan to support opposing positions, arguments, and goals, and it is becoming predictable, “boring”, and barren in practice.

One practical negative side-effect of evidence-based education, more precisely, the rigorous application of standardized external evaluation, is the emergence, alongside the formal system of education, of a parallel education system in the form of private instruction. Therefore, we can conclude that evidence-based education leaves no space for the concept of *Bildung*.

Nevertheless, it is not justified to hold a strictly negative view on standardized external evaluations. On the contrary, it is appropriate to critically use their data as an auxiliary tool for anthropological and philosophical formation of the goals of education policy as well as in system reform. Still, the fact is that the established measurability and standardization of education has been established, which raises the question of the future of education. It is nonetheless appropriate to critically use their data as an auxiliary tool in the anthropological and philosophical formation of the goals of educational policy and system reform. Undoubtedly, the measurability and standardization of education have been established, so the issue of the future of education remains relevant.

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