Retrieving and recontextualising VET theory

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The concepts of vocational competence and competency: False friends in international policy learning.

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Abstract

International cooperation in vocational education and training (VET) has gained great importance in recent years. Approaches from the German- and English-speaking countries are particularly well known around the world. A key feature of why these two approaches gain so much international popularity is that they purport to be very closely oriented to workplace situations and train practice-relevant skills. A normative movement that has influenced the German VET is 'action orientation'. Since then, competence-based VET has shaped the design of VET (cf. Jenewein 2010). VET in the 'English-speaking' world has a concept which is based on 'skills' and can be seen as narrowly defined task-based competencies (cf. Brockmann *et al.* 2008). At first glance, both approaches seem to be similar because of the words used which are similar: 'competence' (*Kompetenz*) and 'competency'. There is a danger that both concepts are treated as interchangeable synonyms (cf. Kuhlee/Steib/Winch 2022). This paper aims to present and contrast the origins of the two approaches, including their normative characteristics. The philosophical dimensions of the two approaches will be analysed for similarities and differences. This comparison can point out the dangers of mixing elements from different concepts, e.g., in the context of international VET cooperation.

Keywords: *competence approach, competency approach, international policy learning, Anglo-Saxony, Germany*

1 Introduction

'Policy learning' in the field of vocational education and training (VET) has gained great importance in international cooperation in recent years. In particular, countries with more academically based VET systems are inspired by VET approaches with a stronger practical component (cf. Chakroun 2010; cf. Oeben/Klumpp 2021; cf. Wang/Jiang 2013). Approaches from the German- and English-speaking regions are particularly well known around the world and their leading position is reflected in various policy transfer activities (cf. Li/Pilz 2023; cf. Toepper/Zlatkin-Troitschanskaia/Kühling-Thees 2021). A key to why these two approaches are gaining much international popularity is that they purport to be very closely oriented to workplace situations and provide practice-relevant skills. The practical orientation of VET in German-speaking countries is based on the principle of action orientation (*Handlungsorientierung*), which is reflected in vocational action competences (*berufliche Handlungskompetenz*) and their sub-competences (e.g., Bader/Müller 2002; Hanf 2011; KMK 2021). The practical orientation in the Anglo-Saxon discourse is characterised by the approach of learning output,

which can be operationalised through modularly structured competencies (cf. Clarke/Winch 2015).

At first glance, especially for those who are not familiar with both approaches, they seem to be similar as they are strongly practice-oriented and at the same time use the term of competence (*Kompetenz)* and competency in their approaches.[1] There is a strong desire in international exchanges to seek common ground, but it becomes apparent frequently in international cooperation that the differences between the two approaches are not clear for stakeholders in policy-recipient countries (cf. Brockmann/Clarke/Winch 2008; cf. King 2014). We note the attraction of the words 'competence' and 'competency'. There is a phenomenon of policy transfer activities that combine policy borrowing from several countries within a single policy recipient country, such as in some Asian countries (cf. Reich/Ho 2017; cf. Yu 2013). Due to this mixing of policy from diverse roots, there is a danger that both competence and competency approaches are treated in the same way and elements of different concepts are mixed without sufficient understanding of the approaches nor context. Clement (1999) emphasised the challenge of philosophical concepts in an international space with the example of the German *Beruf*. We find the same potential of misunderstanding by the term of competence and competency since the philosophy behind the VET concepts could be lost by translation as the concepts move around the world (cf. Brockmann et al. 2008; cf. King 2014; cf. Kuhlee/Steib/Winch 2022).

The national implementation of competence-based VET around the world has been investigated in the international literature. Mulder (2017) describes the different conceptions on competence-based VET and their implementation in different parts of the world. Nevertheless, there are few studies that have addressed the transfer of a competence-based approach in the context of policy transfer and the cultural challenges involved. Most studies focus on the transfer of VET at a system level. Studies investigating the policy transfer of competence-based approaches use different competence understandings and theory models for their investigations (cf. Baumeler 2019; cf. Boahin/Eggink/Hofman 2014; cf. Parent et al. 2010; cf. Ramasamy/Pilz 2019). This reflects the variations of understanding competence in VET around the world. An important finding in the study of Baumeler (2019) can be mentioned here, which examines the transfer of competence- or competency-based VET from Switzerland to India. She concludes that:

> Two different context sensitivities seem important: (a) with regard to curricular aspects: to be context sensitive regarding the labor market because one of the main requirements is the definition of competencies that are required in the workplace; and (b) with regard to instructional aspects: to be context sensitive regarding the philosophical understanding of the ideal person in another cultural context (aligned with competence-based VET: the ideal proactive, entrepreneurial, innovative and critical person, borrowing on social constructivist ideas about teaching and learning and the accompanying behavior of teachers and students). (Baumeler 2019, 13)

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[1] For clarity we have translated the German language term *'Kompetenz'* into its common English language translation 'competence' and have left the usual Anglo term 'competency' as it is.

These conclusions highlight the importance of understanding the theoretical and philosophical background of a certain competence or competency approach for policy transfer purposes, because it is not only about solving a problem of the VET system of the policy-recipient country, but also about what normative VET understanding and consequently VET mission is transferred. These transferred norms can have a lasting impact on the VET system of the policy-recipient country, so awareness of their existence is important.

There is significant danger that the philosophy behind the terms 'competence' and 'competency' and the associated structures are not transmitted fully. Consequently, these concepts cannot be adequately transferred and adapted to the local framework conditions. Another consequence would be that the misuse of the concept for other political purposes would remain unnoticed (cf. Phillips/Ochs 2003).

In this context, the relevance of VET philosophy for a deeper understanding and design of VET concepts will be highlighted. This is because knowledge of VET philosophies offers interpretive depth and enables access to the underpinning arguments for VET stakeholders. The VET philosophy behind a concrete VET concept offers the possibility to explain, interpret and understand pedagogical situations in a structured way. In different situations, they enable rapid orientation and decision-making as well as adaptation strategies based on substantial knowledge. The VET philosophies can also be used to critically examine policy transfer activities in the context of the receiving domestic social value system. (cf. Ketschau 2018; cf. Klika/Schubert 2013). This deepened understanding strengthens practical implementation of VET concepts in the context of international VET cooperation.

Against this background, this paper aims to present and contrast the origins of the two competence and competency approaches, including their VET philosophies. Based on the theoretical and normative discussions, the two approaches and their operationalisation will be analysed for similarities and differences.

2 The theoretical construct of VET philosophy

We use the construct of VET philosophy as a theoretical foundation. Taking a philosophical view of the constructs of VET, a socio-critical reflection of VET is made possible (cf. Ketschau 2018). This ability to critically reflect is crucial in the context of international policy to enable critical examination of the transfer of VET approaches and make any adjustments in a well-founded manner. These adjustments can only be made thoughtfully if the VET philosophy behind a policy is thoroughly understood and not just limited to the observable structural features of the policy. The VET philosophy behind the VET concept makes it possible to understand, explain, interpret pedagogical situations in a structured way. They enable decision-making in different situations as well as strategies for adaption within the context based on contextualised knowledge. Knowledge of VET philosophies that underpin the policy to be transferred also protects against misinterpretation and political misuse of policies for other purposes (cf. Ketschau 2018).

The construct of the philosophy of VET is hardly discussed in the philosophy of education. In order to explicate a construct of philosophy of VET for our research question, we are guided by the work of Ketschau (2018). This is because Ketschau (2018) looks at the construct of VET philosophy from a meta-perspective. He discusses the construct in a theoretical way that distances itself from concrete philosophical schools. This meta-perspective is particularly suitable for examining and comparing VET philosophies from different regions, here German-speaking and Anglo-Saxon regions, because it minimises the danger of a distorted view.

Ketschau (2018) firstly discusses the sub-concepts of VET and educational philosophy separately from each other in order to then integrate the definitions of the two sub-concepts with each other. The philosophy of education has the task of explaining the foundations, meaning and essence of education. At the same time, as a science, it is itself an object of education (Rehn & Schüles 2008). VET has the task of imparting knowledge and skills in order to carry out work-based activities. The integration of both sub-concepts into 'VET philosophy' serves the theoretical examination of VET through philosophical methods. This approach is equally applicable to VET internationally.

As distinct from VET theory, VET philosophy raises the questions and seeks theory to answer them (cf. Ketschau 2018). In the context of our research question, VET philosophy helps to raise comparative research questions in the area of competence and competency approaches, which can be answered with the help of different VET theories depending on the approaches.

Ketschau (2018) attributes two aspects to VET philosophy, structural-functional aspect and normative aspect. We take up the construct of competence and competency as a structural-functional aspect and deal with the normative VET philosophy behind it. In this context, Ketschau (2018) particularly highlights the role of VET for social order. For this purpose, three levels of social order are considered, which are interdependent:

At the macro level, the role of VET and vocational competence and competency approaches for society is considered in the German and Anglo-Saxon approaches. The tension between VET's economic functionalism and emancipatory personality formation is discussed here (cf. Ketschau 2018).

At the meso level, the role of VET and vocational competence and competency approaches for the education system is examined. Here, Ketschau (2018) contrasts the philosophy of education for a target occupation as well as education through occupational immersion, which is of course related to its location in the social tension at the macro level. For instance, the aspect of the role of trainers and VET school teachers or in the same way, the relationship of VET and vocational competence and competency approaches to academic education could be taken up.

At the micro level, the role of VET and vocational competence and competency approaches for the individual are compared. What is the function of vocational competence and competency approaches for the participating individual? Does it serve to qualify for income security, is it associated with personality development or is it about social identity?

The role of these concepts in the different levels will serve as a *tertium comparationis* for comparing the different competence and competency approaches.

3 The evolution of the Anglo-Saxon approach of competency

This section elaborates how the concept of competency has evolved in the Anglo-Saxon-countries. A historical overview of VET in Anglo-Saxon countries is provided, following a deep exploration of the concept and understanding of competency.

3.1 The historical development of VET in Angelo-Saxon countries

In the United Kingdom prior to the industrial revolution, formal and informal apprenticeship formed the basis of VET. Intellectuals had little interest in this form of education. Following in the Platonic tradition, English assumptions about formal education were that the process frees the soul of the student from thraldom to the sensory world so that it can dwell on pure and good objects. The liberal arts or sciences supplied the curriculum to liberate the soul. In contrast, manual labour and artistic endeavour were taken as forms of bondage to the material world. With this attitude current among intellectuals, it is little wonder VET was not an early object of academic study.

However, this neglect began to give way with the industrial revolution. A key reason for the change was that the apprenticeship model could not service the dramatic increase in demand for skilled labour (Jarvis, 2010). Apprenticeships required an extended period of time for completion and revolved around well-defined occupational roles. And these features of apprenticeship were contrary to the attitude at the time of how skills should be acquired to operate machines, namely short-term and small-scale, *'perhaps those of a few days might be sufficient'* (Smith 1776, chapter 10, 71). Furthermore, knowledge and skills were imparted within a limited social structure dominated by family, small community and/or guild units. Industrialisation introduced qualitatively new occupations and radically disrupted traditional family and community patterns. Where craft guilds were involved, there was often resistance to the forces of industrialisation manifesting in restriction to entry to trades through mandating of limits upon the number of new apprentices that could be engaged.

In terms of philosophy, interest in the skill challenges of industrialisation drew on a range of sources. The Platonic tradition remained influential. In the industrial context, the argument was that working people would be morally improved through exposure to the liberal arts. A related position drew from empiricist principles and called for the instruction of the labouring classes in natural scientific ideals, procedures and knowledge.

These two positions are evident in the rationale for the Mechanics Institute movement (cf. Ketts 1994) which took root on both sides of the Atlantic. The term 'mechanics' arises from the recognition that through the industrial revolution, machines had taken over many skilled operations. It was widely held that workers would need to move into occupations based on tending machines, hence the characterisation of 'mechanic' which became a broad term for

anyone whose work involved making, using or repairing machines. The idea of a Mechanics Institute thus signifies development of a new type of worker who would become a potentially large group and central to the workforce of the future. The foundations of the Mechanics Institute model emerged when George Birkbeck gave free lectures in chemistry to Glasgow mechanics at the beginning of the 19th Century. The Institute was formally established in 1823, followed by the founding of the London Mechanics Institute the next year. A little earlier, in 1822, the New York Mechanic and Scientific Institute was created.

The ideas of Birkbeck, of social reformers like Henry Brougham in the UK, and of the Quaker John Griscom in the US, revolved around the idea that the natural sciences should be learned by working class people for the greater good of society and the economy. The reasoning of the reformers is summarised by Ketts (1994, 13): 'The conviction that knowledge of science would make artisans more inventive was the most potent and widespread intellectual impulse behind the institutes.'

However, members of the Chartist movement in the UK who were interested in educational questions were critical of the reasoning behind the Mechanics Institutes (Hodgen, 1935). Chartist commentators argued that the institutes were shaped by the interests of the ruling classes and were failing to equip working people to recognise and deal with the real issues confronting them in a rapidly changing society. The Working Men's College (WMC) was founded in 1854 in London as a new type of institution that would combine training in activism with subjects drawn from the liberal arts tradition. The latter source of curriculum could be seen as strategic on the basis that these were counted as important forms of knowledge from which working class people had been excluded. The WMC thus sought to produce 'citizens' rather than mechanics.

Dewey, an American pragmatist philosopher who made significant contributions to educational philosophy, included VET in the scope of his theory. Influenced by German philosophy and educational theory (such as the teachings of Herbart (Hopmann, 2009), Dewey (1916) argued that education related to the whole person in their social and political context. Education was not only concerned with the induction of young people into contemporary culture, but was a lifelong undertaking. In terms of VET, Dewey considered 'vocation' to be the source of individual meaning, and applied as much to child-rearing as to formal occupational roles. VET thus concerned the way the individual fitted into society and supported a search for a meaningful place for themselves in the world of work. Dewey's ideas influenced the development of the adult education movement (through Lindemann) and 'progressive' schooling in the US. However, his contributions came under strong attack from behaviourist reformers such as Thorndike (cf. Tomlinson 1997) and 'social efficiency' theorists like Snedden (cf. Labaree 2010), each of whom represented dominant interests and successfully argued that Dewey's humanism would divert attention from the needs of government and industry. This is because the idea of VET at that time was characterised by a skill understanding according to Adam Smith, which divided the industrial work processes into small work tasks, and the idea of skills was limited to the explanation of these work processes. The learning process for the acquisition of these skills by a skilled worker was not considered (Smith 1776;

Brockmann/Clarke/Winch 2011). Thus, one of the most coherent VET philosophies seen in the Anglo world had very little influence on subsequent systems of VET. Rather, the further development of VET in the English-speaking world followed a path that was close to the principles articulated by Thorndike and Snedden.

3.2   The understanding of competency

Competency became an important idea in educational discourse during the late 1960s. This currency was preceded by the emergence of the term in social sciences research and theory in the 1950s and 60s. In the social sciences context, the concept referred to the potential or readiness to act effectively in practical situations. Bernstein (2000) cites developments in linguistics (e.g., Chomsky), developmental psychology (e.g., Piaget), cultural anthropology (e.g., Levi-Strauss), micro sociology (e.g., Garkinkel) and communication theory (e.g., Hymes) that each utilised the notion of competency to denote the realisation of underlying potential in coping with everyday life. In the field of psychology, 'competency' was proposed as an alternative to intelligence as the general cognitive capability of humans (cf. McClelland 1973), an argument that was picked up and applied in management theory (cf. Boyatzis 1982). The competency framework for managers that resulted identified a small number of core abilities of managers. This conceptualisation of competency reflected the generic and holistic under-standing of competency that developed in the social sciences (Bernstein, 2000).

However, this conceptualisation of competency was not at the basis of the competency idea in educational discourse (Hodge 2016). In the US, the first educational usage was in relation to performance-based teacher education, an approach to professional preparation that used behav-ioural objectives theory to determine curriculum. This theory stemmed from instructional design, a body of knowledge developed by psychologists working for the US military on prob-lems of training for 'man-machine systems'. Behavioural objectives theory contrasts with the theories of competency developed in the social sciences. The behavioural theory is reductivist and draws content for educational programming from work tasks and functions, rather than being holistic and focused on mediation between internal and external factors.

Another development, this time in Canada at the start of the 1970s, introduced a method for rapid design of training programmes intended for unemployed youth (cf. Joyner 1995). The so-called DACUM ('Develop A Curriculum') technique involved recruiting a group of expert workers guided by a trained facilitator to determine the main roles and tasks for a given occu-pation (along with any underpinning knowledge and skills for those roles and tasks). A rule of the DACUM model was that educators should not be involved in curriculum development as they would impose educational preconceptions on the process. The purpose of the DACUM model was to be an occupational or industry-driven process free of educational philosophies. The approach was labelled 'Competency-Based Education', and, like the US model of 'Com-petency-Based Teacher Education', the content of programmes of learning reflected work requirements with little or no reference to those learning to work.

A combination of the US and Canadian competency approaches was implemented in the UK in the 1980s as part of their training reforms (Hodge 2016). The DACUM technique was adopted, and the results of the technique were rendered in terms of behavioural objectives. The UK 'competency-based training' model was applied across multiple industries. Policy makers argued that the training system needed to be led by industry with a view to developing a highly skilled workforce to improve that nation's global economic performance. In order to meet industrial requirements, any competence training relates to specific activities or work performance, e.g., the operation of specific machines.

> It can be seen, therefore, that the English notion of competence is conceptually related to the performance of tasks, to output in the workplace, rather than to any notion of an individual's occupational capacity […]. (Brockmann/Clarke/Winch 2009, 792).

The conception of competency in the English-speaking countries relates to narrowly defined tasks and narrowly defined skills. Training reforms in Australia in the early part of the 1990s followed the UK lead, utilizing similar arguments and the same competency-based architecture, so that we refer here to a discrete conception of competency approach (Hodge 2016). In Australia, CBT remains the dominant VET model, with the bulk of tertiary education in the first five levels of the 10-level Australian Qualifications Framework based on 'units of competency'. As defined in legislation for VET providers, 'competency' means:

> The consistent application of knowledge and skill to the standard of performance required in the workplace. It embodies the ability to transfer and apply skills and knowledge to new situations and environments. (ASQA 2022)

In principle, such a definition could underpin a humanistic VET but in practice individual 'units of competency' take the form of behavioural descriptors and performance criteria that shape VET programmes.

4 The evolution of the German approach of competence

To facilitate a structured comparison between 'competence' and 'competency' approaches this section follows a similar structure to the preceding one. It explores the evolution of the concept of competence within German-speaking countries, starting with a historical overview of German VET in these nations, followed by a description of the competence approach.

4.1 The historical development of the German VET and competence approach

The recent development of VET in Germany originates from the Prussian reform period at the beginning of the 19th century. At that time, Wilhelm von Humboldt referred to Plato's idea of the education of human beings and brought it into the understanding of German education which states that young people should first learn basic general human skills to build their character and personality. This should be done through a classical education, e.g., classical literature, art, language and history. Only then are purpose-bound specialised VET allowed (cf.

Humboldt 1792, cited after Flitner/Giel 1980, 64). This view led to the emergence of a purposive division between general education and VET, which is still partly present in society. Humanistic education was placed under the responsibility of the Gymnasium, which, without practical educational components, raised a bourgeois social class that gained access to higher education and occupied all important positions in the civil service. Although practical VET was perceived as important for economic development, it was not seen as a form of education. However, it was not considered a form of 'education' and remained the preserve of the lower social class. Throughout the 19th century, VET was not shaped by pedagogy and educational policy (cf. Blankertz 1982, 120).

VET was placed in the hands of industry due to needs of the advance of industrial development. In the electrical and chemical industries, separate apprenticeships were created, however pedagogical considerations played little role in this (cf. Brater 2020). The state's efforts at standardisation and order then introduced the concept of occupation as a means of order (cf. Harney/Zymek 1994) and fell back on the concept of occupation *(Beruf)*, which borrows from a religious image of occupation in the sense of a divine calling from the Reformation. It is much more than just an activity to secure one's livelihood, but a life task that gives meaning, identity and social belonging (cf. Conze 1972). This construct gave rise to the debate on the two terms 'work' and 'occupation' in the 1960s (cf. Bauer 1979; cf. Brater 2020; cf. König 1965; cf. Scharmann 1956; cf. Schelsky 1965; cf. Zabeck 2009) or how Hanf (2011) points out a continuum between the concepts of 'job' and 'occupation' in the dimensions of systematic knowledge and collective orientation.

Inspired by Hegel, Karl Marx (1844/1857) describes work as the basis of a human being for the self-determined individual formation of all the potentials that lie within him. In doing so, he sets the condition that labour is not alienated by externally determined, fragmented and unqualified qualities. Only non-alienated work contains a personality-forming value. On this basis, Kerschensteiner took up the idea of work that educates and built up the work school around 1900. The work school provides lessons in selected areas of apprentices' profession. In addition, the apprentices practise practical skills in the school workshop. Teachers accompany the apprentices in their work in the school workshops and let them try out different ways of working. The work school has the aim of training and educating apprentices in their professional skills away from industrial pressure. The teaching of practical skills is pedagogised by allowing time for skills development, reflection and personal development. Finally, the training and education in the work school serves to develop the joy of work and to shape the civic formation of the apprentices (Kerschensteiner 1908/2022). This gave rise to the idea that VET, in addition to its technical-professional purpose, also benefits personality development (cf. Kerschensteiner 1926). However, this idea was limited to VET school education and did not affect industrial VET at the time. Kerschensteiner criticised the working conditions in the masters' workshops and industrial factories of the time as unfavourable for competence and character building.

> This one-sidedness of the preparation of the next generation is even more characteristic of our major industries, which strive to make the human being nothing more

than a component of a machine for his whole life. (Kerschensteiner 1908/2022, 401).

There was a core assumption that VET only educates if the person feels called to it and feels the joy of work. Against this background, real work activity, which at that time was characterised by taylorised work steps, was strongly criticised and not involved in the work schools. There was a demand to redesign in-company training so that it would contribute to personality development. This demand was taken up by the economy at the end of the 1970s, when the demands on professional work changed. Due to the increasingly rapid technical change and the restructuring of industry away from taylorism to lean organisations (cf. Womack/Jones/Roos 1992), flexibly employable skilled workers were required who could be deployed in as many different jobs as possible.

Dieter Mertens (1974) responded to rapid economic change with the concept of key qualifications *(Schlüsselqualifikationen)*, which emphasises interdisciplinary skills in addition to technical qualifications. Key qualifications enable people to quickly find their way in different professional situations. These include social skills such as teamwork as well as personal skills such as adaptability (cf. Vonken, 2017). This development in VET has led to personal development also gaining importance in the workplace context. Kerschensteiner's 'education through work' now serves not as an end but as a necessity for modern work organisation and is developing into 'education for work'. The concept of competence orientation in the German-speaking world finally emerged from the key qualifications. VET should enable people to independently plan, carry out and control work activities (cf. Kuhlee/Steib/Winch 2022).

4.2   The understanding of competence

In VET, the path towards competence orientation was triggered by fundamental changes in the design of company work processes. The increasingly rapid technical change and the restructuring of industry led to the end of taylorised practices to more complex work organisations. The image of the qualified skilled worker in production and administration changed. The view was that it was no longer enough to provide isolated qualifications to cope with work. It is not only necessary to perform well, but also to develop intrinsic motivation to perform competently and to acquire new skills independently. Aspects of personal development moved to centre stage (cf. Vonken 2017). 'Now, there is a meaningful distinction between acting in a specific way and possessing a capability for those actions, called competence.' (Vonken 2017, 70).

During this period, considerations from various psychological approaches – such as Piaget, Aebli, Leontjew, Galperin or Rubinstein (see Kaiser 1987, 15f. and Söltenfuss 1983) – played an important role in laying the foundations for action-oriented learning. In his interiorization theory, Galperin (1902–1988) emphasises the gradual internalization of 'external' actions via verbal to internal actions (cf. Galperin 1969). Educational psychology gains significant influence with the action theories of Hans Aebli (1923–1990), who writes: Thinking emerges from action; Actions create the relationships between factual, social and intellectual circumstances (cf. Aebli 1980). With this attitude, modern action psychology branched off from a pure

psychology of consciousness and memory. At the same time, the action psychology distances itself from behaviourism, which sees the human brain as a black box (cf. Tramm/Goldbach 2005). Actions are thus the core of action theory. The assumption is made here that human action is goal-oriented and expectation-driven and that its course is cognitively regulated (cf. Tramm/Goldbach 2005).

This idea was taken up by VET. Subsequently, numerous model experiments on experimental and learner-centred learning were tested and scientifically supported (cf. Czycholl/Ebner 1989). This experience consequently flowed into the reorganization of the training occupations, starting with the electrical and metalworking occupations (cf. Jenewein 2006).

In VET, the guiding principle of independent planning, implementation and control of vocational work was pursued as a goal orientation. From then on, competence orientation was considered the guiding idea in the development of curricula, the design of vocational learning and the orientation of examinations (cf. Achterhagen *et al.* 1992).

Competence orientation characterises the basic understanding that teaching and learning should not be limited to merely imparting content and knowledge or practicing predefined skills. This approach follows the view of constructivist learning theory (cf. Savery/Duffy 1996) and the idea of individual support, so that everyone gets as far as he or she can with his or her ability in order to unfold his or her productive power (Kerschensteiner 1979). Rather, it should be directed towards the interwoven development of knowledge and action, of reflection and action, of insight and implementation. The concept of competence serves as a didactic category for recording such development processes (cf. Tramm 1997). The construct of 'vocational action competence' used in German VET represents one of several understandings of competences.

Action competences refer to the potential, the possibility to act. In this sense, they do not capture a rehearsed behaviour for a specific situation, but they represent a person's inner potential for stable, regular action in certain types of situations (cf. Aebli 1980). Thus, the distinction between observable behaviour and underlying action competences that enable such behaviour is fundamental.

The theoretical foundation of 'professional action competences' (*berufliche Handlungskompetenzen*) enables a differentiation of action into different areas of action and focal points. The differentiation of areas of action follows the anthropological assumption (cf. Roth 1971) that a person can in principle be confronted with three types of challenges, the mastering of which address different areas of competence (cf. Euler/Hahn 2014; cf. Kuhlee/Steib/Winch 2022). In subject-related competence (*Fachkompetenz*), the focus is on dealing with certain work processes including objects of nature or culture. Social competence (*Sozialkompetenz*) is about dealing with other people in different communication situations both including social skills and moral dimensions. Self-competence (*Selbstkompetenz/Personalkompetenz*) is about dealing with aspects of self-mastery, for example, with one's own emotions and learning behaviour. The three areas of action or competence related to them can each occur and become effective in different focal points (cf. Euler 2020). In the focus of cognition, the knowledge about work processes, the relationship to other people or one's own person is in the foreground. In the focus

of valuing, the attitude is taken towards the work process, during a work-based relationship to other people or towards one's own person. In the focus of ability, it is primarily the creating activity that is addressed to the work process, to the relationship to other colleagues or to the own person.

5 Comparison of the Anglo-Saxon and German VET philosophy of competence and competency

To enable a structured comparison of the philosophies behind the German competence approach and the Anglo-Saxon competency approach, the structural-functional aspects according to Ketschau (2018) are used here. The resulting role of VET for the social order is broken down into macro level, meso level and micro level (see section 2.2). The comparison of the two approaches is made according to this social order.

Macro level: The role of vocational competence and competency for the society

At the macro level, the role of vocational competence and competency approaches for society is considered in the German and Anglo-Saxon approaches. The tension between economic functionalism and emancipative personality formation is discussed here (cf. Ketschau 2018, 94).

The Anglo-Saxon competency-based VET is oriented to the transfer of technical skills and knowledge. Competency-based systems are implemented to align with and articulate state economic goals down to the level of programme and lesson designs. Economic goals in relation to VET include supplying skilled workers to industry. Industry identifies its needs in terms of the content of competencies. The enforcement of the workforce role in the society is generally not an explicit goal of VET from the perspective of the labour markets' the stakeholders. Employers' representatives consider competency training as an instrument to operate in the workplace and not for an educational purpose (Raggatt/Williams 1999). However, VET policies may be informed by human capital theory which acknowledges individual economic benefits from education and training at higher-level more complex abilities (Jessup 1991).

The German vocational competence orientation serves both the transfer of technical skills, abilities and knowledge as well as personal development in the sense of social as well as personal qualities. However, historical development shows that education through work exclusively for human formation met with great industrial resistance in the past. Vocational competence orientation cannot be considered separately from economic functionalism, because competences are linked to concrete types of situations and the working skills in these situations. Vocational situations are used here for VET and not situations that serve purely educational purposes. At the same time, the transfer of competences does not only serve to cover industrial needs, but also the professional autonomy of a person to move flexibly on the labour market to a certain extent is also pursued. This means that protection against the economic dependence of skilled workers on the economy is also served. This importance is made clear, for example, by equal representation of the social partners, i.e., representatives of employers, e.g., chambers,

and representatives of employees, e.g., trade unions, in the various VET committees (cf. BIBB 2014).

Meso level: The role of vocational competence and competency for the educational system

At the meso level, the role of vocational competence and competency approaches for the education is discussed here. The philosophy of education for occupation as well as education through occupation are examined. This dimension is of course related to its location in the social tension at the macro level.

The Anglo-Saxon competency-based education and training is a means of creating consistency among providers and programmes. Where competency documents are the basis of VET curriculum and where these documents are developed centrally, differences between programmes offered by different providers are minimised. The intention behind this kind of VET system is to be 'marketised' readily and the role of students is positioned as consumers who are supposed to be able to make more informed decisions about their VET trajectory (e.g., Winch 2023). In contrast to the German VET schools, the VET providers in Anglo-Saxon regions may operate more like businesses than educational institutions and be more concerned to graduate students more efficiently and in greater numbers. For instance, VET teachers can be positioned as 'delivery workers' who implement outcomes determined externally. The different roles of VET teachers are also reflected in the different working conditions of teachers in the countries of the competence and competency approaches. For example, in Germany VET teachers enjoy the benefits of civil service employment and, depending on the state, may also have civil servant status. In contrast, the employment contracts of VET teachers in Australia are often fixed-term and paid less than those of teachers in other types of schools. They are not considered as 'educator' but 'trainer and assessor' which is a subtle but fundamental difference.

Kerschensteiner (1926) brought the idea of 'education through work' to the German educational landscape and established work schools. At that time, he held the view that this work should serve solely to form the personality and should consequently be seen as a vocation for the learners. With the founding of the work schools and continuation school, he pedagogised the teaching of vocational skills by enriching both theoretical and practical training with peda-gogical support in the school workshops. He emphasised the importance of the joy of work and VET as a path to civic formation. This view distanced itself from the real world of work, which was criticised as alienated by taylorist thinking, time pressure and narrow work processes (Ker-schensteiner 1908/2022). With the introduction of the lean organisation, personal development also became the focus of industrial VET. However, this was done in order to make the skilled workers more flexible for work through education. Therefore, both approaches mentioned by Ketschau (2018) can be seen in the German history of VET. With the dual training system, VET schools also have an educational and an economic mandate. Trainees have different roles depending on the place of learning. In companies, they have to comply with the company's interests, competences are taught on the basis of company situations; at VET schools, other situation contexts are also used to teach competences, e.g., from the private context or from the

educational context. Personal development through VET at this place of learning is a purpose of VET teachers in the VET schools definitely.

Micro level: The role of vocational competence and competency for the individual

At the micro level, the perspective of the individual on the purpose of competence and competency approaches is examined.

The competency based VET in the Anglo-Saxon case can reduce individual students to subjects of industry skill development regimes. Where a competency-based system is subsumed to economic policy, students are bearers of needed skills. As a collective, students may be regarded as parts of a 'workforce' whose characteristics are manipulated for whole industry goals. A competency-based VET system that is focused on supplying industry skill needs may provide individual students with short-lived skills that need to be upgraded constantly rather than broad capabilities through with individuals can take an active stance in relation to their lifelong learning. The competency approach is seen as an instrument where the individual can acquire the skills that are demanded by the industry. The individual competency stands for itself and the individual values this competency according to its relevance for the industry.

In the German case we can refer to the construct of the occupational (*Beruf)* concept, which is based on a religious image of occupation in the sense of a divine calling from the Reformation and aligns with the traditional word 'vocation' in English. It is much more than just an activity to secure one's livelihood, but a life task that gives meaning, identity and social belonging. Against this background, skilled workers often define themselves by their training profession and less by the position they hold in a company. This means that the vocational competences are considered in the context of the holistic occupational profile and that bundles of these vocational competences lead to the identification of the individual with the training occupation (cf. Hanf 2011). The individual competences have less value on their own.

The structured comparison of the role of the competence and competency approaches at different levels of society highlights major differences in philosophy between the two approaches. In the next section, the historical development is taken up to explain these differences and the danger in transferring the two approaches into other cultural contexts is highlighted.

6 Discussion

The historical development of VET in the German-speaking and in the Anglo-Saxon countries was very similar at the beginning of the 1900s. The Platonic understanding of education has had a recognisable influence on the education system in both cultural areas (cf. Brater 2020). Consequently, the separation of personality-forming classical education and production-oriented VET could be found in both approaches (cf. Humboldt 1979, cited after Flitner/Giel 1980). Decisive for the different development of the VET systems and thus of the competence

and competency approach were the different ways of dealing with the challenges of industrialisation as well as the associated changes in the organisation of work.

In the Anglo-Saxon world, the Mechanics Institute movement was introduced. This approach places industrial machinery at the centre of their training activities and teaches specific skills to operate, maintain and repair these machines. The teaching of natural sciences to skilled workers also served to improve production and the economy through self-reliant and morally stable behaviour (cf. Ketts 1994). In the German context, the focus was on skilled workers and their ability to cope with changing work demands to meet the challenge of industrialisation (cf. Mertens 1974). One explanation for the focus on skilled workers in Germany is the Marxian influence on the worker and his right to self-determination and his right to work that serves personal development (cf. Marx 1844/1857). Kerschensteiner (1926) followed similar ideas and brought VET into the educational discourses of the time. Since then, the development of VET has been influenced not only by industry, but also by discourses in educational science, at first more separate from each other. Industrialisation brought the two discourses together. Dewey (1916) also took up VET in his discourses on education, which, however, met with strong resistance in Anglo-Saxon VET thinking (cf. Labaree 2010; cf. Tomlinson 1997). Consequently, VET was developed more from the logic of industry.

The entry of VET into the German educational discourse also led to a further development of VET along the changed learning theories. VET learning evolved from a behaviourist to a learner-centred constructivist approach, which also discusses the learning process as an object of VET (cf. Czycholl/Ebner 1989; cf. Tramm 1997). In contrast, the behaviourist influence (cf. Tomlinson 1997) can still be observed in Anglo-Saxon VET today. VET is not considered as a part of educational science. Consequently, the learning process is not considered in the context of VET. VET serves to specify the desired work behaviour for industry. The achievement of the goal is also subject to the economic requirement of efficiency and timeliness. The design of the competence and competency approaches in the two cultural areas (Sections 3.2 and 4.2) is the testimony of these different backgrounds.

Due to the historically different ways of dealing with industrial challenges in the two approaches, their roles in the social dimension also differ. Here it becomes clear that the competence approach and the competency approach fulfil the common function of equipping skilled workers with the necessary skills for the economy. However, the philosophy behind the societal role of the skilled worker is a contrasting one. The German competence approach addresses not only the needs of the economy but also the emancipation of the skilled worker through the profession. In the Anglo-Saxon approach, the emancipation of the professional is not considered a purpose in the context of the competency programme. If we were to look at the nature of the VET programmes where the approaches are taught, their normative influence on the VET system would also become clear.

In a policy transfer of either approach, this normative position behind the approach should be clear to the policy-recipient country and aligned with the local normative understanding of what role VET plays in society. Not only the extent to which the introduced policy could cover the

needs of the economy in terms of qualified skilled workers should be considered, but also the extent to which the policy should have a significance for the emancipation of skilled workers should be discussed and determined to avoid a one-sided analysis of the success of a policy transfer. Once such a concept is introduced in the VET system, it could lead to various side effects that may not be in the spirit of the policy transfer. For instance, the transfer of dual training programmes based on the German model within the framework of the Muburak-Kohl Initiative in Egypt shows that the programmes introduced tended to lead to elite promotion instead of the originally intended poverty reduction (cf. Schippers 2009).

7   Conclusion

The presentation of the different historical development of the competence and competency approaches as well as the comparison of the philosophies make clear, that there is an understanding in Germany of the term competence which is supported by its deep and rich epistemological grounding. However, the use of term in Anglo-Saxon models is more mercurial, and this perhaps is testament to its external facing framing and the concentration on the immediate needs of industry. The models from German-speaking countries provide concrete definition of how competence is theoretically bound which resonates also within the practitioner context (cf. Jenewein 2006). However, it is interesting that the Anglo-Saxon models of some of the earliest instances of the term competency come from contexts in which international translations of concepts are being grappled with (cf. Harris/Guthrie/Lundberg/Hobart 1995). That is at least the case of the American conference purported origination of the term, where people were trying to use the term competency as a translation of ideas, to share (cf. Harris/Hobart/Lundberg 1995). Therefore, we can see these terms being used in very different ways, one as a signifier of a rich tradition and one as an indicator of lingua franca and means of sharing across contexts.

We have not discussed and investigated instances where the similarities in the visible dimensions pose a risk of confusion e.g., for policy learning but we do note that it is of concern as policies mis-understood can be mis-applied (cf. Kuhlee/Steib/Winch 2022; Brockmann/Clarke/Winch 2009). If a myth is built up by a politically and economically driven narrative about a particular policy, a policy transfer can trigger false expectations (cf. Dolowitz/Marsh 2000). Here, too, a deeper understanding of the historical and contextual development of a policy as well as its normative positioning can help to provide clarity and identify false friends.

As we become more connected with global movements of students, of labour and skills policy borrowing and sharing becomes important, ever more so with dispersed teams who may be working on single projects in far remote regions post pandemic. Especially in the digital age, where work processes continue to speed up and regional visits are replaced by online meetings, there is an increased risk that misunderstandings are less likely to be detected. Against this background, we appeal for a slow translation of terms used in internal context. However, looking into the future with trends in global learning, digitalisation and cooperation we must be sure to have shared understandings.

Against the background of the challenges explained above, the scientific and philosophical examination of theoretical constructs in the context of policy transfer is assessed here as elementary for a successful policy transfer. A scientific examination in the preparation of policy transfer could work out the historical and philosophical positioning of a policy as above on this paper, free it from myths and narratives and adequately examine the cultural and political framework conditions of the policy recipient country. There is an importance of conceptualising the full background to understand and properly implement a particular VET approach, even when this might be a term like competency in the Anglo-Saxon context which has transmission purposes rather than signification of specific knowledge. Especially in policy transfer, one should not only look at the observable characteristics but the whole context. Thus, the overall concept needs to be analysed and structurally examined to promote the mindset behind core concepts.

Perhaps the global education reform movement of competencies does not have any intrinsic meaning, the term is just a placeholder for each tradition. It is an approximation of meaning in a more profound way than simple terms are, that it is, like other words such as 'employability' have been noted as empty signifiers which often suffer from their decontextualisation in international and even national context (cf. Morley 2007) .

It is critical therefore that as part of international policy borrowing and transfer that deep understanding of the transmitting and receiving contexts are recognised as critical to working together. This attentiveness to contextual understanding will avert the danger that both competency approaches might be treated in the same way and the two different concepts have elements which are mixed without deep understanding of the approaches nor of context. To maintain idea sharing relations and continued effective engagement across the globe it is important for transparency and context to be foregrounded and our friendships to be based on well-founded understandings of each other's systems and traditions.

References

Achterhagen, F. et al. (1992): Lernhandeln in komplexen Situationen. Neue Konzepte der betriebswirtschaftlichen Ausbildung. Wiesbaden.

Aebli, H. (1980): Denken: Das Ordnen des Tuns, Band 1. Kognitive Aspekte der Handlungstheorie. Stuttgart.

ASQA (2022): Glossary. Online: https://www.asqa.gov.au/standards/appendices/glossary (30.11.2022).

Bader, R./Müller, M. (2002): Leitziel der Berufsbildung: Handlungskompetenz. Anregungen zur Ausdifferenzierung des Begriffs. In: Die berufsbildende Schule, 54, No. 6, 176-182.

Bauer, H. G. (1979): Ist Arbeit ein Bildungs- bzw. Erziehungsmittel? Eine Literaturübersicht. In: Westermanns pädagogische Beiträge, 8.

Baumeler, C. (2019): Competence-based vocational education and training and its cultural context sensitivity. In: European Education, 51, No. 1, 1-15.

Bernstein, B. (2000): Pedagogy, symbolic control and identity. Theory, research, Critique. Revised Edition. Lanham/Boulder/New York/Oxford.

BIBB (Bundesinstitut für Berufsbildung) (2014): Training regulations and how they come about. Bonn.

Blankertz, H. (1982): Die Geschichte der Pädagogik. Von der Aufklärung bis zur Gegenwart. Wetzlar.

Boahin, P./Eggink, J./Hofman, A. (2014): Competency-based training in international perspective: comparing the implementation processes towards the achievement of employability. In: Journal of Curriculum Studies, 46, No. 6, 839-858.

Boyatzis, R. E. (1982): The competent manager. A model for effective performance. New York.

Brater, M. (2020): Berufsbildung und Persönlichkeitsentwicklung in der historischen Dimension. In: Arnold, R./Lipsmeier, A./Rohs, M. (Hrsg.): Handbuch Berufsbildung. Wiesbaden, 4-14.

Brockmann, M./Clarke, L./Winch, C. (2008): Knowledge, skills, competence: European divergences in vocational education and training (VET) – the English, German and Dutch cases. In: Oxford Review of Education, 34, No. 5, 547-567.

Brockmann, M./Clarke, L./Méhaut, P./Winch, C. (2008): Competence-based vocational education and training (VET): the cases of England and France in a European perspective. In: Vocations and Learning, 1, No. 3, 227-244.

Brockmann, M./Clarke, L./Winch, C. (2009): Competence and competency in the EQF and in European VET systems. In: Journal of European Industrial Training, 33, No. 89, 787-799.

Brockmann M./Clarke, L./Winch, C. (2011): Knowledge, Skills and Competence in the European Labour Market. Abingdon.

Chakroun, B. (2010): National qualification frameworks: from policy borrowing to policy learning. In: European Journal of Education, 45, No. 2, 199-216.

Clarke, L./Winch, C. (2015): Have Anglo-Saxon concepts really influenced the development of European qualifications policy? In: Research in Comparative and International Education, 10, No. 4, 593-606.

Clement, U. (1999): Die transnationale Kommunizierbarkeit des Berufes. Verständigungsprobleme im globalen Dorf. In: Harney, K./Tenorth, H.-E. (Hrsg.): Beruf und Berufsbildung. Situation, Reformperspektiven, Gestaltungsmöglichkeiten. Weinheim/Basel, 209-231. In: Zeitschrift für Pädagogik, 40. Beiheft.

Conze, W. (1972): Beruf. In: Brunner, O./Conze, W./Koselleck, R. (Ed.): Geschichtliche Grundbegriffe. Historisches Lexikon zur politisch-sozialen Sprache in Deutschland. Stuttgart, 490-507.

Czycholl, R./Ebner, H. (Eds.) (1989): Zur Kritik handlungsorientierter Ansätze in der Didaktik der Wirtschaftslehre. Oldenburg.

Dewey, J. (1916): Democracy and education. An introduction to the philosophy of education. New York.

Dolowitz, D. P./Marsh, D. (2000): Learning from abroad: the role of policy transfer in contemporary policy-making. In: Governance: An International Journal of Policy and Administration, 13, No. 1, 5-24.

Euler, D./Hahn, A. (2014): Wirtschaftsdidaktik (3. Aufl.). Bern/Stuttgart/Wien.

Euler, D. (2020): Kompetenzorientierung in der beruflichen Bildung. In: Arnold, R./Lipsmeier, A./Rohs, M. (Hrsg.): Handbuch Berufsbildung (3. Aufl.). Wiesbaden, 205-217.

Flitner, A./Giel, K. (Ed.) (1980): Wilhelm von Humboldt – Werke in fünf Bänden. Band I: Schriften zur Anthropologie und Geschichte. Darmstadt.

Galperin, P. J. (1969): Die Entwicklung der Untersuchungen über die Bildung geistiger Operationen. In: Hiebsch, H. (Ed.): Ergebnisse der sowjetischen Psychologie. Stuttgart, 367-405.

Hanf, G. (2011): The Changing Relevance of the *Beruf*. In: Brockmann, M./Clarke, L./Winch, C. (Eds.): Knowledge, Skills and Competence in the European Labour Market. What's in a vocational qualification.London, New York, 50–67.

Harney, K./Zymek, B. (1994): Allgemeinbildung und Berufsbildung. Zwei konkurrierende Konzepte der Systembildung in der deutschen Bildungsgeschichte und ihre aktuelle Krise. In: Zeitschrift für Pädagogik, 40, No. 3, 405-422.

Harris, R./Guthrie, H./Lundberg, D./Hobart, B. (1995): Competency-based education and training: between a rock and a whirlpool. South Yarra.

Hodge, S. (2016): After competency-based training: deepening critique, imagining alternatives. In: International Journal of Training Research, 14, No. 3, 171–179.

Hodgen, M. (1935). *Workers education in England and the United States*. Kegan Paul.

Hopmann, S. T. (2008). Mind the gap: Dewey on educational bridge-building. In: Journal of Curriculum Studies. 41, No. 1, 7–11.

Jarvis, P. (2010). Adult education and lifelong learning: Theory and Practice. Routledge.

Jenewein, K. (2006): Elektrotechnik-Informatik. In: Rauner, F. (Ed.): Handbuch Berufsbildungsforschung. Bielefeld, 142–149.

Jenewein, K. (2010): Handlungsorientiertes Lernen in der Berufsbildung. In: Lernen & Lehren. Elektrotechnik-Informatik und Metalltechnik. Schwerpunkt Handlungsorientiertes Lernen – ein Streitthema, 25, No. 98, 53–55.

Jessup, G. (1991): Outcomes: The Emerging Model of Education and Training. London.

Joyner, C. W. (1995): The DACUM technique and competency-based education. In: Dennison, J. D. (Ed.): Challenge and opportunity: Canada's community colleges at the crossroads. Vancouver, 243-255.

Kaiser, F.-J. (1987): Grundannahmen handlungsorientierten Lernens und die Arbeit im Lernbüro. In: Kaiser, F.-J. (Hrsg.): Handlungsorientiertes Lernen in kaufmännischen Berufsschulen. Bad Heilbrunn, 11-48.

Kerschensteiner, G. (1904/1966): Berufs- oder Allgemeinbildung? In: Wehle, G./Kerschensteiner, G. (Hrsg.): Berufsbildung und Berufsschule. Ausgewählte Schriften, Band 1. Paderborn, 89-104.

Kerschensteiner, G. (1926): Theorie der Bildung, Berlin.

Kerschensteiner, G. (1979): Produktive Arbeit und ihr Erziehungswert. In: Reble, A. (Ed.): Die Arbeitsschule. Texte zur Arbeitsschulbewegung (4.Aufl.). Bad Heilbrunn/Obb., 41–53. Kerschensteiner, G. (2022): The school workshop as the basis for the continuation school (1908). In: Journal of Philosophy of Education, 56, 399-407. https://doi.org/10.1111/1467-9752.12670.

Ketschau, T. (2018): Reflexion zur Philosophie der Berufsbildung. In: Zeitschrift für Berufs- und Wirtschaftspädagogik, 114, No. 1, 85-108.

Ketts, J. F. (1994): The pursuit of knowledge under difficulties: from self-improvement to adult education in America, 1750-1990. Stanford.

King, K. (2014): Skills, competencies and knowledge in international translation and cooperation. In: Maurer, M./Gonon, P. (Ed.): The challenges of policy transfer in vocational skills development. National qualification frameworks and dual model vocational training in international cooperation. Bern, 35-47.

Klika, D./Schubert, V. (2013): Einführung in die Allgemeine Erziehungswissenschaft. Erziehung und Bildung in einer globalisierten Welt. Weinheim/Basel.

KMK (2021): Handreichung für die Erarbeitung von Rahmenlehrplänen der Kultusministerkonferenz für den berufsbezogenen Unterricht in der Berufsschule und ihre Abstimmung mit Ausbildungsordnungen des Bundes für anerkannte Ausbildungsberufe. Bonn.

König, R. (1965): Der Beruf als Indiz sozialer Integration. In: König, R. (Hrsg.): Arbeit und Beruf in der modernen Gesellschaft. Köln/Berlin, 123–136.

Kuhlee, D/Steib, C./Winch, C. (2022): Founding German vocational education: Kerschensteiner, Spranger and Fischer as key figures in the classical German VET theory. In: Journal of Philosophy of Education, 56, No. 3, 383–398.

Labaree, D. F. (2010): How Dewey lost: the victory of David Snedden and social efficiency in the reform of American education. In: Tröhler, D./Schlag, T. (Eds.): Pragmatism and modernities. Rotterdam/Boston/Taipei, 163-188.

Li, J./Pilz, M. (2023): International transfer of vocational education and training: a literature review. In: Journal of Vocational Education & Training, 75, No. 2, 185-218.

Lingard, B. (2000): It is and it isn't: vernacular globalization, education policy and restructuring. In: Burbules, N./Torres, C. (Ed.): Globalization and education: critical perspectives. New York, 275-297.

Marx, K. (1844): Ökonomisch-philosophische Manuskripte.

Marx, K. (1857): Grundrisse der Kritik der politischen Ökonomie.

McClelland (1973): Testing for competence rather than intelligence. In: American Psychologist, 28, No. 1, 1-14.

Mertens, D. (1974): Schlüsselqualifikationen. Thesen zur Schulung für eine moderne Gesellschaft. In: Mitteilungen aus der Arbeitsmarkt- und Berufsforschung, 7, No. 1, 36-43.

Morley, L. (2007): The X factor: employability, elitism and equity in graduate recruitment. In: Twenty-First Century Society: Journal of the Academy of Social Sciences, 2, No. 2, 191-207.

Mulder, M (2017) (Ed.): Competence-based vocational and professional education. Bridging the worlds of work and education. Technical and vocational education and training: issues, concerns and prospects, Volume 23. Cham.

Oeben, M./Klumpp, M. (2021): Transfer of the German vocational education and training system – success factors and hindrances with the example of Tunisia. In: Education Sciences, 11, No. 247, 1-25.

Parent, F. et al. (2010): A comprehensive competence-based approach in curriculum development: experiences from African and European contexts. In: Health Education Journal, 70, No. 3, 301-317.

Phillips, D./Ochs, K. (2003): Processes of policy borrowing in education: some explanatory and analytical devices. In: Comparative Education, 39, No. 4, 451-461.

Raggatt, P./Williams, S. (1999): Government, Markets and Vocational Qualifications: An Anatomy of Policy. London.

Ramasamy, M./Pilz, M. (2019): Competency-based curriculum development in the informal sector: the case of sewing skills training in rural South India. In: International Review of Education, 65, No. 6, 905-928.

Rehn, R./Schües, C. (2008): Bildungsphilosophie: Grundlagen, Methoden, Perspektiven. Freiburg.

Reich, A./Ho, T. T. H. (2017): Adapting international influences and retaining 'Vietnamese character' in VET in Vietnam. In: Tran, L. T./Dempsey, K. (Eds.): Internationalization in vocational education and training. Technical and vocational education and training: issues, concerns and prospects, Volume 25. Cham, 134-147.

Richard, D. (2012) The Richard Review of Apprenticeships. London.

Roth, H. (1971): Pädagogische Anthropologie. Band II: Entwicklung und Erziehung. Hannover.

Savery, J. R./T. M. Duffy (1996): Problem based learning: an instructional model and its constructivist framework. In: Wilson, B. G. (Ed.): Constructivist Learning Environments: Case Studies in Instructional Design. Englewood Cliffs/New Jersey, 135-148.

Scharmann, T. (1956): Arbeit und Beruf. Tübingen.

Schelsky, H. (1965): Die Bedeutung des Berufs in der modernen Gesellschaft. In: Schelsky, H. (Hrsg.): Auf der Suche nach Wirklichkeit. Düsseldorf, 25-35.

Schippers, S. (2009): Systemberatung zwischen Anspruch und Wirklichkeit: eine wirkungsorientierte Analyse der „Mubarak-Kohl-Initiative" in Ägypten. Marburg.

Smith, A. (1776): The Wealth of Nations. Indianapolis.

Söltenfuss, G. (1983): Grundlagen handlungsorientierten Lernens. Dargestellt an einer didaktischen Konzeption des Lernens im Simulationsbüro. Bad Heilbrunn.

Toepper, M./Zlatkin-Troitschanskaia, O./Kühling-Thees, C. (2021): Research in international transfer of vocational education and training – a systematic literature review. In: International Journal for Research in Vocational Education and Training, 8, No. 4, 138-169.

Tomlinson, S. (1997): Edward Lee Thorndike and John Dewey on the science of education. In: Oxford Review Education, 23, No. 3, 365-383.

Tramm, T. (1997): Lernprozesse in der Übungsfirma. Rekonstruktion und Weiterentwicklung schulischer Übungsfirmenarbeit als Anwendungsfall einer evaluativ-konstruktiven und handlungsorientierten Curriculumstrategie. Göttingen.

Tramm, T./Goldbach, A. (2005): Gestaltungsprinzipien und theoretische Grundlagen innovativer Schulbücher zur ökonomischen Berufsbildung – am Beispiel der „prozessorientierten Wirtschaftslehre". In: Wirtschaft und Erziehung, 6, 203-214.

Vonken, M. (2017): Competence, qualification and action theory. In: Mulder, M (Ed.): Competence-based vocational and professional education. Bridging the worlds of work and education. Technical and vocational education and training: issues, concerns and prospects, Volume 23. Cham, 67-82.

Wang, L./Jiang, D. (2013): Chinese vocational education: borrowing and reforming an interview with professor Dayuan Jiang, moe research fellow. In: Chinese Education and Society, 46, No. 4, 92-99.

Whitehead, N. (2013): Review of Adult Vocational Qualifications in England. London.

Winch, C. (2023): Learning outcomes: The long goodbye: Vocational qualifications in the 21st century. In: European Educational Research Journal, 22, No. 1, 20-38.

Wolf, A. (2011): Review of Vocational Education – The Wolf Report. London.

Womack, D./Jones, D./Roos, D. (1992): Die zweite Revolution in der Autoindustrie. Frankfurt am Main.
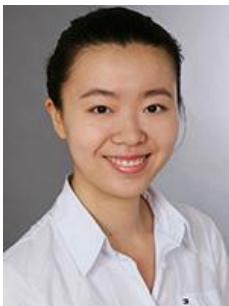
Yu, X. (2013): A comparative review on Chinese vocational education and training system. In: The Online Journal of New Horizons in Education, 3, No. 2, 1-7.

Zabeck, J. (2009): Geschichte der Berufserziehung und ihrer Theorie. Paderborn.

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