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From athletic talent development to dual career development? A case study in a Finnish high performance sports environment

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ABSTRACT

The focus of dual career (DC) research has shifted from exploring individual experiences within *Athletic Talent Development Environments* (ATDEs) toward understanding the impact of the environment and the broader cultural context on individuals' developmental trajectories in *Dual Career Development Environments* (DCDEs). To comply with national and EU recommendations for socially responsible elite sport, many successful ATDEs list DC as one of their primary values and advertise themselves as DCDEs in order to attract more athletes. The present study aimed to evaluate whether and how a talent development environment for youth athletes in Finland has transformed from an ATDE to DCDE by exploring the environment's success factors and organisational culture. This study is grounded in the theoretical framework of *Holistic Ecological Approach* and follows the *Real-Time Case Method*. Principal methods of data collection included interviews, observations, and documents. The results indicated that the environment was characterised by an incoherent organisational culture, and the environment was identified as an ATDE rather than a DCDE. We suggest that for the Finnish sports environment to successfully transform into a functioning DCDE, changes in the organisational culture are necessary and DC recommendations should be integrated into the environment to provide resources for student-athletes to develop a balanced life and the prerequisites to succeed in future endeavours.

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Integration of sport with education or work has been termed dual career (DC) in the European sport psychology discourse. It has been argued that developing a DC would provide athletes with resources and competencies to combine different domains of life, help create a balanced lifestyle, and improve well-being (Linnér et al., 2019; Stambulova et al., 2015). However, DC pathways are also associated with potential challenges, such as fatigue, role strain, and scarce social life, for the student-athletes attempting to find a balance between the different demands (Condello et al., 2019; Stambulova et al.,

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2015). Thus, DC athletes would benefit from a supportive environment that provides DC competencies (e.g., planning, management, adaptability), focus on the whole person, and where individuals from different domains work together (De Brandt et al., 2018; Knight et al., 2018; Linnér et al., 2019). Since the European Commission (2012) published the DC guidelines for environments adopting talent development policies, subsequent research on environmental influences has mainly focussed on the actors in the student-athletes' microenvironment (e.g., peers, coaches, and teachers) that underpin the athletes' development (Stambulova & Wylleman, 2019).

In a recent review, Stambulova and Wylleman (2019) recommended that DC research should adopt a holistic environment approach and the *Holistic Ecological Approach* (HEA) has been suggested as being key to broaden the understanding of the social factors that influence student-athletes' developmental trajectories (Henriksen et al., 2020). Originally, Henriksen et al. (2010) introduced the HEA in athletic talent development research to examine *Athletic Talent Development Environments* (ATDEs), and recently, the Erasmus+ Sport project Ecology of Dual Career (ECO-DC) used the HEA to understand the *Dual Career Development Environments* (DCDEs) across Europe. Whereas ATDEs aim to guide talented athletes to reach the highest levels in their respective disciplines (Henriksen & Stambulova, 2017), DCDEs aim to encourage athletes to combine their sporting pursuits with education or work (Morris et al., 2020). Henriksen et al. (2020) consequently implemented the HEA in the study of a Danish athlete-friendly university and found that a successful environment (a) had a DC support team working to integrate efforts; (b) arranged individual solutions and facilitates athletes' choices through inspiring stories; (c) connected student-athletes via narrative resources; (d) taught student-athletes DC skills and encouraged them to take responsibility for balancing their DC endeavours; and (e) had a philosophy that puts sports first and recognised that finding a balance is a process and that student-athletes must be seen as whole persons.

Küttel et al. (2018) conducted a cross-national research emphasizing that when the new DC guidelines are applied at a national level, it is important to be aware of the gatekeepers' (those who have the power to decide who gets particular resources) tendency to base DC actions on their basic assumptions—in other words, on their taken-for-granted beliefs and feelings (Schein, 1990). Thomsen and Nørgaard (2018) found that many sports clubs expressed inconsistent statements and used education as a strategic instrument to recruit the most talented athletes. Henriksen et al. (2014) reported similar statements from a study of a less successful ATDE, where managers and coaches highlighted that they have a balance between student's sport and academic development, however, they found an incoherent organisational culture that failed to provide guidelines on how a student-athlete should develop in different domains. This suggests that sports environments might brand themselves as being something they are not (e.g., advertise themselves as DCDEs) by using rhetoric that follows the recommendations in order to attract more athletes. However, a real transformation of an environment requires changes in its organisational culture (Schein, 1990).

The European Commission (2012) advocates for the responsibility in supporting athletes in preparing for life after sport. A shift in focus from the individual student-athletes to the whole environment (i.e., study domain, sports domain, and private life domain) facilitates a broader understanding of the student-athletes developmental trajectories in DCDEs and the functioning of the environment. The field of DCDEs is relatively unexplored and

while the recommendations and demands for changes in organisational culture have originated at the top (European Commission, 2012; Finnish Olympic Committee, 2020), no previous research has examined how the talent development environments have integrated and implemented the DC guidelines. To evaluate whether and how an ATDE for youth athletes in Finland has transformed into a DCDE, we examined the current environment of a Finnish sports academy. The study was guided by the following research questions: (a) What is the organisational culture of the Finnish sports academy? (b) How is DC development organised in this academy? (c) What are this academy's DC success factors?

Theoretical framework

This study is based on the HEA inspired by the *ecological psychology* (Bronfenbrenner, 1979) of human development. The aim of the HEA is to extend the understanding of athlete development from the individual level to the environment level. Based on the HEA, Henriksen et al. (2010) developed the *Environment Success Factors* (ESF) model. Furthermore, Henriksen et al. (2020) presented a *Dual Career Environment Success Factors* (DC-ESF) model, where organisational culture is substituted by a DC philosophy (integrated set of key ideas and values) that describes how DC support should be organised to increase the effectiveness of dual career development environments. However, we have chosen to use the organisational culture from the original ESF framework (Henriksen et al., 2010) as we feel that organisational culture is vital in reaching our study aims. Hence, our model is a combination of the original ESF model and the DC-ESF model (Figure 1). The working model first illustrates the preconditions (e.g., finances, facilities, and human resources) that are available at the environment and the reasons for student-athletes to apply to the studied environment. Processes including activities, coordination, and support services are daily functions that, together with the organisational culture (Schein, 1990), affect the individual development of the student-athletes. The aforementioned elements contribute to the levels of success, effectiveness (success in producing desired outcomes), and efficiency (ability to accomplish a job with a minimum expenditure of time and effort) in the environment (European Commission, 2017). According to the European Commission (2017), when evaluating efficiency of the DCDEs, DC service providers should consider the ability to provide resources efficiently, the communication between stakeholders, and the policies and procedures to help resolve problems experienced in the DC. Finally, the ESF model is based on the organisational psychology of Schein (1990). Therefore, we have chosen to define organisational culture as

a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way of to perceive, think, and feel in relation to these problems. (Schein, 1990, p. 111)

Moreover, organisational culture in the ESF model consists of three levels: artifacts, espoused values, and basic assumptions. Artifacts are the physical manifestations of the environment, including visible organisational structures and processes. Espoused values are explanations of what the environment aims for (goals, strategies, and philosophies). Underneath the artifacts and espoused values are the unconscious actions, and resistant to change values, known as the basic assumptions.

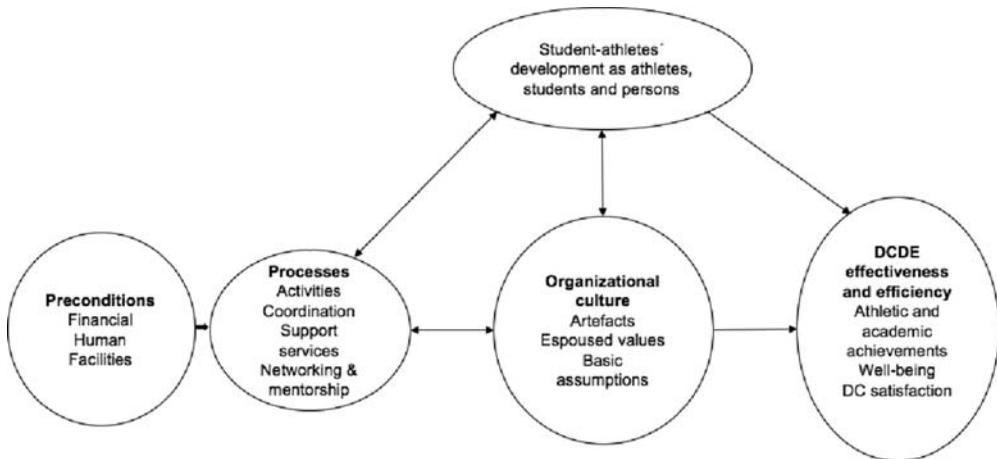


Figure 1. The dual career ESF working model.

Organisational culture change has become a tool for sport psychology practitioners to improve elite team environments (Cruickshank et al., 2015; Henriksen & Stambulova, 2017). The motivation to change culture could arise because the new culture is expected to be more successful or the new culture is imposed from above. However, scholars (Maitland et al., 2015; McDougall et al., 2019) have noted that culture is treated as an easily transformable entity that can be manipulated by practitioners in sports, whereas organisational culture scholarship (Asch & Graeme, 2002) outside of sport has pointed out that culture change is often anything but a straightforward process and is likely to involve resistance. In this study, we see culture as dynamic (top-down processes also work bottom-up) and multi-level (national culture affects organisations, which further affect individuals' values and beliefs) construct and recognise that the history of an environment influences its functions (Martin, 2002).

Methods

The present study is based on the data collected from a project (ECO-DC) that received ethical approval from the Ethics Committee of the Liverpool John Moores University and University of Jyväskylä. We selected the case study design to investigate the Finnish sports academy and its complexity within a real-life context from multiple perspectives and to develop a deep understanding of its holistic and meaningful characteristics (Hodge & Sharp, 2016). The present study was organised as a qualitatively oriented instrumental case—that is, “the case is of secondary interest, it plays a supportive role, and it facilitates our understating of something else” (Stake, 2005, p. 445). In other words, we attempted to gain insight into how DC recommendations are implemented to produce culture change in a sport environment (i.e., the sports academy). We acknowledge that the present study may not provide context-independent guidelines to be followed across environments, however, it can provide actors in the field of DC with an example (Flyvbjerg, 2006).

We positioned this study within the philosophical realm of critical realism, since we aimed to explain social-psychological phenomena in a Finnish sports academy. Critical

realism is one perspective within the broader umbrella of realist approaches that subscribe to an assumption that there is a reality independent of our knowledge of it (ontological realism) while maintaining that all our knowledge is fallible and theory-laden (epistemological constructivism). The critical realist approach presented here uses Bhaskar's (1989) stratified ontology. According to the Bhaskar (1989) the world has three overlapping levels: empirical level (i.e., observed experiences and events); actual level (i.e., unobserved but occurring experiences); and real level (i.e., unobservable causal powers). Critical realism is especially relevant when studying emergent psychological processes in a particular socio-cultural context (Ryba et al., 2016, 2020), and complex phenomena such as organisational culture (Maxwell, 2017). Furthermore, Wiltshire (2018) stated that critical realism has the potential to produce impactful research (i.e., positive influence on the public policy or culture) by directing researchers to focus on explaining the enduring social relations that produce real-world problems.

Using the HEA, we investigated the sports academy holistically, focussing on key agents in three domains of the environment: sport, study, and private life. The ESF working model was used to understand and explain the transformation of the environment from an ATDE into a DCDE. This was accomplished by employing the ESF working model as a theoretical basis and changing it into an empirical model based on the evaluation of the empirical data collected in the environment (Henriksen & Stambulova, 2017).

The selection process and the introduction of the sport environment

According to the Finnish Olympic committee's website (2020), there are 20 sports academies in Finland. We used an information-oriented case selection method—that is, we chose an academy that had been established before DC policies were implemented—in order to study how the Finnish sports academy has transformed from an ATDE into a DCDE. The high school that operates alongside the academy is a middle-sized institution (housing about 300 students), whose student body is composed of both student-athletes and non-athlete students. Student-athletes live either in the dormitories or in private housing. Student-athletes and coaches chosen for the case study represented a respected endurance sport that requires a high volume of training. The participants (Table 1) of the study comprised coaches, teachers, student-athletes, the principal of the school (a gatekeeper), a school counsellor, a mental trainer, a dormitory attendant (i.e., a person who supports student-athletes in the dormitory), and the head of the academy (a gatekeeper). Participants were given pseudonyms, and recognisable information about the environment has been kept to a minimum to maintain confidentiality.

Interviews

The first and third authors conducted semi-structured interviews in the environment. The semi-structured interview guides that were created by the ECO-DC consortium and translated by the third author allowed the gathering of data on key items while simultaneously leaving participants with more freedom to reflect and discuss topics excluded from the guide. The interviews covered the thematic areas of environmental resources (e.g., how would you describe the main resources of this DC environment?), social support (e.g., who do you consider as key helping persons in your effort to combine sport and

Table 1. Overview of data collection.

Observations Place	Activities observed	Informal interviews
At the school (12 h)	Classes and teaching with student and non-student athletes Everyday interaction School activity and behaviour	Mental trainer Dormitory attendant 11 student-athletes
Dormitory (1 h)	Student-athlete free time activities Student-athlete behaviour	1 former student-athlete 2 coaches
At the sports academy (6 h)	Training and coaching Meetings Everyday interaction	
At the competitions (5 d)	Coaching and student-athlete behaviour	
Semi-structured interviews		
Interviewee	Time	Place
High school principal	45 min	Sports academy cafe
The head of the academy	50 min	Meeting room
Teacher Jaana	37 min	Classroom
Teacher Milla	54 min	Classroom
Teacher Emmi	58 min	Cafe
Student counsellor Pihla	150 min	Phone
Student athlete Miika	21 min	Sports hotel cafe
Student athlete Johanna	46 min	Sports hotel cafe
Student athlete Viljami	38 min	Sports hotel cafe
Student athlete Anniina	33 min	Meeting room
Student athlete Tanja	48 min	Meeting room
Student athlete Paavo	25 min	School building
Coach Juuso	50 min	Sports hotel cafe
Coach Mika	49 min	Meeting room
Document analysis		
Class schedule, website (school, academy, municipality), reports of the statistics of the sports academy (e.g., graduation rates, medal results, number of elite athletes) social media, race results.		

school), and the culture of the environment (e.g., how would you describe the values and attitudes regarding the DC in this environment?). All participants were provided with a consent form prior to being interviewed and were informed of the objectives of the study as well as of their right to withdraw at any given time.

Observations

In an attempt to achieve contextual sensitivity, we also employed participant observation (Spradley, 1980). According to Tangaard (2006), participant observation is a suitable method to research social relationships because it enables the observation of a phenomenon or a participant under more authentic circumstances and aids in understanding the culture in more depth. For the observations, we spent a total of 11 h at the school, 5 days at competitions, 6 h at practice, and 1 h at the dorms. These hours consisted of informal talks with student-athletes, coaches, and teachers as well as observations of interactions between the actors in different situations (classroom, competitions, and practice). The first author, who has a background in sports coaching, observed coaches and student-athletes during practice, competitions, and student-athletes' social events. The third author, whose background is in education, observed teachers and student-athletes within the school as well as at the dormitory. Notes were taken after observations and were used as data items in the thematic analysis.

Analysis of documents

Archives and documents were also employed as a substantial data source. The academy's and school's social media accounts, websites (of the school, the academy, and the municipality), the academy's training plans, competition results, class schedules, bus schedules, and the summary of the statistics of DCDEs in Finland obtained from the Research Institute for Olympic Sports (2019) were juxtaposed with interviews and observations in order to understand the essential features of the environment's success factors.

Data analysis and interpretation

The data were analyzed by using thematic analysis at the latent level (Braun et al., 2016). Thematic analysis was connected to the data-driven and theory-driven processes. This approach was chosen to understand participants' experiences and find out whether these experiences could be understood according to the theoretical framework of the HEA (Henriksen et al., 2010) and the organisational culture (Schein, 1990). In line with our critical realist approach, the generation of themes was influenced by the three levels of ontology (Wiltshire & Ronkainen, [under review](#)).

The first author read actively through all the transcribed interviews several times to become familiar with the data. In the data-driven coding, the data was sorted into codes, which represented the most basic unit of data (e.g., "going to school interferes recovery"). At this stage, it was possible to look for demi-regularities and similar excerpts found in the transcripts were segmented into themes (e.g., the previous quote was categorised under the theme *athletes skip and come late to class*), which comprised a collection of quotes expressing participants' experiences. In critical realist approach, these themes can be described as empirical themes attempted to describe participant's intentions, hopes, concerns, feelings and beliefs as they are evident in the data (Wiltshire & Ronkainen, [under review](#)). Next, the first author moved from descriptive statements to a plausible statements and empirical themes were developed into inferential themes (Wiltshire & Ronkainen, [under review](#)). Inferential themes refer to inferences and conceptual redescrptions. For example themes *athletes skip and come late to class* (i.e., participants expressed that going to school interferes with their recovery) and *inspiration by the alumni's achievements* (i.e., participants expressed that they believed that being in the environment makes it possible to reach the elite level) developed in to the inferential theme *we make (athletic) stars* (i.e. being part of the environment provided a promise of reaching elite level and guided athletes on how to live). Finally, the empirical themes and inferential themes were categorised into the ESF working model. The analysis for all the participants was compared for similarities, differences, and patterns in the data, which were synthesised to describe the preconditions, processes, artifacts, espoused values, basic assumptions, and environment effectiveness and efficiency (e.g., *we make stars* was categorised under basic assumptions). The initial empirical ESF model (Henriksen et al., 2010, 2020) and the mapping of Schein's three levels of organisational culture were based on the discussions and the interpretations of the first, third, and fifth author, and was later modified based on the data-driven and theory-driven processes.

We considered the quality of research to be in line with a realist perspective (Ronkainen & Wiltshire, 2019), and our consideration of quality was aligned with the assertion that

some interpretive accounts can be more accurate than others. We sought to address threats to validity by considering three principles (Maxwell, 2017): descriptive validity (how well the researcher's description corresponds to the available facts), interpretive validity (how well the researcher has understood participants' meanings and intentions), and theoretical validity (how well the researcher provided an accurate explanation of the phenomena). First, to achieve descriptive validity, note-keeping was done as soon as possible after observations and interviews (Maxwell, 2017) in order to improve the accuracy with which authors could remember the events they had witnessed. Second, to achieve interpretive validity (Maxwell, 2012), the first and the third author discussed whether they agreed what participants meant by saying something and later, the third and the fifth author engaged in a process meant to critically review the first author's assumptions and initial interpretation of data to find the most plausible interpretation. Student-athletes from different grades and backgrounds were selected in order to gather a wide variety of perspectives on the environment to understand the different meanings and intentions relevant for understanding how the environment functioned. The first and the third authors also presented and discussed the findings of the study in the environment (a joint meeting with coaches, teachers, a student counsellor, the head of coaches, and the principal), which supported the interpretations of the data. Third, our analysis were guided by theoretical validity (Maxwell, 2017), for example, all the authors discussed how existing assumptions might be obscuring the phenomena and reviewers acted as critical peers who challenged authors' interpretations. Additionally, the initial data were complemented afterwards by non-structured interviews with the mental trainer and the dorm attendant and a semi-structured interview with a school counsellor to get an accurate picture of the environment.

Results

The empirical version of the ESF model based on the case environment (see [Figure 2](#)) summarises the factors affecting the environment. Below, we present the findings related to the preconditions, processes, and organisational culture, followed by their effects on the student-athletes' development and achievements, and the environment's effectiveness and efficiency from the perspective of sports, school, and private life. The results are organised under the general categories of the ESF model.

Preconditions

Trust in coaches, motivating conditions, professionalism, and attractiveness were central themes when describing the facilitative preconditions of the environment. A third-year student-athlete Viljami (male) offered an example of the coaches' qualifications and conditions in the environment: "in terms of sports, these like, conditions and coaches, the level of coaching's definitely really high, probably the best there is in Finland." All the interviewed student-athletes stated that they believe that coaches have the competence to facilitate their athletic development. Other professionals (e.g., doctors, physiotherapists, and mental trainer) and the university's sport science services further supported athletic aims. The mental trainer and a physiotherapist were hired to support the athletically most successful student-athletes and to educate coaches. Preconditions were facilitated

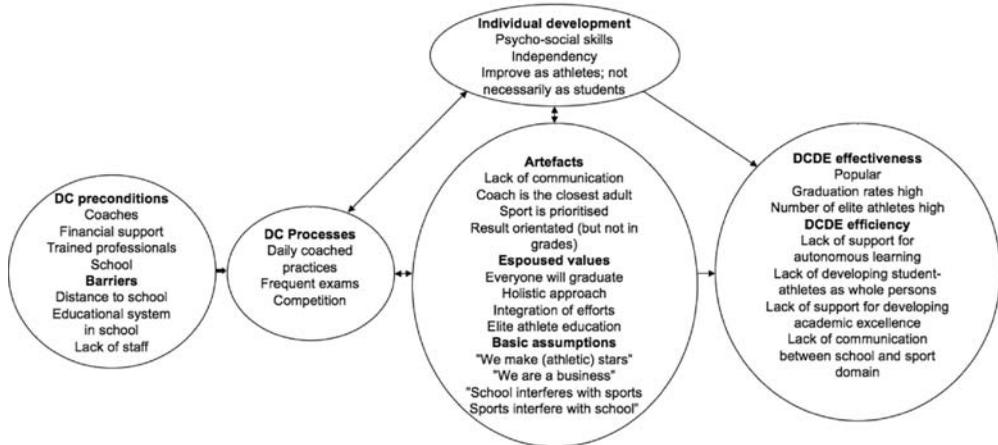


Figure 2. The empirical version of the dual career ESF model that summarises the most important factors of the sports academy that is branding itself as a DCDE.

by the environment's national goal of developing elite athletes, which provided access to substantial funding and made the environment attractive to the most talented youth athletes. A student-athlete discussed the popularity of the environment as follows:

Well, I dunno, maybe that, the advertisement and the experience you get, like, from other people who've gone to this school and then, of course, cus elite athletes (names excluded) sprout out of this place so, they certainly like, get people interested. (Fourth-year student-athlete Tanja, female)

High workload, lack of time, and prioritisation of sports were central themes when identifying barriers in the DC development process. Despite the financial support received by the academy, the participants discussed a number of barriers that they attributed to a lack of funding—for example, teacher Milla (female) stated that they lack teacher training, and both the coaches and the teachers noted that they had high workload due to a lack of personnel. Although, the high school that operated alongside the academy made it possible for student-athletes to complete their education, it was not fully integrated and, therefore, caused challenges for student-athletes. The current school system was straining the student-athletes: all the student-athletes interviewed, except for second-year student-athlete Johanna (female), felt that the workload for the school was high. First-year student-athlete Paavo (male) stated that his daily life consisted mainly of training, school, or homework, a situation that was further compounded by the distance from the dormitories to the school. Furthermore, it seemed that sports facilities were prioritised over school facilities. Despite the outdated teaching equipment (e.g., need for more online content for the courses) as mentioned by the interviewed student counsellor, and the lack of education for teachers (stated by teacher Milla), the academy was investing in new demanding training courses.

Processes

The processes toward success were characterised by four themes: learning the athletic lifestyle, inspiration by the alumni's achievements, frequent testing, and high competition. First, the environment was characterised by learning the athletic lifestyle. Training

schedules showed that instructed practice took place once per day on average, and the interviews revealed that further athletic development was supported by coaches or relative experts who offered sport-specific courses (including topics such as training theory, well-being, nutrition). Second, role models and inspiring narratives were related to the success of current elite athletes, as stated by third-year student-athlete Johanna (female): “individuals want to come here because successful elite athletes have been here, and you can see your own potential to reach the same level in sports.” Third, the school’s modus operandi appeared to be frequent testing, which may be due to the teachers having to arrange compensatory exams for student-athletes who miss the exam weeks. A teacher described the process as follows:

They had some camps during the exam week, well of course, that was so much work to us teachers then that because they missed five or four exams and there are only two retake dates, so then we had to try to piece together a schedule to get them to take the tests, like someone wanted to take theirs before the camp, someone wanted to take it afterwards, someone in the retake and then we were there like, making tests all the time. (Teacher Emmi, female)

Fourth, the environment was characterised by intense competition. First-year student-athlete Anniina (female) revealed that lack of success was mentally taxing for some time after a race, and third-year student-athlete Johanna described the atmosphere the following way: “here, it is a constant competition, and every day you see how fast your opponents are.” Student-athletes Viljami and Johanna stated they had moved out of the dormitories because they needed a place that was less engaged in matters related to sports.

Organisational culture

The key finding regarding the organisational culture of the environment was its incoherence as a DCDE across the different cultural levels observed (artifacts, espoused values, and basic assumptions). The themes related to espoused values included creating a balance between the student-athletes’ sport and academic development, integration of efforts, a holistic approach, an everyone-will-graduate attitude, and an everyone-can-become-elite athlete attitude. The gatekeepers and coaches stated that they had chosen to follow the current DC recommendations. They highlighted that coaches and teachers cooperate and support student-athletes to offer a suitable environment for combining sports and school, and that the school and the dormitory attendant help the students with their private life holistically. Furthermore, the production of elite athletes and the high graduation rate in the environment were highlighted as the primary goals by the gatekeepers and the coaches.

Observations revealed that the artifacts contradicted the espoused values. The artifacts of the environment included the separation of school and sports, the close proximity of the coach, the valuation of sports over education, and a focus on results. Clear tensions between the coaches and the teachers was discovered, specifically in the meeting where the authors presented the findings of the study. The dormitory attendant did provide (private life) support for student-athletes; however, the support was related to practical issues (e.g., room inspections to ensure cleanliness and taking student-athletes to doctor if needed) and not to emotional issues (e.g., the student-athletes did not mention the dormitory mother as a key person for supporting DC). The role of the coaches as the closest persons was visible. Regardless of whether student-athletes needed support in sports, school, or private life-related matters, they turned to their

coaches, who typically felt obligated to help because there was no one else out there for the student-athletes, which increased the workload of the coaches or forced them to limit the amount of support they provided. The formal events arranged in the environment showed that sports were valued over education. For example, the school's websites revealed that the school had an annual celebration day, but most of the award categories were related to success in sports. Additionally, the result orientation was visible in a way that only the student-athletes who had achieved success either in national (e.g., Finnish championships) or international (e.g., junior world championships) competitions would receive recognition on the academy's website and on social media.

Themes like "we are a business", "we make (athletic) stars", "the school interferes with the sports and the sports interfere with the school" inferred by the researchers helped to understand the basic assumptions and the discrepancy between the cultural levels of the espoused values and artifacts. Below, we will explore each theme in detail.

We are a business

The sports academy was dependent on student-athletes enrolment as described by a coach: "the funding is based on the number of the athletes ... We need to get athletes here to safeguard our own occupation." The coach further stated that the parents are a key factor in achieving this: "Parents will decide whether the youth will apply here, so we need to convince the parents that they are taken good care of." However, the student-athletes attested that they did not apply to the academy for educational achievements, as described by a fourth-year student-athlete Tanja:

Well, it is a bit, that because everything here revolves so much around sports that, of course, school's probably the sort of thing that should counterbalance the scale, but then I've personally felt that I've come here to do sports, so then, as a result, you do everything on sports' terms, even school.

Athletic success was used to promote the environment; the special national task of training elite athletes was advertised on the environment's media accounts as and alumni who had succeeded at the elite level were used to market the environment. The head of the academy explained the mission of the environment as follows:

our mission, our core mission, of course, is to arrange the best possible sports coaching and matters related to that, but because we're very much aware that it's very holistic, then other matters have to be in order as well, flexibility and understanding in school and, also that we arrange for meals here, living arrangement and everything so that, when our mission is, after all, to nurture as high-level athletes as possible and, as far as top-notch, elite athletes, so then it's not too much, that we don't make too many compromises regarding ...

We make stars

The basic assumptions of "we make stars" created a sport-focused culture, and the student-athletes were more committed to athletic development than to educational development. The most talented student-athletes were not either encouraged to continue on a DC pathway after graduation, as revealed by coach Mika's (male) statement:

[Yes,] I do think that if an athlete is getting close to the level of a national team so that they'd be able to build up the resources and throw themselves into that like, after sports high school, the career of a professional athlete, so that would, that'd be important.

Academic success and future educational pursuits did not seem to have any major significance in the environment in general as discussed by student-athletes and teachers. This was visible in the way that the overlapping demands and expectations between sports and school led to student-athletes occasionally neglecting school-related tasks (e.g., skipping or being late, not submitting assignments). A first-year student-athlete Anniina described the attitudes of coaches and peers in the following way:

Well I dunno really because, somehow like. Of course it's completely possible to reach goals fairly well in school, but it maybe depends quite a lot on you yourself because, everyone's sort of like, everyone sort of thinks that sports first and then if there's time, then school, so then, it's maybe a bit ...

Moreover, Teacher Emmi described the attitudes of the student-athletes the following way: "even in third-year they think they can become world champions although external facts would show something else, and they sacrifice so much for sports". While student-athletes adopted the idea of sport being the most important element in life, this narrowed their possibilities for private-life activities and to explore life in general.

The school interferes with the sports and the sports interfere with the school

Mostly, DC was understood to be a flexible education plan and a plan B after ending one's athletic career or if the athletic career did not work out. The student-athletes and coaches seemed to think that school interferes with sports and is a hindrance to reaching the elite level. A third-year student-athlete Viljami gave the following example:

I was sick before and during the final examination ... I was just focusing on getting better again and wanted to be healthy to be able to train again. I did not study much since my thoughts were on the upcoming season.

Coaches were supposed to have regular meetings with the teachers; however, as stated by the teachers, not all coaches attended the meetings. The school's responsibility was to be flexible and to work around sports; teachers had adopted the idea that sports come first and arranged for additional examinations and assignments if a student-athlete had missed classes due to sports. However, at the same time, some of the teaching staff suggested that the sports interfered with the school because student-athletes lacked the time and the travelling disrupted the rhythm of the studies. Teacher Milla described the situation as follows:

Of course, if you think about athletes specifically, then, to them this like, this educational system supports their activities, it supports it in many ways because athletes have their own curriculum and then, of course, even their daily schedule, when practice is held and everything is like, for the athletes like the best possible options are chosen for them, but then, on the other hand, because sports take up quite a big portion so, where actual studying and teaching is squeezed in so that, I don't know. I think that that's not being done in the best possible way at the moment.

Environment effectiveness and efficiency

The sports academy measured its success in the number of student-athletes, the number of elite athletes, and the number of students who graduate. The sports academy did not follow up on educational pathway post graduation. Additional

documents showed that the student-athletes have won several international championship medals and represent the national team at junior and senior levels. Considering that the school's success is measured in terms of graduations and that there were no dropouts, (although 11 student-athletes had transferred to a different school), the environment is successful and effective. From the standpoint of the academy not focussing on academic achievements beyond student-athletes graduating and that most student-athletes are able to graduate despite investing a minimum amount of time and energy into their studies, the academy is efficient in some criteria of efficiency. Additionally, the sports academy made the most out of their limited resources in terms of staff. However, when evaluating efficiency as a DCDE (i.e., the communication between stakeholders, the policies and procedures to help resolve problems experienced in the DC), the sports academy is not efficient.

The themes related to DCDE efficiency included lack of support for autonomous learning, lack of developing student-athletes as whole persons, lack of support for developing academic competencies, and lack of communication between school and sport domain. Observations showed that even in sports, the student-athletes were not encouraged to learn but were given direct instructions. The school was quite flexible in terms of allowing student-athletes to study at their own pace; however, some student-athletes felt the demands were too high and that training camps and competition absences led to a higher workload compared to attending class. The sports academy was also unable to help resolve the challenges (e.g., fatigue, role strain) experienced in the DC nor were they able to support student-athletes' individual development. For example, the student-athletes expressed that they did not receive enough everyday-life support, and second-year student-athlete Paavo specifically noted that during the first year, he had to cope with the majority of the challenges by himself. It was evident that student-athletes were mostly viewed as athletes and that the focus was on athletic development, which, together with the lack of time and a high workload, resulted in a barrier against pursuing academic excellence and developing as whole persons. It was also very clear that most of the actors in the environment had a lot of responsibilities and roles, and not enough tools to cope with all the demands, which was further affected by the miscommunication. Although many of the teachers were former student-athletes themselves, coach Juuso (male) explained the lack of understanding of DC as follows:

Well, probably like, with the coaches and the principal and people like that, it's actually, of course we don't have that many shared activities with the teaching side and with that, so maybe not all teachers live the life of an athlete in that because they don't know what it is, they've never been in the scene themselves, and they might not even be interested in it at all, it depends so much on the teacher there that how it is, how they see sports high schools from the point of view of an athlete so ... so I mean, without a doubt, they appreciate it, but the understanding of combining sports and studies certainly isn't completely on the same level.

Discussion

In this study, we explored whether and how a Finnish sports academy had transformed from an ATDE into a DCDE, what the academy's success factors and organisational

culture were, and how DC development was carried out in the academy. The main finding was that the basic assumptions contradicted with the recent recommendations on DC (Stambulova & Wylleman, 2019) and that the sports academy could be identified as an ATDE, lacking some of the essential features of a successful DCDE. Comparing the features of the Finnish sports to the features of Henriksen et al.'s (2020) study of what a successful DCDE is, we can see several differences. First, the environment did not have a DC support team, and the school and sport domains lacked communication and coordination. Second, role models and inspiring narratives were limited to the athletic achievements of the alumni. Third, the organisational culture was incoherent, and the understanding of DC differed between the domains, although all the actors had adopted the sports-come-first ideology. As the integration of efforts, the understanding of DC, and the support for student-athletes influence the outcome of DC programmes (Knight et al., 2018; Stambulova et al., 2015), the environment was successful and effective, but not efficient as a DCDE.

Since the espoused values stated by the gatekeepers contradicted the basic assumptions, the present study of the sports academy complements the studies on the rhetorical support of DC and the instrumental role of the education in the sporting environments by Saarinen et al. (2020) and Thomsen and Nørgaard (2018). According to the Schein (1990), culture is taught to new members by the leading figures and role models. Although the persons' background affects their DC mindset, as shown in this study, student-athletes, coaches and teachers had adopted the basic assumptions of the environment. Furthermore, in the sports domain, the aim to produce elite athletes may increase the pressure for coaches to give direct instructions and target expert services to the athletically most successful student-athletes, while in the school domain, the aim to have as many graduating students as possible may increase the pressure to arrange tests in the school to pass the classes rather than to support autonomous learning. Moreover, although coaches stated that they support DC, they may not have the tools or the training to understand how it could or should be done efficiently, which was further impeded by the miscommunication between coaches and teachers. This study supports the idea that not only the gatekeepers but also the coaches, teachers, and other actors would benefit from receiving training in the benefits of DC, in supporting DC, and in integrating efforts to be able to optimise development environments.

Küttel et al. (2018) have noted that values, understanding, and beliefs of DC might be influenced by the macro-level culture created by sports federations, or societal expectations. At the higher policy level, the Finnish Olympic Committee (2020), which provides education and support to the environment, has a top-down influence on the sports academy. They have stated that they support DC introducing three different DC pathways: (a) sports as an occupation; (b) combining sports and education; and (c) combining sports and another job. As the actions in the environment were mostly related to providing support to athletic development and the organisational culture of the environment emphasized sports being the core, the coaches and student-athletes adopted the "sports-as-an-occupation" ideology. However, according to Kalenius (2014), to find employment in Finland, one is typically required to possess a profession or a master's degree. This would indicate that to prepare for life after a sports career, one needs to have tertiary education. Taking into account a recent shift in the educational policy in Finland that emphasizes high school grades and course selections in tertiary education

admission (Opintopolku, 2020), the student-athletes in this environment may face challenges in the future (Korhonen et al., 2020).

Our findings are in line with previous DC studies that found that, when facing challenges in DC, student-athletes will prioritise sports (Saarinen et al., 2020; Stambulova et al., 2015). Furthermore, when the student-athletes in this study faced challenges in the sports domain, they reported a decrease in motivation toward the school. While adolescents' essential developmental tasks are to develop an identity and to explore future possibilities (Nurmi, 1991), the student-athletes in this environment appear to be vulnerable to an athletic identity foreclosure (Brewer & Petitpas, 2017). To optimise support for the adolescent student-athletes in the academy, as scholars have advocated, the academy should focus on the whole person approach: on fostering a culture that promotes continuing education (Knight et al., 2018), and on providing resources for the student-athletes to explore life and improve their well-being (Ryba et al., 2016; Stambulova & Wylleman, 2019). It would be important for DCDEs to actually have a code of conduct and ethical guidelines regarding the student-athletes' next phase in life (Stambulova & Wylleman, 2019) rather than just fulfilling the minimum standard of higher policy. Moreover, besides the code of conduct, open discussions about the meaning and value of this code, how willing people are to commit to it, and how it can inform their work, is needed.

While looking at the changes the sports academy implemented in response to the DC policy, the academy had hired new experts and was planning to arrange tertiary-level education on their premises in cooperation with universities. However, it was evident that such plans were mostly related to structural changes, not to attitudes or beliefs. As the academy had come to exist before the DC guidelines caught on, the gatekeepers may have felt pressure to brand themselves as a DCDE. It can also be speculated that as the environment has a history of being a successful ATDE, the stakeholders might not see the need for changes. Moreover, while acknowledging that bottom-up processes affect the broader culture, the environment delivers the message that it is functioning well in terms of reaching its goals that might affect the evaluation process of the higher policy actors. In this sense, the national policies also require more profound means of evaluation to assess whether the environment fulfils the criteria of a DCDE and to broaden the understanding of what a DCDE is—that it is not just a system that combines sports and education, but rather a system that provides student-athletes with resources and competencies to combine different domains of life.

In conclusion, the findings presented in this case study suggest that the Finnish sports academy had adapted to the recommendations to provide for athletes' sustainable routes for athletes' to reach the elite level by integrating a DC culture rhetorically. However, we identified the Finnish sports academy as an ATDE rather than a DCDE, and the results indicated an incoherent organisational culture. Finally, the results showed that the transformation from ATDE to DCDE requires changes in the organisational culture of the environment in order to function. The findings not only apply to this specific environment, but can be applied broadly to other ATDEs implementing DC practices. Considering that DC provides the resources for student-athletes to develop a balanced life and the prerequisites to attain academic/vocational dreams, our findings suggest that the basic assumptions of the gatekeepers, the integration of the efforts between the different domains, the education of the stakeholders, and the development of a support system in the environment are crucial factors to achieve the transformation from ATDE to DCDE.

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