þÿ V E T a n d t h e C o m p e t e n c y - T e t r i s : I n c l u s i o n o f What, and Where?

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Article

VET and the "Competency-Tetris": Inclusion of Whom, to What, and Where?

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Abstract

The purpose of the article is to empirically analyse how the idea of inclusion is portrayed within the boundaries of the "Competency-Tetris": a metaphor that should not be confused with the Tetris® game but used to theoretically capture individualised, competency-based, and managerially governed Vocational Education and Training (VET). We argue that the meaning of social inclusion within and through VET is unclear and vested by the human capital doctrines and the neoliberal assumptions from which it is derived. Whom does inclusion in VET involve, and to what and where does inclusion take place? Employing design-based research (DBR) approach, we used abductive applications to analyse data produced through participatory ethnographic observations in VET (N=32) of which counselling sessions (n=29), meetings (n=2) and a workshop (n=1) were followed by subsequent semi-structured interviews (N=12) with VET counsellor and teacher practitioners. The results identified four abstracted themes: (1) Fitting the workforce auction; (2) Multi-professional support trajectories; (3) Inclusion of qualification measures; and (4) Social and cultural learning communities. Concerning inclusion, the Competency-Tetris materialised as a social divider,

providing the self-governing students with a fast-track to the "workforce auction," separating them from students in need of support in their learning. Because of the "go-forward" engine, equal learning for all students faces a U-turn whilst the economic value accumulated in competency-based qualification measures is accentuated. Albeit obscured, another aspiration starts to take form, requiring inclusion in VET to concern major domains of life, human encounters based on dignity, mutual respect, and social generosity approached as part of, within, and through VET.

Keywords: vocational education and training (VET), competency-based training, human capital, managerialism, qualification

Introduction

The "Competency-Tetris"[1] is utilised as a metaphor in this study to analyse the idea of inclusion within Finland's highly individualised, competency-based, and managerially governed Vocational Education and Training (VET).[2] Drawing on Cultural Historic Activity Theory (CHAT) perspectives (Engeström, 2001; 2014), the article applies the Competency-Tetris to capture four theoretically grounded observations: (1) competencies are commodities of human ability and inform education policies and learning; (2) the operations of competency-based training (CBT) are based on instrumentalism and empirical realism; (3) VET involves managerialist governing; and (4) student counselling and guidance align as pedagogical support for learning whilst neoliberal managerialist assumptions merely emphasise qualification progress.

This article aims to empirically analyse how the idea of inclusion is portrayed within the boundaries of the Competency-Tetris. The following sections elaborate on the four points introduced above.

The Competency-Tetris metaphor

The Competency-Tetris metaphor first captures the notion of competence that has dominated VET reforms since the 1990s. The notion of competence is closely related to skill in human capital theory and has been identified as a key catalyst in the rise of the knowledge economy (Lauder et al., 2012). Soonghee Han (2008) described the nature of competence as capturing the measurable and manageable characteristics located *outside* humans that materialise in instrumental ways *through* humans, blurring subjectivity regarding learning. From a CHAT perspective, the supply-exchange-demand chain determines the economic value accumulated in objects in the human to economic yield transformation. The opposite consideration of object is a fragment and, a horizon that mediates motives, that carries contradictions between the use

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[1] The Competency-Tetris should not be confused with the Tetris® game, although its progression echoes the game; hence the metaphor. The official Tetris® web-site (www.tetris.com/about-us) provides the following description: 'The Tetris® game requires players to strategically rotate, move, and drop a procession of Tetriminos [competency-units] that fall into the rectangular Matrix at increasing speeds [qualification progress]. […] It might sound simple, but strategy and speed [managerialism] can go a long way!' (Bracketed text added by the author).
[2] VET refers to preparatory VET and upper secondary youth and adult VET in Finland (Act 531/2017), in accordance with the European and National Qualifications Framework level 4.

value and exchange value within it. The shared object is constituted by the subject and the multi-voiced interrelations to the community and without the subject's constitution the object withdraws (Engeström, 2014). This tension is included in each theoretical subframe of the fourfold Competency-Tetris framework.

While the notion of competence is widely used to describe the overarching goal of VET, the logic of such a chain requires a more manageable concept. Thus, competence becomes "competencies" [*sic.*] that are treated as atomised pieces of human knowledge (Schaffar, 2021). Competencies convey a "workplace need" to achieve educational outcomes that require training in an "authentic" work situation (for Finnish VET-reform materialisation, see Finnish Ministry of Education and Culture [MINEDU], 2017). Hence, competence is a commodity of human ability as well as a school-based learning requirement aimed at ensuring that individuals become or remain employable and productive throughout their lives.

Next, the Competency-Tetris portrays competency-based training (CBT) in VET. Leesa Wheelahan (2009) described CBT as problematic because it is limited to observing action and experience rather than accessing disciplinary systems of meaning. Referencing Bhaskar (1998), she wrote that "CBT is a form of empirical realism based on atomism in ontology and epistemology, in which the 'real' consists of discrete, atomistic events that can be translated into unproblematic (empirical) descriptions of those events" (p. 234). In other words, the measurable unit of competency is presented as an "isolated bit of knowledge" that is relationally independent of anything beyond the units themselves. Units of assessment in CBT thus materialise the human ability "to act," which has a causal relationship with contextual events: clinical problems requiring solutions neglect the generative mechanisms that produce events and outcomes (Wheelahan, 2009). Subsequently, and guided by Young (2012), a qualification unit based on CBT can be viewed as being "emptied from the voice of powerful knowledge" since there is a fundamental difference between contextual experience and decontextualised knowledge (which is Bhaskar's critical realism extended with Bernstein, 2000; Durkheim, 1984).

The third point in the Competency-Tetris metaphor relates to the economic productivity driven by the managerialist governing of public institutions, which reformulates organisational activity within the production-mode that follows New Public Management (NPM) (Hood & Peters, 2004). Here, the focus moves from process and content to outcome-mapping, instruction, and the matching of measured criteria. As a result of VET's funding design (in Finland, MINEDU, 2020), optimal efficiency is represented by reducing the time taken to achieve the measurable credential competence or qualification via a reassembly of its units (Rosenblad et al., 2022). That is, managerialism is extended with CBT that produces a qualifications framework in line with market demands, which directs both the quality and the price of education (Allais, 2014). This position is maintained as long as the educational investment generates a

greater yield, a fundamental assumption of human capital theory (see Brown et al., 2020).

The fourth and final point of the Competency-Tetris metaphor describes how rigidly defined competencies/competency/competence standards require looser environments to enable efficient (Han, 2008) and effective production (Hood & Peters, 2004). The demand for unconstrained surroundings has substituted schedule-based structures with controlled organisational and individual autonomy (in Finland by reform 2014/18). Particularly in Finland, control has been connected to organisational effectivity and individual performance via a compulsory "*personal competence development plan*" (PCDP) (Act on VET, 531/2017). As is often required with envisioned affordances, student counselling was added to assist individuals requiring advice and administrative support to reach the desired level of success (Rosenblad et al., 2022). Utilising CHAT (see Engeström, 2001), we observed that when added to VET in this manner, student counselling can be portrayed as an object-informed, shared activity. Sanna Vehviläinen (2014) described such a model that emerged from the concept of a "jointly agreed-upon object" as an informer of the counselling process and thus learning support. Here, in relation to competence, the human readiness to act is guided by sensibility and a collaboratively mediated motivation (Engeström, 2014). In contrast, the guidance was undertaken as administrative control of the production-driven progress of CBT merely focuses on the achievement of outcomes guided by individualist-materialist neoliberal doctrines, regardless of the questions that uphold the meaning of subjectivity. The latter is described as behavioural governance when examined using the concept of *precision guidance* (Toivanen & Brunila, 2021).

The complete framework of the Competency-Tetris can describe the "customer-oriented and efficient" competency-based training approach (see Korpi et al., 2018). However, it also highlights the lack of clarity surrounding the meaning of social inclusion.

Inclusion in VET

The notion of *social inclusion* was introduced in the "Western world" in the 1970s following a foundational shift in human work from guild societies to production economies. From this point, social cohesion and "the human factor" developed as key concerns in modern work environments (e.g., Nilsson, 2010). In addition, an alternative notion to exclusion and poverty was desired: inclusion became part of the new perspective on economic growth as a constitutor of the welfare state, a context founded on human knowledge and the economic outlook of the World Bank (2013). Concerning VET and social inclusion, Asadullah and Zafar Ullah (2018) claimed that the "utility of human capital in economic growth increases in a national environment where every individual can benefit from economic opportunities equally" (p. 180). Based on Lauder et al. (2012) and Brown et al. (2020), it appears that human capital theory has remained silent regarding the content of learning and the meaning of education as essential elements in the social relationship between education and the labour market. Human capital theory cannot solely be used to understand how new

perspectives on the interactions between learning and working are developed or diminished; a broader lens is also required to examine how social class, gender, ethnicity, and age are innate societal power structures that influence who is best supported in the workforce. Whilst seemly neglecting job scarcity in favour of labour scarcity, human capital fails to explain relational aspects beyond its own theories on yield (Brown et al., 2020). Social inclusion and economy are likely intertwined, but the concept that social inclusion is dependent on the economy becomes more clear-cut as the definition is narrowed. However, Simplican et al. (2015) define social inclusion that holds interactions between human relationships and belonging to a community as major domains of life. Here, relationships and social bonds are considered as providing opportunities to build trust at different levels of social involvement (Simplican et al., 2015). In VET, there is a lack of transparency regarding relational aspects and – significantly and repeatedly (Billett, 2014) – the subjects of VET's collaborative activity.

To this end, we ask: Whom does inclusion in VET involve, and to what and where does inclusion take place?

Method

Design-based research

We applied design-based research (DBR) approach and recruited the participation of two large VET organisations in Finland, with the selection based on the responses of the VET school leaders following an initial request. Information sessions on the research project were provided, and consent to participate was obtained from 12 counsellor and teacher practitioners: eight and four from the respective organisations. The criteria for the practitioners' participation included defined responsibilities in counselling that involved VET-students' PCDPs. For more information on Finnish VET, we refer the reader to Studyinfo's web pages (2022).

Following DBR standards on developmental research affordances (Anderson & Shattuck, 2012), meetings were held in each organisation separately, in which research results were returned to the organisation in an anonymised form. In addition, the researcher discussed the potential practical and contextual implications of the findings with the practitioners and the school leaders. No other incentives were offered. The students that participated were between the ages of 16 and approximately 45 years. Consent was continuously monitored throughout the research process to ensure that all participation was truly voluntary. Anonymisation and storage of data were carefully managed throughout the research processes, where avoidance of any harm was a priority. The research follows the ethical guidelines of the Finnish National Board on Research Integrity (TENK, 2019).

Data

Two complementary datasets were produced between summer 2019 and winter 2020. The first dataset (D1) was based on ethnographic participatory observations (N=32) and the second (D2) on semi-structured interviews (N=12).

D1 includes transcribed notes from counselling sessions (n=29), notes from DBR meetings (n=2), and notes from a four-hour workshop on PCDPs arranged by one of the VET schools (n=1). The counselling sessions and the DBR meetings, lasted approximately one hour each. Two group counselling sessions of three- respectively four-hours, where 20-30 students together with the counsellor, a teacher and a special education teacher participated, were also observed. The researcher's focus during the observations was on relational aspects and collaboration between practitioners and students. The meetings and the workshop were included to explore the meaning of practitioners' responses, systems and structures concerning the PCDPs. D1 consists of 95 pages of text in 32 different word-documents (font size 11, line spacing 1.5).

D2 is based on recorded and transcribed semi-structured interviews of one hour that aimed to describe and explore the observational data. An interview guide was used. The framework of the guide was based on themes emerging from the analysis of D1. The themes involved autonomy; competency-based qualifications; construing of counselling and its processes; relational aspects; special educational needs; systems and structures. D2 consists of 120 pages of text transcribed from voice recordings (font size 11, line spacing

Analysis

For the analysis, all data were merged and coded in-vivo with the Atlas.ti software, from which 25 themes were constructed. The focus was on the meanings of the expressions and tensions emerging in the data, which were viewed to existing theories. While the theories initially chosen for the study provided a framework to describe the data, the data were also compared with a broader theoretical base to inductively explore the findings, refining the themes, and fulfilling the criteria of the abductive research approach (Timmermans & Tavory, 2012). The process thus evolved as a continuous shift in focus between theories and data. By examining the themes through the abductive application, theoretical perspectives informed the construction of abstracted themes.

We developed four abstracted themes that support the structuring of the results in a coherent form that is readable and scientifically appropriate. The abductive lens drew attention to the convergences or divergences between the abstracted themes based on the overlap or tensions between the theories. Table 1 lists the abstracted themes, the theories through which they were constructed, and the themes that were most frequently coded to each abstracted theme. In terms of *inclusion,* the abstracted themes are

presented in groups of two to illustrate their observed theoretical relationships. The abstracted themes are as follows: *Fitting the workforce auction* and *Multi-professional support trajectories*; *Qualification measures* and *Social and cultural learning communities*.

Table 1. Abstracted themes, theoretical perspectives, and the themes coded in the data.

Abstracted theme (frequency in the data)	Theory	Theme (frequency of the coded theme)
Fitting the workforce auction (D1=36; D2=44)	CHAT (exchange value of objects) (Engeström, 2014) Human capital (Lauder et al., 2012)	Learning vs. qualifying questions (23) Career, future, and the "go-forward pattern" (21) Guidance of work-based learning (17) Finances and money (9) Apprenticeship (5) Continuous admission and examination (5)
Multi-professional support trajectories (D1=26; D2=59)	Precision guidance (Toivanen & Brunila, 2021)	Psychological and psychosocial support (24) Multi-professional support and guidance (18) Problems in everyday life (17) Behavioural governance (12) Governance and control (8) Learning disabilities and diagnoses (6)
Qualification measures (D1=55; D2=93)	Human capital (Brown et al., 2020) Managerialism (Hood & Peters, 2004) Critical realism (Wheelahan, 2015)	Qualification requirements (26) Accreditation of competencies (24) Structure and content of PCDPs (21) Accreditation of prior study achievements (20) Individualised study (18) Qualification test (15) Information management/documentation (12) Qualification units, competency points (12)
Social and cultural learning communities (D1=24; D2=76)	CHAT (multi-voiced interactions with community; use value of objects) (Engeström, 2001, 2014)	Special support for learning (45) Areas and questions of responsibility (19) Time and resource requirements (18) Integration, language, and culture (9) Requested human encounters (9)

Results

Fitting the workforce auction and Multi-professional support trajectories

A comprehensive analysis of the observational data (D1) highlighted the students' consideration that VET facilitated their inclusion in society by enabling the knowledge required *for* work; they also described that to *become* a practitioner, they needed to work in ways that were meaningful to themselves and valued within society. The students believed that VET's learning processes enabled this inclusion by providing

appropriate learning opportunities. Counselling sessions, however, often focused on qualification units that applied to the student's PCDP to the processing of accredited prior studies and the calculation of competency points within these units. From the discussions when the students' PCDPs were formed, the interviewees in (D2), i.e., the VET teacher and counsellor practitioners, frequently mentioned "other teachers and education support professionals," such as the special education teacher. Less often they noted the inclusion of any representative from a division of labour, important from a CHAT perspective, that reflected the "workforce occupation," that is, an individual who was from outside the VET school but related to the system. A VET teacher provided the following observation:

> What has continued to surprise me for 20 years now is how little the workplaces are ultimately involved in VET when questions are discussed concerning how we are going to change and how we are going to learn. […] We have many workplaces that are not welcoming any students at all if we say that these are the requirements of learning outcomes [stated in the assessment criteria]. (Interview 12, Q43:12/13)

Although the main claim of the reform was to meet or match students' needs to those of the workforce (see MINEDU, 2017), the data included few comments that addressed how to work together at these boundaries. On the contrary, the issues that were emphasised were directly related to the students' "paths" towards qualification. Special education representatives, or other members of the student healthcare multi-professional teams, were mentioned extensively. The following example illustrates how the idea of inclusion was presented. The workplaces available for students in work-based learning appeared to be reserved for students with "the right adaptability":

> Counsellor: We have applied quite a tough line on being out learning in workplaces. If you can't handle the tasks at the workplace, then we've asked the employers to tell [the students] that this isn't the place for you, and then we cancel the contract. Then we start over, like from the beginning, here at the school: looking at what must be fixed. Sometimes it is enough that the student switches workplaces and you [as a counsellor] give that, eh… strong reprimand that, "you can't hold a job if you don't take care of things there." And that's enough for most of the students. (Interview 8, Q39:15)

The "self-governing" students (also identified in Niemi & Jahnukainen, 2019) continually emphasised their "motivation" to be a worker who obeys workplace rules. In these contexts, the student's behaviour and "attitude" were considered important. Below, a counsellor discussed inclusion *in* VET signalling that effectivity becomes a social divider that separates the self-governing students from the students who are kept within, or recalled to, school-based training to receive more targeted guidance and instruction:

> Counsellor: [I]nstead of thinking about the competency points [credentials] I think that having a group of 20 students, all will be different. We might have five [students] who really manage to learn quickly, not exactly as the "*go-forward*" pattern looks [shows quotation marks in the air], but who manage to do well. We're putting them out there and into work [workforce] because they are the ones the workplaces need. They can be given that special knowledge! That little "extra thing" which can't be given here in the school.

Researcher: Is that how it works?

Counsellor: Yes. They [workplaces] want the high performers: those they can supervise. Then we have 15 left, and five of them have severe learning difficulties needing special educational support and such things. And we have those 10 in between who stay [in school], becoming a smaller group to guide and work with here in the school, in our workshops [...] The VET reform provided these kinds of opportunities. (Interview 9, Q40:16)

In the data, the students following the "go-forward pattern" could be "outsourced" to a workplace and thus benefit from "extra" learning. This freed up resources for training and guiding the students who returned to the VET school, although they were assessed as not fulfilling the seemly unyielding criteria for self-governing students. Educational support in VET learning is targeted at the students with limited self-governing skills, the individuals who, referring to the data, lack "the right attitude" towards work or the "ability" to operate within the rules of the workplace. Concurrently, however, the data indicated that the needs of students requiring special education support are often overlooked. One counsellor expressed the following concern:

I think we don't take care of our students with special needs. Which is absolutely appalling. (Interview 10, Q41:1)

Accordingly, the concept of special needs in learning has been broadened and is now applied to almost every VET student:

Teacher: Yes, you can provide support, but then it's easy to conclude that everyone needs extra support in their learning. [...] They are all special students in one way or another. (Interview 12, Q43:21)

Counsellor: So, we are all a bit like special education teachers too. (Q33:7, Interview 2)

Teacher: Today, educational support in VET is considered as a pedagogical tool merely to manage [students] through studies: to qualify. (Field notes, Observation 26, Q13:1)

Counsellor: We don't really follow the three-step educational support model here in VET [as applied in compulsory and general upper secondary education]. It is that if you [as a student] do not manage at the level required, you can go to the special teacher and then get it [the requirements], like, adapted to your level. (Interview 8, Q39:16)

The participants frequently expressed how the problems with learning in workplaces are related to students failing to demonstrate the required credentials. When further problems arise, solutions are available but are dependent on tough judgements:

First, within the teacher team here, we tend to question if this at all is the right vocation for the student in question. If there are such problems that we consider as... like, no matter how much support is given it may be that the student is never going to manage within the vocation. (Interview 6, Q37:3)

Here, the student's choice of VET programme, which likely reflects their future aspirations, is questioned: the student's present attitudes and adaptability become the critical aspects that either enable or disable the "earning of competence". Within counselling, we found that special educational needs in learning are related to the psychological trajectories of therapeutic habitation, viz. precision guidance (for conceptualisation, see Toivanen & Brunila, 2021). An example of this relationship was provided by two counsellors working with students with special educational needs:

> Often, we assign time with the school psychologist, and when someone has economic worries and therefore cannot study, we send them to the other support staff. (Interview 10, Q41:9)

> What I'm disappointed about doesn't concern anyone here personally, I am referring to the entire system. That is, a student entering psychological healthcare services here in VET can be young people or adults who don't feel well, or whose studies are lagging behind. I seldom see anyone manage to get themself back to studying from there, recovered and healthy. It's like the student transfers into that psychological care system then, and slowly but surely, changes study place, quits, or drops out, just like everything was left hanging. (Interview 2, Q33:25)

The researcher discussed similar concerns with the practitioners. Their statements sometimes rejected the question of learning, which was unexpected since the discussions addressed special educational needs *in* learning. One counsellor gave the following explanation:

> The important thing is to make them [the students] understand what they should do. That is also the hardest thing, getting the message through that these things [tasks in CBT] must be done and in this order. (Interview 8, Q39:2/3)

The researcher and counsellors also discussed the transition from youth unemployment to VET:

> Counsellor: This programme is quite flexible because of the qualification requirements. The issue of guidance is extensively included there since the whole idea of this programme is to guide the students forward. (Interview 7, Q38:21).

The Competency-Tetris encourages a continuous focus on going forward as a sign of progress, an approach based on neoliberal assumptions. The data showed that speculation about the future in this context appears to be founded on intense entrepreneurial thinking combined with therapeutical actions (see, Brunila et al., 2020). The ideas of inclusion described above tend to target two pathways to a successful future: the first is a direct route via fitting to the *workforce auction* (Lauder et al., 2012); the second is via support trajectories that accommodate students who do not fit the model and therefore require a viable solution. When applying CHAT, human capital theory, and precision guidance, the Competency-Tetris functions as a divider of current social activity but is also perceived as "enabling" inclusion to ensure future economic productivity.

Qualification measures and Social and cultural learning community

The calculating approach of the Competency-Tetris within CBT measures credentials (competencies) that are individually set apart to directly identify the differences between the current "(l)earned" competencies and the competencies yet to be gained. This approach appears to highlight a cultural disparity in the assessment of students' credentials that relate to their prior vocational qualifications. For example, a counsellor stated:

> Well, we cannot fully accredit [prior qualifications]. Indeed, we have general subject studies that can be accredited but not when it comes to professional subject areas. I have, for instance, students from Asia with prior high degrees in the healthcare sector. We cannot accredit much from these degrees, even at the basic upper secondary level. The content, rules, and acts are nationally so different from each other. They might get parts of their prior qualifications accredited, but then they must supplement the rest and show the qualification tests again. They are frustrated most probably because their previous studies are not considered, but we can't really do so either. […]
>
> Here, I can rely on the system, because I think the person probably knows s/he is in another country. If I were to go to another country, then... I would also know that... I wouldn't expect that either. (Interview 2, Q33:40-42)

The cultural value and content of knowledge seem to differ from the assessment of competency regarding credentials, a stance emphasised in Brown et al. (2020). Human capital and global auction models are limited by the following problem: *not all* learning equals earning. When interviewed, a teacher explained this clash:

> If we want it to work so that we learn competence today, we still have a very long way to go.
>
> Researcher: Can you elaborate on that?
>
> Teacher: Competence has no shortcuts, it has nothing to do with credentials, and it comes when you have learned something, and you really know it. But learning takes a long time and you have to get that feeling of "aha! It's like this!" Then it has really sunk in. (Interview 12, Q43:24)

We found that subjective expectations clashed with the structural categories used to measure competence and knowledge based on content. Questions concerning the accreditation of competence conflict with the rationalised competencies category as an informer of learning, as the qualification requirement does not clarify the content and occupation of learning (e.g., Young, 2012). The teacher quoted above described learning and knowing as being different to competence. In addition, the data also extensively indicated that qualifications based on CBT were simultaneously frustrating for some students when certain aspects of knowledge were limited or even declined due to restrictive criteria. CBT can accelerate the progress of students benefiting from the qualification approach; however, the Competency-Tetris may provide limited opportunities for students in less privileged positions.

Counsellor: [I]t's a giant puzzle. And it doesn't function well at all. It's really limping, the whole thing where one recognises oneself as, like, in a way we have failed. (Interview 11, 42:1)

Counsellor: Let's say, I might have time to capture some idea of the students' study achievements. But at the individual level, I don't have the time to form an understanding. So, it's like this then, when having group counselling sessions, I might portray some picture of the counselees as a group. But then there are the ones who do not come to these sessions and those who don't go as a group. Maybe that's a difficult moment here. We have so many individual solutions. I have, for example, a group with 17-year-old youths that started last year. Five of them do not follow any group at all, they have individualised solutions and are studying in three different towns, and all of them have different core competence areas. […] I would need to have more counselling with them. (Interview 2, Q33:38)

Counsellor: In the personal competence development plan, there are the student's choices of qualification units, competence areas, and modes of work-based learning. We are to obey these choices as rule and law. (Quote from Observation 31, field notes, Q71:5)

From this perspective, the Competency-Tetris promotes social engineering assumptions and calculated credentials; "earning of competence" is rejected as a practice that utilises relational processes to ensure people are learning how to work together. Learning then becomes biased by individual outcome measures, and the cultural community of learners separates into smaller groups of individuals:

Counsellor: What's most frustrating is the technical things. That you're expected to know a lot of things, and then when it doesn't work, it is kind of left hanging [...] Not that you must plan, but then it doesn't work in practice. Things are expected to go a certain way and they don't. (Interview 8, Q39:4)

Opportunity and imagination are reduced to technicality and choice: the jointly agreed-upon object in student counselling (see Vehviläinen, 2014) has been replaced by a target-like measure (also Rosenblad et al., in review). The student counselling (fourth point) in the Competency-Tetris merges present activity into a non-inclusion paradox:

It kind of goes wrong. It must not be technical; it should be pedagogical! (Interview 2, Q33:24)

That is, the approach of technical individualisation, which aims to exchange a dialogical human meeting with calculated credentials, is presented as a fallacy (gaining resonance in Rosenblad et al., 2022).

Researcher: If you were to wish, what would you like to get out of counselling today in VET?

Counsellor: More human encounters.

Researcher: More meetings between people?

Counsellor: Yes. In earnest. I don't believe in any better computer programs here, not in anything like that. What I believe in is that humans must meet and that someone will have the time to listen to what is said in that meeting. I think every adult here in VET should do just that. (Interview 10, Q41:10)

The excerpt above illustrates the hope frequently expressed by the participants when responding to a standardised question: the practitioners identified that a different approach was possible and desirable,

but it is out of reach in the present programme.

Discussion

This article has analysed the idea of inclusion in VET within the boundaries of the Competency-Tetris metaphor, and addressed the *inclusion of whom, to what, and where.* The results revealed four abstracted themes: (1) Fitting the workforce auction; (2) Multi-professional support trajectories; (3) Inclusion of qualification measures; and (4) Social and cultural learning communities.

Fitting the workforce auction

The results suggested that Competency-Tetris approaches act as social dividers that generate a social non-inclusion paradox. That is, only self-governing students fit the workforce auction demand if demonstrate the "right" attitudes and adaptability to specific workplace rules. Hence, the "go-forward" engine may help some individuals achieve continual success in inclusion in employment. Simultaneously, another group of students are prevented from accessing workforce inclusion and, in turn, risk experiencing the stigma of failure. Confirming Brown et al. (2020) in contextually illuminating that *workforce scarcity* is at the same time *job scarcity*, the idea of inclusion *in* VET now appears to be focused on those students who directly fit the workforce auction; thus, "freeing" resources to target the support trajectories offered as substitutes for individuals who do not (yet?) meet the designated standard. Both cases emphasise future speculative productivity whilst diminishing the idea of inclusion as an equal collaborative community for all learners.

Multi-professional support trajectories

According to the Competency-Tetris, the concept of individualisation takes a U-turn when the question of equal learning for all becomes a focus. Thus, the problematic division between the "self-governed" and the students in need of learning support gains impact as a social divider. This has prompted the provision of cost-effective directed "services" to students *and* workplaces. The results showed that there was a perception among the practitioners that the Competency-Tetris does not adequately provide for the students in need of learning support. Instead, they are provided with a psychologically precise opportunity to qualify, which is materialised through precision guidance (gaining resonance in Toivanen & Brunila, 2021). Through the Competency-Tetris, the practitioners identified potential (human capital) value in every individual – but first, students must find out how to qualify. The results of this research suggest that the Finnish VET reform may be a customer-oriented bolster for effectivity (Korpi et al., 2018); simultaneously, the reform overlooks the overarching meaning of a purposeful life and deflects questions concerning the importance of social relationships. Thus, the results appeared to confirm the findings of Han: competence

in the form of human capital has the power to break apart the foundation of subjectivity to reward the "buyers" of knowledge resources rather than satisfy the needs of learners (Han, 2008, p. 33).

Qualification measures

The practitioners' expressions emphasised how technical assumptions of performance temper the pedagogical processes of learning. The results suggested the Competency-Tetris focuses on the guidance of individualised qualification progresses rather than on the learning processes. This suggests that inclusion in VET is aligned with the sectors of the qualification system based on measures that fade social togetherness (as defined by Simplican et al., 2015). The assumption of the qualification unit follows predictable outcomes, and the credentials of instrumentalism are tied to the austerity of empirical assessment criteria (see Wheelahan, 2009). Overtones of social engineering and instrumental outcomes seemed to be placed above sensibility, social bonds, and human encounters. Human capital objectives indicate that future economic growth ought to be secured through investment in credentials (Brown et al., 2020); nevertheless, all the mappings, metrics, and instructions of the qualification progression risk losing sight of the relational aspects of learning. Accordingly, when engaging the Bernsteinian perspective extended with the critical realism of Wheelahan (2009), CBT creates barriers to VET students' recognition of power relations, misconduct, and social exclusion, and according to CHAT (see Engeström, 2001), limiting their access to developmental aspects of learning and critical evaluation of collaborative work methods.

Social and cultural communities of learning

The results revealed that both human capital economists and NPM consultants are misled by the same mistake seen in the outcomes of the VET reform: they predict a future that looks identical to the past (affirming Brown et al., 2020, p. 166f). Human capital thus obeys the goal-rationalised view of change (Engeström, 2014), which prevents culturally empowered development when working around critical conflicts (Rosenblad et al., in review). The concept of learning *equals* earning is no longer viable: its emphasis loses value in a world disrupted by climate change, radical populism, pandemics, and threats of war. The results of this study highlighted a contradiction between individualist-materialist values and the formation of social and relational aspects. The economisation of VET has emphasised the exchange value of objects of human activity whilst the use value has become harder to grasp (Engeström, 2014, pp. xvi-xvii). Our results confirm the use value has not vanished though: people ultimately seek dignity, mutual respect, social generosity, which can all be approached as part of, within, and through VET.

Conclusion

The Competency-Tetris metaphor provided the following answers to the question of whom inclusion in VET involves, and to what and where inclusion takes place.

Inclusion materialised as a social divider, providing the self-governing students with a fast-track to the "workforce auction," separating them from students in need of support in their learning. Because of the "go-forward" engine, equal learning for all students faces a U-turn whilst the economic value accumulated in competency-based qualification measures is accentuated. Albeit obscured, another aspiration starts to take form, requiring inclusion to concern major domains of life, human encounters based on dignity, mutual respect, and social generosity approached as part of, within, and through VET.

Limitations and further research

The small number of organisations participating in this research may have limited the results to a reflection of local culture. The inclusion of several additional organisations would have expanded the cultural divergence in the analysis. Further research should evaluate whether the results of this study reflect national concerns or whether they reveal global trends, as VET reform should be primarily assessed as a global project.

Studies conducted in OECD countries prior to the Finnish VET reform 2014/18 examined how inclusion in VET materialised, and Finland was presented as a "star performer:" identified as having unique attributes that enabled significant achievements, such as maintaining the smallest gap between the most advantaged and the disadvantaged students (Reay, 2012; Wheelahan, 2015). It remains unclear whether a small gap is sustained, and by which kind of measures any gap will be explained.

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The authors report there are no competing interests to declare.

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