



A Foucauldian Analysis on Discourse in Primary School Physical Education Classes in Singapore

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

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ABSTRACT

This study aims to investigate the discourse in physical education (PE) classes among primary school students in Singapore and reveal the distinctive governing epistemological structure. Eight primary school students were interviewed, and an archaeological analysis based on Foucault's thoughts and works was employed. The findings of this study provided a deeper understanding of PE discourse and offered a unique perspective on the conditions for such discourse to happen. A Foucauldian approach is thus a useful tool for policymakers when designing the PE curriculum and syllabus.

KEYWORDS

physical education, primary school, Foucault, archaeological analysis, Singapore

Introduction

Physical education (PE) in Singapore has gone through significant changes over the past few decades (McNeill, Lim, Wang, Tan, & MacPhail, 2009). In the 1980s and 1990s, there was an emphasis on physical fitness and motor skills development in Singapore schools (Thrope, 2003). In the late 1990s, a significant change took place with the introduction of the games-centred-approach (GCA). This approach was reinforced when the Singaporean government subsequently recognised the importance of PE in developing qualities beyond physical fitness such as innovativeness and creativity (McNeill & Fry, 2010). This has encouraged research in GCA in the Southeast Asia region (Harvey & Jarrett, 2014). A systematic review on GCA in PE has shown that there are positive outcomes on students such as increased declarative knowledge, better support for game performance, and higher students' perceived competence and enjoyment (Miller, 2014).

More recently, the Ministry of Education (MOE) in Singapore announced a move towards holistic assessment for students (PERI, 2009). It recognised that the strengths of a student might lie beyond academic aspects and the critical role of PE in developing essential life skills (PERI, 2009). Furthermore, in order to prepare students for the fast-changing environment fuelled by globalisation and the rapid advancement of technology, MOE has identified the framework for 21 Century Competencies (21cc) that is in line with a holistic education. Here, PE is again recognized as playing one of the central roles in cultivating the 21cc (PAM Research Committee, 2016).

As PE in Singapore has evolved over the years, many research studies have focused on areas such as improving PE pedagogy strategies (e.g. Chow & Atencio, 2014; Lee, Chow, Komar, Tan & Button, 2014) and describing



motivational profiles in predicting physical activity (e.g., Sproule, Wang, Morgan, McNeill & McMorris, 2007; Wang, Chatzisarantis, Spray & Biddle, 2002; Wang, Liu Chatzisarantis & Lim, 2010). Students' experiences in PE classes have not received much attention from researchers. To the best of the authors' knowledge, only Fry and Tan (2005) reported that students regard PE lessons as their own playtime. There is certainly a need to examine students' experiences of PE lessons given that Fry and Tan's (2005) study is dated and the PE curriculum in Singapore has undergone major changes in 2006 (MOE, 2005). Students' experiences are important as positive experiences would translate to higher levels of engagement (Gao, 2008; Ning, Gao & Lodewyk, 2012). In this sense, discourse analysis may offer an alternative perspective on students' experiences of PE in Singapore.

Discourse analysis, in brief, can be understood as the analysis of texts, such as books, articles, official policy papers, interviews, and films and posters (Hall & Chambers, 2012). The process of discourse analysis generally involves description, interpretation, and explanation, with a critique of discourses included in some analysis (Cruickshank, 2012). Discourse analysis serves not just to highlight the language used in the text, but also the role of the language in social practices (Hall & Chambers, 2012). In discourse analysis, it is assumed that people construct reality based on language. In this case, the language in these texts is not neutral. Language is not just a means of communication. It is used to express the view and position of the speaker when describing the world or phenomenon, and as a tool to persuade the reader to take the speaker's position (Hall & Chambers, 2012). More often than not, readers take for granted what the texts represent on the surface; discourses remain most powerful when it is *invisible*. By scrutinising the texts and the way the language is used, the deconstructions of text may surface some 'invisible' points, revealing the underlying intention of the texts, or provide alternative views (Hall & Chambers, 2012). In other words, discourse analysis does not aim to determine or question the 'truth' of the matter but to reveal the relationships between the objects involved and provide a clearer picture of how things are (Cruickshank, 2012). Discourse analysis is used in many studies across various fields, although the term 'discourse' is defined differently (Jansen, 2008). Among the various discourse analyses, Foucault's theoretical framework is probably one of the most commonly used (Jansen, 2008).

Foucault (1972) describes that "discourse is secretly based on an 'already-said; and that this 'already-said' is not merely a phrase that has already been spoken, or a text that has already been written, but a 'never-said', an incorporeal discourse, a voice as silent as a breath, a writing that is merely the hollow of its own mark (p. 25)." In *Archaeology of Knowledge* (Foucault, 1972) which is considered one of Foucault's most influential work, he proposed discourse as the "verbal performances... which was produced... by groups of signs... in so far as they are statements, that is, in so far as they can be assigned particular modalities of existence" (Foucault, 1972, p. 107). Statements can be in "various units (these may sometimes be sentences, sometimes propositions... sometimes made up of fragments of sentences, series of tables or signs, a set of propositions or equivalent formation" (p. 106), and the "dispersion and redistribution" (p. 107) of statements is known as discursive formulation.

Foucault avoids interpretation of deeper meaning beyond the text. Statements are essentially the function of a series of signs; thus it is not about "what they are hiding, what they were 'really' saying...on the contrary, it questions them about their mode of existence, what it means to them to have come into existence" (p. 109). Foucault (1972) posits that discourse is far from simple and monotonous. The 'truth' of the discourse and the historical aspect of the discourse, both consist unique system of statements (known as archive), produce the complicated scene for the discourse as the archives are "never completed" (Foucault, 1972, p. 130) and "cannot be described in totality" (p. 131). The search for these archives is thus known as archaeology (Foucault, 1972).

To date, several studies have conducted discourse analysis in the domain of PE. For example, systematic functional and semantic theories were used to examine the role of language used in single-sex classroom and co-education settings in PE and its impact on boys and girls (Wright, 1997). In a later study, Wright (2000) adopted Gore's coding analysis and systematic analysis on linguistics to examine the relationships of physical



bodies in PE. Thrope (2003) examined how politics had influenced the PE system in Australia by using crisis discourse analysis. Finally, discourse analysis was used to investigate the PE syllabus in Australia (Rossi, Tinning, McCuaig, Sirna, & Hunter, 2003) and Scotland (McEvilly, Verheul, Atencio, & Jess, 2014).

Following Foucault, the PE class in Singapore cannot be defined as it is. It is a discourse that is constituted by surrounding people of that age (Chung, 2009). It is critical because it does not illustrate past facts from a present perspective but rather describe them as a present perspective (Lee, 2003). Sim (1990) defined épistémè as describing the sub-elements which underpin the epistemic prospect and cultural structure in an era. Épistémè is a hidden order that supports discourse and a stratum under the knowledge (Sim, 1990).

To study épistémè, a new research approach is required which is different from the existing historical method. Foucault (1972) used the terminology, archaeology to explain what is happening for the moment in addition to the conditions of discourse that existed then. It sets skills, rules, and systems that comprise the knowledge in a specific environment at a particular time as evidence of social and discursive practice. Sheridan (1997) concurred that "discourse is not objected: rather, discourse constitutes them" (p.98). If you look into a structure of discourse, you would be able to establish how an educational policy implemented in a country has been developed (Chung, 2013). LeMoine (2006) also emphasised that "Foucault (1980, 1985; as cited in Krizman, 1990; Ransom, 1997) acknowledged the existence of unrecognised acts or forms of power within institutional contexts such as government and education." In other words, it implies that discourse amongst students is interconnected with the educational policy in Singapore.

As aforementioned, many research studies in PE in Singapore is focused on pedagogy (Koh, Camiré, Lim, & Soon, 2016; Koh, Ong, & Camiré, 2014; McNeil & Fry, 2010; McNeil et al., 2009). Recently, an attempt is made to review the primary school PE class from a sociological perspective (Chung, 2012). The purpose of this study is to make further contributions in this area by investigating the discourse on PE that is formed by Singapore's primary school students through Foucault's archaeological analysis. The present study seeks to address the following research questions:

- 1. What is the discourse of PE classes as spoken by primary school students?
- 2. How is the discourse of PE classes formed by primary school students in Singapore?

Methods

Participants

Eight primary school students were recruited from two primary schools in Singapore as research participants in this study using purposive sampling (Patton, 2002). The students recruited were from the upper primary (i.e., Primary 5 and Primary 6, age 11-12), with one male and one female student recruited for each study year. The respondents thus have at least four years (Primary 1 to Primary 4) experience of PE lessons in Singapore primary schools. Approval for the research was obtained from MOE and the school principals. The respondents were selected by their PE teachers. Informed consent to participate in the study were obtained from students' parents or guardians, as well as from the students.

Procedure

Research participants were required to participate in two interviews. In the first interview, the students were asked to share their experiences when participating in PE lessons. The interviewer would probe the students for details regarding the activities (e.g., Can you share with me the activities that you have participated in your PE classes?), the people (e.g., Do you think other students are enjoying the activity? What does the PE teacher do before/during/after the class?), and the setting (e.g., Where do your PE teachers conduct their lesson? Where did you get the equipment from?).



This first interview took approximately 45 minutes and was recorded using a digital voice recorder. The interview was later transcribed in verbatim by the interviewer. Names of students were withheld to maintain confidentiality; a code (e.g., Student A, Student B) was used to refer to each student.

Additional questions were formulated for the second interview to make clarifications on the responses with the students and on topics that did not elicit sufficient detail. The second interview took place two weeks after the first interview. The students were asked to respond to the additional questions. They were also given the opportunity to review and confirm the final transcript. This process took approximately 20 minutes and was recorded via a digital recorder. The interviewer again transcribed the interview for further analysis.

Data analysis

The data analysis was done in two stages. The first stage of data analysis was to describe the discourse of PE. The author consolidated the interview data to provide a view of the PE discourse. All the authors went through the data independently and separately to group common concepts into categories. The categories were compared to create themes (Maykut & Morehouse, 1994) based on two broad themes guided by the interview questions: What was the perception of PE? What do you think and feel towards PE?

The second stage of data analysis was to reveal the distinctive epistemological structure that governs discourse of PE classes formed within primary school students in Singapore. When discourse emerged and surfaced, many causes are interlinked for it to happen. According to Foucault (1972), the main focus of question does not fall on the discourse itself; rather, how the discourse is formed;

"these pre-existing forms of continuity...must be suspense...we must show that they do not come about of themselves, but are always the results of construction the rules of which must be known, and the justifications of which must be scrutinized" (p. 25).

In other words, the authentication of the formation of the PE discourse done in the first stage of analysis would not be the centre of the question; the lesser-known relationships between the objects should be scrutinized to provide a better understanding on the structure of the discourse formed. Thus, the second stage of analysis focused on identifying the relationship between objects of the discourse of PE based on the archaeological analysis. According to Foucault (1972), the archaeological analysis is expressed through various distinct elements such as the status of individuals, the institutional sites as location and space, and the situations by the position of individuals.

Results

Discourse of PE classes spoken by primary school students

The data collected can be broadly divided into two sections: perception of PE, and thoughts and feelings towards PE. The first section was derived from students' perception of PE, in which students shared what they had experienced in their PE class over three time periods (i.e. during the first two years of school in P1 and P2, the next 2 years in P3 and P4 and finally in the final years of primary school in P5 and P6). The second section focused on students' thoughts and feeling towards PE classes. Students shared their thoughts and feelings about PE. Students also deliberated on the purpose and benefits of participating in PE classes.

Perception of PE classes

Health and fitness. One of the predominant reasons to participate in the PE class cited by the students was to be healthy and fit. Students believed that it was essential to be healthy and fit, which their PE teachers and their family members reportedly advocated. As such, they believed that they could stay healthy and fit by engaging in physical activity and sports during PE classes. More importantly, Student D pointed out that although it was



important to exercise to be fit and healthy, it might be a challenge due to the heavy load of schoolwork. In this case, PE classes offered an excellent opportunity to exercise amidst the busy schedule. This may be the reason that students regard PE classes highly.

"For me, it's important because erm.. for my age right now it's important, it keeps us fit. Plus, I don't really have time to exercise. So when having PE lessons every week, it actually makes us feel more energetic and fit." – Student D

Stress reduction. Related to the issue of health and fitness, students also cited PE class as an opportunity to reduce their perceived level of stress. All of the students agreed that the primary source of their stress was from schoolwork, although a few students noted that family issues may also contribute to stress. Students regarded PE class as a form of relief from the stress. They are able to engage in activities with their friends and that would lift their mood. In addition, having a PE class in between other academic classes can help students in their learning. The PE class provides a break for students. Consequently, they are able to focus better on their learning when they return to their classes after a PE class.

"I feel like my stress had already gone. And very fun during the PE class and forget the stress." – Student A

Values and skill learning. Students believe that besides being fun, PE classes allow them to learn new skills which will be beneficial for them in future. For example, Student C noted that what he learnt in earlier PE classes allowed him to do better in sports.

Student A believed that she was able to share her knowledge of games she learnt from her PE class with her siblings. Students generally agreed that their PE teacher was the primary source for learning skills and game concepts. None of the students had any other formal instructions in sports or games outside of their PE class although a few students mentioned that they had family members who would teach them some sports and games. Interestingly, some students noted that they learned from their friends who are more proficient in the sport.

"And sometimes it's our friends because when we see our friends doing it right, we will sometimes ask them." – Student C

A few of the students also managed to identify the values that they learnt through PE classes. For example, students learned about the spirit of sportsmanship through the various competitions during PE classes or friendly matches during the school sports day. Other values that students learnt and were able to provide examples in their responses include responsibility, self-confidence and teamwork.

"If they have won I will actually erm.. congrats them because it actually doesn't matter if you win or lose. It's just a friendly match. So if sometimes my friends erm.. are too mad because their team lose, then I will actually try to cheer them up." – Student D

Bonding. Students had abundant opportunities to interact with their friends during a PE class. It was not unexpected that students responded that they participated in PE classes to enjoy the interaction and bonding with their friends. Furthermore, interactions between friends were also important for students to learn values like teamwork and being respectful.

Thoughts and feelings towards PE class

Fun and enjoyable. Students, in general, agreed that the PE classes they had were fun and enjoyable. Students conceded that the activities in the PE class in earlier years were relatively more straightforward than those in later years. However, they did not feel that those activities were less fun.



"P1/P2 more simple, but then very fun also" – Student G

There were several reasons for students to perceive PE classes as fun and enjoyable. The most commonly cited reason was that the activities in PE classes were inherently fun and enjoyable.

"I think it's fun because I love sports and I love to play soccer" - Student D

In addition, students enjoyed interacting with friends during the PE class. Most activities during the PE class involved some form of interaction. For example, students were grouped in pairs or teams for practising of game skills or matches. These interactions with their friends in fun activities contributed to the positive impression of PE classes.

Excitement. Students expressed a sense of anticipated excitement for PE classes. For example, Student E would become excited when the PE teacher was going to conduct a PE class in his favourite sport.

"Like it is my hobby to play basketball, and then the teacher is conducting the basketball lesson, I'll be very excited." – Student E

In particular, when students enjoy their PE classes, they will be more likely to be excited about future PE classes.

"I felt excited when I'm having PE class. Because during PE class erm.. is very fun. Like sometimes when something (the class was) very boring, then when teacher says (it) is PE time, then everyone will not feel boring, and then become excited." – Student E

While students have varied preferences for activities during their PE classes, they were all considered to be fun and enjoyable.

Challenging. Just like any other learning process, it is reasonable to expect that some students may experience challenging moments. Gymnastics was most frequently cited as an activity that students faced challenges when learning the movements. In some instances, students were able to overcome the challenge with the help of their friends.

Student H: We learn how to really jump high, and I remember I tried to jump high, but I

failed because it's hard for me and my friends can do it so well.

Interviewer: So, what did you do after that? And what happened next?

Student H: I asked my friend how they jump high, and I learn from them, and now I can

jump high.

Despite being challenging, students often found a sense of confidence and enjoyment when they managed to overcome the challenge.

Interviewer: What activities did you do during the P5 camp?

Student B: We need to hold the string (rope) and come down.

Interviewer: Hold the string (rope) to come down?

Student B: Yeah. Like here have a wall, then we at there, then we need to use a string

(rope) to slowly go down to the floor (ground).

Interviewer: Were you afraid? Student B: Yes. Very scared!

Interviewer: But why would you still do it when you were scared?

Student B: Because I want to try... I want to overcome my fears... I feel very difficult, like

I don't want to do it already when I'm at the middle.

Interviewer: When you finally did it, how did you feel?
Student B: Yes! I want. I say I want to do one more time.

Interviewer: Do you feel more confident after going through this process?



Student B: Yes!

The positive feelings associated with overcoming the challenges, as well as the opportunities to bond with friends in moments of need, contributed to the positive experiences during a PE class. This, in turn, further fuelled the anticipation of excitement for the student to participate in future PE classes.

Distinctive epistemological structure that governs discourse of PE classes

Responses from students provided a clear sense of the discourse of PE classes. The next step is to examine beneath the surface to understand how such discourse is formed. Based on the responses given by the students, we identified PE experiences, emotions towards PE class, and the purpose of PE class as the objects for the PE discourse. Based on Foucault's archaeological discourse analysis, in order to understand the links between these objects, we need to identify the modalities of enunciation, namely the subject who speaks the discourse, the institutional sites, and the position of the subject. Based on our findings, we identified the primary school students as the subject, the primary school as the institutional site, and primary school students as a future generation as the position of the subject. In the following section, we will examine these enunciative modalities in closer detail.

Primary school students as the speaker.

Primary school students who are qualified to speak. The subject of the discourse is a concern with "who is qualified to do so?" (Foucault, 1972, p. 50). The present study explores the PE discourse formed within the primary school students in Singapore. Naturally, the subject who is qualified to speak the discourse in the present study are the primary school students. Another factor that supported the status of the subject is that primary school education is the beginning of formal education in Singapore. The Singapore government implemented compulsory education in 2003 to ensure that citizens of Singapore are equipped with basic knowledge and skills to be a productive member of society, as well as to develop a national identity (MOE, 2017a).

According to the Compulsory Education Act (Cap 51), all Singaporeans between 6 to 15 years old are required to attend a national primary school (MOE, 2017a). In other words, though the Ministry of Education provides pre-school education, it is not compulsory for parents to enrol their child or children into pre-schools. Consequently, the primary school may be the first formal education institution for all Singaporean children. In terms of PE, it is evident that there are differences between the curriculum in pre-school and primary school education. PE is incorporated as a stand-alone subject in the primary school education curriculum, encompassing the learning of physical activities, exercises, and sports. In contrast, pre-school PE focuses on developing motor skills of students through various physical activities. Taken together, primary school students are therefore in the position to be qualified to speak on the discourse of PE as they are the embodiment of early formal and systematic learning of physical literacy through PE in Singapore.

Primary school students who have the right and authority to speak. When determining the subject of the discourse, it is essential to recognize the 'right' and 'authority' to speak. "It also involves a system of differentiation and relations...with other individuals or other groups that also possess their status" (Foucault, 1972, p. 50). In the present study, the primary school students had the *right* and *authority* to speak on the PE discourse.

Older students, for example, those who are currently studying in secondary schools, have also experienced primary education PE classes. However, as they are also exposed to secondary education PE, which is considerably different from the primary education PE in terms of the depth of studies, this exposure may produce a different discourse of PE. Thus, in the present study, the primary school students have the 'right' and 'authority' to speak as compared to students in other demographic groups.



Primary school students who have specific criteria to speak. According to Foucault (1972), when identifying the subject, we also need to question what criteria the subject possess that makes his response valid. In the present study, P5 and P6 students were selected instead of P1 and P2 students as the former have gone through at least four years of PE in primary school as compared to the latter who have just started on their primary school education. Differences in years of PE classes may produce a different discourse of PE, even though both groups are within the same primary education system.

For example, the PE syllabus for the early years in a primary school (i.e., P1 and P2) emphasise on fundamental skills development. 50% of the entire year is focused on fundamental movements and 40% on educational gymnastics. Interviewing students from P1 and P2 may only be able to unearth the discourse for only part of primary school PE. In comparison, students from P5 and P6 would have experience at least 4 to 5 years of PE classes within the primary school. They would have advanced from an emphasis on fundamental skills development to the introduction of sports (e.g., track and field) and games concepts (e.g., basketball, volleyball, captain's ball, et cetera). This is because sports and games constitute 40% to 50% of the entire year for PE from P3 to P6. The discourse of PE will be different for students in P5 and P6 as compared to students in P1 and P2. Such differences in years of experiences give authentication to the P5 and P6 students as the speaker of the PE discourse formed in primary schools in Singapore.

The primary school as the institutional site

Foucault (1972) described institutional sites as the place "from which this discourse derives its legitimate source and point of application" (p. 51). According to former Minister for Education Mr. Heng Swee Keat, "schools are the centre of action in our education" (Heng, 2012). As such, the primary schools are the institutional site where the discourse is formed. Primary schools provide the following support for the PE lesson to take place.

Primary schools provided the infrastructure for PE. Primary schools provide the venue for the PE lessons to take place. Following the recommendation from the PERI (2009) report, the Ministry of Education (MOE) had pushed for the building and upgrading of infrastructure in primary schools in line with the effort to promote holistic education. An indoor sports hall would be built in every school to facilitate PE lessons (MOE, 2006). With the indoor sports hall, PE lessons would not be affected by inclement weather.

Another advantage of having an indoor sports hall is providing more flexibility with respect to the timing of PE lessons. Schools would be able to schedule PE lessons in the late morning or noon. This would not be feasible without an indoor venue due to the risk of overexposure to the sun, which could lead to heatstroke. Besides that, each indoor sports hall consist of "basketball court superimposed with four badminton courts, a volleyball court and a netball court" (MOE, 2006), offering more options to the schools to design and plan the PE lessons.

The flexibility of infrastructure is especially crucial for Singapore schools. Singapore is ranked third in population density in the whole world in 2015 (World Bank, 2017). With limited space, careful planning is necessary. Thus, multipurpose facilities are instrumental in Singapore as it can support the variety of activities specified in the PE syllabus.

Primary schools provided the equipment and teaching material. Other than the infrastructure, the primary schools also played an essential role in providing the necessary equipment and teaching material for the PE lessons. The PE syllabus for Singapore schools includes a variety of activities, games, and sports. For example, equipment such as hula-hoops and tunnels are required to set up an obstacle course to develop fundamental

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movements during P1 and P2. Different types of mats and balancing beams are needed for gymnastics, while the various sports require different sets of equipment.

In addition, most equipment is customised for children in this age group due to their smaller physical size compared to adolescents and adults. The equipment (e.g., badminton racket, floorball sticks, soccer goal post) for primary school students are usually smaller than the ones used in secondary schools.

The primary schools provide autonomy in PE classes. According to the interviews in this study, various activities based on the PE syllabus were reported for the discourse of PE. The PE syllabus was designed and prepared by the Curriculum Planning and Development division within the MOE. The key role of the division was to design and review the national syllabus as well as the assessment for subjects (MOE, 2017b). The PE syllabus was produced in 2005 and implemented in 2006, which featured the continuation of the game-centred-approach (GCA) from the 1999 PE syllabus (MOE, 2005). The 2006 PE syllabus provided a detailed illustration of the scope of the curriculum and a sample year plan that demonstrated the progressively sophisticated curriculum, which suited the developmental level of the children. The curriculum in lower primary is primarily focused on fundamental skills development, progressing to games with an emphasis of both correct execution of movements and clear understanding of the games at the upper primary level. Though the PE lessons in primary schools had to follow the PE syllabus produced by MOE, the syllabus contained an element of autonomy for PE teachers. There is a list of games included in the PE syllabus based on three main categories i.e. territorial, net/wall, and striking and fielding games. PE teachers have the liberty to choose the activities for their lessons. Hence, in this study, P6 students from different schools reported different activities in their PE classes.

To support holistic education and recognise the diverse educational settings in Singapore, MOE had pushed for needs-based resourcing, where more resources were directed to help students with slower progress and school with lower enrolment. In addition, MOE had given autonomy for the school to customise their program to suits the needs of their students, recognizing the importance of diverse talents and holistic education. In terms of supporting the autonomy in running the PE lessons, the MOE had given the schools the power to "vary the design of their sports hall to match their students' needs" (MOE, 2006).

The position of primary school students as the future generation

After identifying the status of the subject, and the institutional site where the PE discourse is formed, the next important step is to understand the position of the speaker. "The positions of the subject are also defined by the situation that it is possible for him to occupy in relation to the various domains or groups of objects" (Foucault, 1972, p. 52). In Singapore context, the Singapore government had been clear about the importance of children as the future generation that would continue to develop the nation, and education plays an important role in shaping the future of the children.

"Education is a long-term endeavour. A child entering Primary One next year will start work around 2030. What must we do right in Education now and in the next 20 years, so that our children will have a bright future and can fulfil their aspirations?" (Heng, 2011).

The Singapore government has been focused on education, making changes and updates to the education system to stay relevant since the 1990s (PERI, 2009). In 2008, PERI committee was set up to review the primary school education system to examine whether it was able to support the diversifying secondary school education, and establishing improvements to further increase the quality of primary school education in Singapore (PERI, 2009). The PERI committee found that the primary education system in Singapore was robust and regarded highly internationally, and provided recommendations to enhance the primary school education system.



Recognising the importance of moving forward ahead of time in a fast-changing environment, MOE introduced the 21st Century Competencies (21CC) framework in 2009.

"Globalisation, changing demographics and technological advancements are some of the key driving forces of the future. Our students will have to be prepared to face these challenges and seize the opportunities brought about by these forces" (MOE, 2015).

With 21CC as a guiding framework, MOE designed the Desired Outcome Education (DOE), listing the ideal attributes that every Singaporean should achieve upon the completion of each stage of their education. Specifically, by the end of primary school education, a student should:

- be able to distinguish right from wrong;
- know their strengths and areas for growth;
- be able to cooperate, share and care for others;
- have a lively curiosity about things;
- be able to think for and express themselves confidently;
- take pride in their work;
- have healthy habits and an awareness of the arts;
- know and love Singapore (MOE, 2015).

PE plays a vital role in developing values that are central to the 21CC and achieving the key outcomes during primary school education. We have identified a few key outcomes from the findings in the present study.

Developing healthy habits. The first step to developing healthy habits is to learn how to do it. In PE, students learn about various physical activities and sports. This will enable them to participate in sports during their leisure time, creating an opportunity for a physically active habit to form. This is indeed the case as a few students noted that PE helped them cultivate the habit of exercising.

Another interesting finding in the present study is that students reported utilizing PE lessons as a mean to reduce stress. The link between exercise and improving psychological health is well-established. For example, a review found that physical activity improved the well-being of children and adolescents facing depression, anxiety, self-esteem, and cognitive functions (Biddle & Asare, 2011). It seems that students in the present study not only benefitted from PE lessons in developing healthy habits to exercise but also utilise PE lessons to improve and maintain their psychological health.

"I enjoy PE class and it actually reduces stress because during P6 life, I am always busy with the study and revision paper. So when during PE, I will try to enjoy it." – Student D

Cultivating lively curiosity. According to self-determination theory (SDT; see Ryan & Deci, 2000), when a person is intrinsically-motivated, there is a sense of innate curiosity to search for "novelty and challenges, to extend and exercise one's capacities, to explore, and to learn" (p.70), with enjoyment being a crucial factor in cultivating intrinsic motivation. Decades of studies had shown that enjoyment predicted intrinsic motivation (e.g., Ryan, Frederick, Lepes, Rubio, & Sheldon, 1997), and in turn, intrinsic motivation leads to exercise participation (e.g., Teixeira, Carraca, Markland, Silva, & Ryan, 2012). It was evident that students in the present study reported a range of positive emotions during PE class, such as having fun, enjoyable and happy. Such positive feelings towards PE has fuelled the continuation of learning in sports and exercise.

"I have learned how to run even faster, and how to throw the ball properly. I think it is fun because I love sports, and I love to play soccer." – Student C

"I think it's (PE) very enjoyable, and then I get to learn new things." - Student G



Knowing individual strengths and areas for growth. Besides learning how to exercise and do sports, another critical aspect of PE is to provide opportunities for the students to face challenges and facilitate their growth by overcoming the challenges. As they learn, they will also start to enjoy the activities when they become proficient at it.

At the same time, it is expected that there will be some activities that students may find challenging, or perform poorly when compared to their peers. Instead of giving up, students reported that they often approach their peers to seek help and advice in order to improve their performance.

"I feel like I want to be the best. Some of my friends are so much better than me, so I keep training harder and try to be the best." – Student C

Discussion

The present study set out to portray Singapore's PE classes formed within the primary school students. Interviews with eight primary school students who were in the upper primary showed that students experienced a wide range of activities throughout the years with increasing level of difficulty and complexity that matched their physical and cognitive developmental phase. Albeit some differences in activities reported by students from different schools, these activities reported were in accordance with the national PE syllabus produced by the Ministry of Education Singapore (MOE). Overall, students reported positive feelings associated with PE lessons they had over the years. Students believed that PE lessons were fun, exciting and enjoyable. Even though students encountered challenges in certain activities or sports, they were able to overcome such challenges with help from their PE teachers and peers. The sense of accomplishment overcoming the challenges had in turn added to the positive feelings towards PE lessons. Students also recognised the importance and purpose of PE. Students believed that improving health and fitness was one of the main purposes of PE as they reported that PE lessons allowed them to exercise and engage in sports.

Interestingly, another main purpose of PE reported by the students was to reduce stress. Students regarded PE lessons as a much-anticipated break from the regular classes. Through participating in various physical activities, students felt relieved from their stress, and this helped them to focus when they returned to their classrooms for their subsequent lessons. In addition, students recognised the importance of PE lessons in learning essential skills, which they believed would help them in developing a healthy lifestyle. Some students were able to identify essential values they learned through PE class, even providing examples depicting what those values mean. Taken together, it seemed that the PE program in Singapore primary schools could be considered as a successful case study in which the PE had achieved its aim, which is to "develop students' motor and games skills and equip them with the knowledge, skills and attitudes to pursue and enjoy a physically active and healthy lifestyle" (MOE, 2005, p. 2). Students were introduced to various physical activities and were equipped with the skills to engage in sports effectively. More importantly, they consistently reported positive emotions towards PE and acknowledged the importance and values in PE. These allow students to have a good foundation in developing an active and healthy lifestyle.

Merely investigating the PE discourse formed within primary school students is not sufficient to understand why the present PE looks like how it looks like today. It is important to reveal the epistemological structure in order to understand how such PE discourse was constituted, or in Foucault's (1972) words, "the law operating behind all these diverse statements, and the place from which they come" (p. 50).

In the archaeological analysis, the primary school students were established as the subject of the PE discourse, with the position of the subject as the future generation, while the primary school was established as the institutional site where the discourse was formed. Systematic and formal PE begins in primary education. Thus, primary school students represented the embodiment of the earliest systematic and formal PE in Singapore. Primary school students who were from the upper primary level were established as the subject as they had



gained enough experience to produce more encompassing PE discourse as compared to students from the lower primary.

For the institutional site, primary schools were given the necessary infrastructure, equipment, and teaching material that were customized to the needs of the schools so that the PE lessons could be carried out effectively in accordance to the PE syllabus set by the MOE.

Lastly, primary students were viewed as the future generation of the nation. The central purpose of education is to produce future generations to continue to move the country forward. With 21CC as the guiding framework and DOE as the direction, students in the present study manifested some key outcomes of the primary education. Systematic learning of sports and exercise through PE had equipped students with the necessary skills and knowledge to stay healthy and fit. The active participation in exercise and sports during PE subsequently instil the belief of the need for regular physical activity to maintain good health. All these had encouraged individuals to develop and maintain healthy habits in their daily life.

The autonomy given through the MOE to schools and teachers had a direct implication on cultivating the curiosity of learning in students. Research (e.g., Ryan & Deci, 2000) had shown that autonomy is one of the main components in developing intrinsic motivation in learning. Besides intrinsic motivation, another critical factor for learning is through overcoming challenges. Facing obstacles provide valuable opportunities for individuals to understand their own strengths and shortcomings, to work on their weaknesses and at the same time learn to utilize their strengths in their effort in overcoming the challenges.

The discoveries and establishment of epistemological structure provided an important understanding of the parties involved in constituting the formation of PE discourse. In the present study, the PE discourse seemed to be in accord with the education direction set by the MOE, where some of the key outcomes for primary education were achieved. It is noteworthy that some students reported learning some core values of the 21CC framework (e.g., respect, responsibility, and resilience) through PE.

Currently, the objectives of PE is largely concerned with physical literacy while the potential of PE in inculcating character and values development had been largely overlooked. There is a large body of research studies that have demonstrated the potential of PE in developing students' character, be it using pedagogy strategies (e.g., Camiré & Trudel, 2010; Giebink & McKenzie, 1985; Gould, Flett, & Lauer, 2012; Romance, Weiss, & Bockoven, 1986) or using PE intervention (e.g., DeBusk & Hellison, 1989; Gibbons, Ebbeck, & Weiss, 1995; Miller, Bredemeier, &Shields, 1997; Wandzilak, Carrol, & Ansorge, 1988). The fact that students in the present study could identify some values learned through PE class lend support to the argument that with more emphasis on character development, PE could achieve much more than just improving students' physical literacy.

Limitations of the research and recommendations for future research

It is imperative to note that the findings in the present study may not be representative of the wider Singapore population; the purpose of qualitative research is not to establish generalizable findings but to present the depth of the issue. It should be noted that the students recruited in the present study were from primary schools located in the western district. Though Singapore is not a large nation, students from different districts may reveal different PE discourse as each school has a certain degree of autonomy in preparing their classes to suit students' need. Another limitation of the present study is the data collected from primary school students were retrospective in nature. It is common to hear from students that they could not fully remember all the activities they had throughout the years, thus affecting the richness of data in presenting the PE discourse.

Following the discovery of the epistemological structure of the PE discourse, future studies could examine the efficacy of PE in character and values development. Experimental studies could be done to investigate the suitable PE structure that would facilitate 21CC values development during PE lessons. The empirical data from



intervention studies could provide valuable insights for the MOE in restructuring the existing PE syllabus, which was last done more than a decade ago.

Conclusion

This study offers a unique look at PE in primary school education in Singapore. By discovering the PE discourse, we could conclude that the PE had achieved a successful status in terms of reaching objectives specified in the syllabus and producing key outcomes in accord to the guiding framework of the education system in Singapore. Establishing the epistemological structure that constitutes the PE discourse via Foucault's archaeological analysis offered a clearer understanding of how different parties would affect the formation of the PE discourse. It is hoped that such discovery will provide valuable perspectives to policymakers in their efforts in redesigning PE in future.

Acknowledgements

This work was supported by a research grant (SUG06/16 CHJ) from the National Institute of Education, Nanyang Technological University, Singapore.

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Received: 23 November 2018; Accepted: 17 April 2019





Practical Role of Philosophy in Sport: Case of Philosophical Consultation

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation

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ABSTRACT

The process of philosophical questioning has the power to form not only our way of thinking, but also the way we live. Both my sporting and academic career have made me think about the importance of asking good questions and undergoing the process of answering them. I decided to create a profession of philosophical consultation in sport which works with athletes and coaches of various ages. Consultants and athletes (clients) engage in a dialogue about important and interesting questions/topics in client's life. This dialogical process is called philosophical consultation. It focuses on critical evaluation and development of client's thinking, self-cognition, and attitudes/worldviews. Philosophical consultation helps athletes and coaches to look for their identity and achieve better self-awareness. It can be argued that consultation offers what Patočka calls the "care of the soul" (epimeleia peri tês psychês) or what Foucault calls the "care of the self" (epimeleia heautou), which are based on Socrates' kind of philosophizing. It helps to achieve ancient ideals of kalokagathia and gnôthi seauton. The potential of using philosophy in sport hasn't been fully discovered. Philosophical consultation is presented as a process of self-cognition and inner development. It has the potential to influence the care for well-being of athletes and

I aim to explore the practical role of philosophy in sport. I will present possible connections between philosophy and sport and the historical predecessors of the concept of philosophical consultancy in sport. As well, we will discuss what philosophical consultancy is, how philosophical consultant works, and finally what are the challenges in bringing philosophical consultation into sport. Methods that are used in this interdisciplinary article are critical textual analysis, description, and interpretation of data.

KEYWORDS

philosophy of sport, philosophical consultation, philosophical practice, dialogue, questioning

Types of relationship between philosophy and sport

There are several types of relationships between philosophy and sport. This text demonstrates the types of relationships that I have been able to identify so far. For example, if we go back to ancient Greece, sport was a popular activity not just among ordinary citizens, but also among the philosophers. According to R.A. Mechikoff (2014, pp. 51-52), H.L. Reid (2007, p. 173), or I. Jirásek (2005, p. 274), philosophers attended the Panhellenic games, some of them even as active participants. Thinkers like Socrates, Plato, and Aristotle



considered physical activities to be an important part of human life. They made them a part of their philosophy of education. These philosophers thought that through moderate sporting practices, athletes acquire certain virtues and in combination with other types of education, they become good citizens of the polis. There are two types of relationship between philosophy and sport here. One is an active or passive interest in sport among the philosophers – this is not typical just for ancient Greece, but also for later authors like Sartre, Derrida, Camus or Heidegger. The other is the notion that sport has a certain formative dimension and helps human beings to develop as good citizens. In this sense, sport is an important part of the philosophy of education.

Another type of relationship between philosophy and sport is the application of philosophical theories (for example from ethics or philosophical anthropology) on sport (example: Reid, 2012). We may, for instance, say that according to this philosopher or theory, it is not good to allow doping in sports. Or, we may say that in the materialistic paradigm, sport is not an activity with transcendent dimension. Another type of relationship between philosophy and sport is a philosophical analysis of sport (Connor, 2011, pp. 13-15). It is not just the use of philosophical theories of particular philosophers, but a personal reflection of what sport is 1. The purpose of this inquiry is to identify crucial elements of sport and deepen the understanding of the role of sport in human life.

Philosophy and sport also interconnect when we use our own sporting experience as a starting point for our philosophical thinking and reflection. Hemphill and Smelter (Hemphill & Smelter, 2008), who use this method, try to introduce philosophy to undergraduate students. Their goal is not to produce philosophers per se, but to promote reflective practitioners who will enter professional fields such as exercise therapy and rehabilitation, teaching and coaching, as well as exercise and sport psychology counselling. Students are asked to write a descriptive and reflective account of a significant personal experience in a sport or leisure related activity, then they are exposed to narratives of the lived experiences of others.

Last but not least, the type of relation between philosophy and sport is the use of philosophical consultancy in sport. Trained philosophers or consultants use a method of dialogue and philosophical questioning in order to work with athletes and coaches. Tools that are used during the session are the identification of the question or topic that the athlete or coach considers important for their life. Then the philosopher uses tactics of conceptualisation, argumentation, clarification, distinction, deepening questions, problematization, creation of hypotheses, mind experiments, reflection, goal/vision/intention/dream settings and their critical evaluation, for a thorough analysis of the sport situations. This process aims at finding personal identity, producing self-awareness, clarifying of thinking, and a better understanding of athlete's and coach's place in the sporting and non-sporting world. On a general level, it aims at taking care of athlete's and coach's soul/self².

Historical predecessors of the concept of philosophical consultancy in sport

Philosophy and sport were closely intertwined in ancient Greece. Evidence for this statement can be found in the Greek system of education and personal development. Young men, competitive and excited to work on their body and soul in order to achieve $aret\hat{e}^3$, liked to spend their time in places called gymnasia. According to H. L. Reid (2012, p. 12),

¹ According to J. Kosiewicz, philosophy of sport has only initiated some process of structuralisation. Until the process of forming of a new discipline is finished, we will face philosophical reflections on sport rather than the philosophy of sport (Kosiewicz, 2006, p. 53).

² Presented types of relationship between philosophy and sport naturally tend to blend, but it does not exclude that they can be distinguished as different types of relationship.

³ This complicated term could be translated as perfection or virtue, it is however difficult to capture by words what *aretê* is, because it is not clare et distincte (for more info see Hogenová, A. (2001). *Areté: základ olympijské filosofie [Aretê: foundation of Olympic philosophy*].).



"Ancient gymnasia were more like modern parks: open-air spaces with easy access to water and room for running, wrestling, and other sports. Sometimes they included covered colonnades to protect athletes from the sun and rain. There might also have been facilities for undressing and oiling the skin, as well as storage rooms and bathing facilities".

Gymnasia were not just sporting facilities, but rather they were centres of various social events (Olivová, 1985, p. 131).

Ancient gymnasia were also popular among philosophers. H. L. Reid (2011, p. 44; 2012, pp. 10, 145-146) speaks about Pythagoras (6th century BC.) who is said to have recruited a young athlete to philosophy, first by paying him to study and then by eventually enticing to pay him for his lessons. Probably the most well-known figure in the 5th century Athens is Socrates, who was also interested in winning the youth over to philosophy, but unlike Pythagoras, Socrates was not after money. He was oriented at *arête*, which for him was a type of wisdom that enabled people to live a virtuous life. He saw physical activities as an important part of human life; nevertheless they were not the ultimate end for him. Olivová (1985, p. 136) mentions that Socrates was a gymnast and dancer; however, he was primarily interested in philosophical discussions. His method of dialogue is based on asking questions. It can be argued that the whole process has one ultimate goal – to awake the partner in the dialogue by showing him the discrepancies in his thinking. According to Šulavíková (2011, p. 158), Socrates was a "practical philosopher": "he is known to have related his thinking to his own actions, forcing others to do so as well".

My interpretation of Socrates is that he wanted to awaken people from their unexamined life and push them towards philosophical life. This life consisted in being aware of who one is and in acting in accordance with virtue. His "clients" were citizens of Athens, and included athletes. Most of them did not like Socrates, because by asking questions, he set a mirror for them and made them see who they really were. When talking to Socrates, people's masks of opinions about their "truth", that being either about oneself or about certain topic, were taken off. This awakening consisted in searching for *epistêmê* (knowledge) instead of *doxa* (opinion) was unbearable for them, so Athenians decided to get rid of Socrates. However, despite their effort, they could not get rid of the legacy that this philosopher left behind. It is the simple idea that only the examined life in accordance with virtue and truth is worth living. Socrates viewpoint was that philosophy, being considered as the process of self-examination, self-development, and examination of important topics in our life, is an important part in human life, and so also it is in an athlete's life.

What philosophers like Socrates, Plato, and others represented in their age is the ideal of *kalokagathia*⁴, which on one level can be understood as a balance between soul (*psychê*) and body (*sôma*) development. This balance presupposes that physical education without taking care of the soul is not satisfactory for human flourishing just as it is not satisfactory to take care of the soul without taking care of the body. Jirásek (2005, p. 218) states that the ideal of *kalokagathia* was realized through practical education (*paideia*), which puts emphasis on the bodies development by doing physical exercises as well as on the development of human consciousness through philosophical discussions. *Paideia* consisted of gymnastic education (*gymnastikê*)⁵ and of the art of the Muses (*mousikê*), which both together enabled young individuals to flourish complexly. *Kalokagathia* is an important concept behind the idea of philosophical consultancy in sport. The point is to find a balance between the sporting career (moderate physical exercises) and taking care of the soul. Ancient philosophers like Socrates and Plato saw these two phenomena as interconnected and as conditions for living a good life.

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⁴ From Greek *kalos* (beautiful), *kai* (and), *agathos* (good, noble). For a complex discussion about *kalokagathia* see Martínková, I. (2012). *Jak rozumět kalokagathii?* [How to understand kalokagathia?].

⁵ According to Jirásek, Oborný and Hurych, "the ancient gymnastics could be perceived as a harmony of sport and movement culture (it means sport without any attribute), and as the authentic mode of sport influenced by a natural human power and its harmonical development" (Jirásek, Oborný, & Hurych 2018, p. 5).



Living a good live life was a central topic for most ancient Greek philosophers. French author Pierre Hadot speaks about ancient philosophy as way of life. This approach is in opposition to the theoretical conception of philosophy as a way how to create mind constructs about reality. Hadot emphasized that ancient Greek philosophers did not just philosophize, but they lived the philosophical life. Having in mind that what matters is a good life, they investigated themselves and the world around them. They also used spiritual exercises in order to live in accordance with what their philosophical school considered to be good. Hadot states about ancient philosophy this (Hadot, 1995, pp. 59):

"Each school ...represents a form of life defined by an ideal of wisdom... every school practices exercises designed to ensure spiritual progress toward the ideal state of wisdom, exercises of reason that will be, for the soul, analogous to the athlete's training or to the application of a medical cure".

When I speak about philosophical consultancy in general and in sport, I consider philosophy to be a way of life. French philosophical practitioner O. Brenifier (p. 123) states that this practical dimension of philosophy does not really innovate, insofar as it represents a return to original concerns, to the quest of wisdom that articulated the very term of philosophy. He adds that this dimension "has been relatively obscured for several centuries by the 'learned' facet of philosophy". It could be argued that philosophy in the form of philosophical consultancy is similar to its antique version. It aims not only at asking important questions and looking for answers to them, but also at living a good life in accordance with the results of each personal investigation.

What is philosophical consultancy?

Philosophical counselling and consultancy is part of the larger domain called 'philosophical practice'⁶, which includes philosophical workshops (with groups or organisations), philosophy for children (P4C), philosophical coaching/training, and personal philosophizing. A person that engages in at least one of these areas can be entitled as philosophical practitioner. Despite its strong roots in ancient Greece, philosophical counselling and consultancy does not have a long tradition. According to D. Louw (2013, p. 60), founder of philosophical counselling (PC) is German philosopher Gerd B. Achenbach. In 1980's, he founded Gesellschaft für Philosophische Praxis and started his personal practice. The idea of philosophical conselling and consultancy became popular and it expanded all around the world (Louw, 2013, p. 60; Brenifier, p. 123). There are now organisations and institutes⁷, journals⁸ and books, training programs, and even master's degree program in Romania for those who want to become counsellors and consultants.⁹ The most influential figures regarding philosophical practice are Lou Marinoff, Oscar Brenifier, Ran Lahav, Shlomit Schuster, and Peter Raabe. It is hard to find people in the Czech Republic who focus on philosophical counselling and consultancy. There are

⁶ A distinction must be made between philosophical practice, academic (general/theoretical) philosophy (for example metaphysics, which is purely theoretical), practical philosophy (for example ethics, which offers theoretical foundations for human action), applied philosophy (often interdisciplinary, it focuses on matters of practical concern – example: applied ethics), and experimental philosophy (part of applied philosophy – it focuses on usage of systematic experiments aimed at understanding how people ordinarily think about the issues at the foundations of philosophical discussions). Philosophical practice, unlike aforementioned disciplines/fields, could be characterized as a philosophy that directly focuses on self-cognition, self-development, cognition of others, and on cognizing the world and life in general. It is the direct focus on self-cognition and self-development that distinguishes philosophical practice from other disciplines/fields of philosophy.

⁷ Well-known are for example American Philosophical Practitioners Association (APPA, https://appa.edu/), National Philosophical Counseling Association (NPCA, http://npcassoc.org/), and Institute of Philosophical Pracice (https://www.pratiques-philosophiques.com/eng).

⁸ Philosophical Practice - journal of the APPA.

⁹ West University of Timisoara, Program: Philosophical Counselling and Consultancy, link: https://www.mastersportal.com/studies/149240/philosophical-counselling-and-consultancy.html. Retrieved March 14 2019.



a few student theses¹⁰ and one critical publication¹¹ reflecting selective features of philosophical counselling and consultancy, but as far as I know, very little use of philosophy in practice.

A distinction can be made between counsellors and consultants, based on their competencies. Probably the main difference is that philosophical consultants do not address mental disorders, whereas philosophical counsellors due to their special training can.¹² Philosophical consultants set mirrors for their clients by asking them questions and by demonstrating their clients their thinking processes, whereas counsellors rather advise people on their personal life philosophy (Šulavíková, 2011, p. 157). There has been an extensive debate about the differences and similarities between PC and psychotherapy and also between PC and academic philosophy. I will not address this issue here, but I offer tips for further reading.¹³ Philosophical consultants, which I focus on in this article, differ in their methods, styles, and areas of interest. O. Brenifier (p. 123) states that "methods vary enormously depending on the practitioners who design and apply them". Some methods and styles of consultation are quite similar to coaching and psychotherapy and it will remain a big challenge to distinguish between these areas.

Brenifier mentions two specific and common prejudices that can be said about the philosophical consultation. The first prejudice consists in believing that the practice of philosophy (and thus of philosophical discussion) is reserved only for a learned elite, and so philosophical consultation is not for everybody. The second prejudice says that philosophical consultation cannot be philosophical since it is open to all. It is based on thinking that philosophy is reserved only for scholarly elite. Brenifier tries to refute these prejudices. His strategy is based on so called 'philosophical naturalism'. This concept "presupposes that the emergence of philosophy is not a particular event, but that its living substance nests in the heart of man and lines his soul..." (Brenifier, p. 124). For Brenifier, philosophical inquiry is natural for man. It is therefore possible to state that everyone may philosophize (though under certain conditions) and that this inquiry is really philosophical¹⁴.

There is no universal definition of what philosophical consultancy or counselling is. D. Louw (2013, p. 67) offers this minimal definition: "PC involves a trained philosopher helping an individual to deal with his/her problem". This definition (or rather characteristic) explicitly mentions that the consultant is a trained philosopher. This requirement is recognized also by NPCA: "... philosophical consultants hold a minimum of a Masters degree in philosophy from a recognized graduate program"¹⁵. D. Louw (2013, p. 67) also offers a complex definition that may capture the most prominent traits of PC:

¹⁰ For example ,Co je specifické pro filosofické poradenství? [What is specific for philosophical counselling?] (Kopťová, 2014), ,Filosofická praxe a poradenství [Philosophical practice and counselling] (Helmich, 2013), ,Filosofické poradenství [Philosophical counselling] (Kopťová, 2012).

¹¹ Horák. O. (2015). Filozofické poradenstvo/kritika [Philosophical counselling/critique]. Olomouc: Palacký University.

¹² For more info see: http://npcassoc.org/practice-areas-boundaries/.

¹³ For example M. Rovira – Psychology is the child of philosophy: an interview with Lou Marinoff (2017), L. Marinoff – Playing with ideas: an interview with Lou Marinoff (2016), D. Louw – Defining philosophical counselling: an overview (2013), B. Šulavíková – Questions for philosophical counselling (2012), J. Šulavík – Problém vzťahu filozofie a psychoterapie [Problem of the relationship between philosophy and psychotherapy] (2001), A. Howard – What can philosophy offer counselling and psychotherapy? (2000), M. Gole – Clinical philosophy in the treatment of paranoid schizophrenia and obsessive-compulsive disorder (2015).

¹⁴ This concept needs clarification. What is meant by 'philosophical' here is a process of inquiry rather than a particular philosophical system. However, if we want to find philosophical system behind the idea of philosophical consultancy, it would be pragmatism with its focus on a practical impact of thinking on our life. Philosophical consultation as a method of inquiry also has a phenomenological background and with its focus on language and verbal expressions has a connection to analytic philosophy (philosophy of language).

¹⁵ http://npcassoc.org/practice-areas-boundaries/. Retrieved March 14 2019. It should be noted that this requirement applies to countries and organisations with developed concept of philosophical practice. So far, Czech Republic does not have any concrete requirements for philosophical consultants and counsellors. There are neither courses nor trainings for candidates yet.



"PC embodies the process wherein I, a trained philosopher, professionally care for you, my client or guest. I care for your self and world (and thereby for my self and world) by applying my training in philosophical skills and theory to address your problem... I can address your problem only in so far as it involves sane, yet confused or obstructed thinking (i.e. reasoning or conceiving), and not in so far as it involves physiological or neuropsychiatric dysfunction. I do so (self-)critically and creatively in a dialogical partnership with you... Through our probing and prompting questions we continually co-create a space within which both of us may find and keep finding our own ways of dealing with the problem in question...".

A question can be raised about the impact of philosophical consultation and counselling on client's life. It seems that impact depends and can be measured based on the explicit goal of philosophical consultation and counselling. ¹⁶ J. Šulavík (2001, p. 591) states that the goal of philosophical counselling is practical wisdom. B. Šulavíková (2011, p. 157) believes that it is the "good life" that is central to the agenda of philosophical practice. She sees PC as "a conversational process that controls dialectic thinking and reflects the fears and questions that arise in everyday life as well as questions about meaning of life as a whole". Philosophical dialogue is according to this author a space for seeking a good life, identity and critical thinking. Marinoff (2016, p. 5) sees philosophical inquiry as a playful activity: "philosophy is to some extent a play of, and with, ideas". Even though philosophy is often connected with deep thinking and seriousness, there is a place for play¹⁸, humor, and fun in it. Marinoff (2016, p. 8) states that "humor may catalyze the learning of philosophical argument". It also helps to take a distance from ourselves and the topic that we are dealing with, which is an important condition for philosophizing.

Philosophical consultants may deal with several types of problems and topics. NPCA offers a list of examples among which we may find moral issues, values disagreements, time management issues, retirement, problems with family, falling in and out of love, friendship issues, rejection or discrimination. ¹⁹ Topics and problems vary depending on the interests of a particular client.

Philosophical consultancy in sport

So far, I have not found anyone who would be interested in philosophical consultancy in sport. Nevertheless, there are attempts that focus on using philosophy in sport. What exists is professional philosophy as one of the fundamental elements of effective sport psychology consulting practice.²⁰ It can be argued that philosophical consultation is the same, or at least similar, to an existential approach to sport psychology. Ronkainen and Nesti (2015) maintain that this approach

"contributes to sport psychology by bringing neglected concepts including courage, authenticity, spirituality and personal meaning into the centre of research and applied practice...existential sport psychology is more concerned about understanding the subjective reality of sport participants and meanings they assign to their experiences than developing universal theories to predict and enhance athletic performance".

¹⁶ Although empirical research can provide relevant data about the impact and efficiency of philosophical consultation and counselling, it can be argued that we can see the positivity of philosophical consultation without empirical data, but just rationally based on the philosophical analysis of human being and his relation to the world. Nevertheless, it is important to analyse what are the attributes of good philosophical consultation and counselling.

¹⁷ Using definite article here could mean that this good life is rather objective than subjective.

¹⁸ Some authors argue that ludity (playfulness) forms the substance of sport (Jirásek, Oborný, & Hurych 2018, p. 8). Therefore, philosophy and sport may be linked by play.

¹⁹ http://npcassoc.org/practice-areas-boundaries/. Retrieved March 14 2019.

²⁰ For more info see for example article *Professional Philosophy: Inside the Delivery of Sport Psychology Service at Team Denmark* (2011) written by K. Henriksen.



I maintain here that philosophical consultancy in sport has its specific set of methods and goals that makes it an autonomous area. Nevertheless, similarities with psychotherapeutic approaches, sport psychology methods, and coaching styles²¹ are indisputable.

Another discipline/field that shares some topics and methods with philosophical consultation is sport chaplaincy. The aim of sport chaplains is to provide spiritual and pastoral care to professional and amateur sport. According to Sport Chaplaincy UK, sport chaplain is expected to provide "ongoing pastoral and spiritual care, by permission, to those of faith or no faith, for the holistic well-being of all involved in the community of sport."²² Philosophical consultant also cares for his or her client, but in a different way than sport chaplains. Although both professions use the method of dialogue, they differ in their style and purpose. Philosophical consultant does not provide pastoral and spiritual care, but rather a philosophical care. Religion, faith, and spirituality²³ may be part of the philosophical discussion, but consultant is not proactive regarding how things are. Rather he uses the strategy of philosophical dialogue to set a mirror for client's thinking. The starting point for consultants is rationality, whereas the starting point for chaplains is faith and/or spirituality.²⁴

Philosophical consultants and clients may focus on topics such as dealing with fear, understanding one's role in the team, school and sport balance, finding purpose, sport's identity reflection, goal/vision/purpose/dream evaluation or understanding of my sport. The main purpose of philosophical consultation with an athlete or coach is to challenge and clarify his or her thinking, promote his or her self-awareness, and deepen his or her understanding of self and the world. The purpose is not to heal, but on general level to take care of the client's soul²⁵. Consultants focuses on the worldviews and attitudes of their clients, critically examines them and if needed, substitute them by better ones.²⁶ This all happens in a dialogue between consultant and client. The key part of this process is philosophical questioning.

I'm interested in philosophical consultancy in sport because of my hockey career and academic background in philosophy. I work mainly with young hockey players and their thinking in order to achieve clarity in it. As well, I work with the attitudes and worldviews that shape their everyday actions. What I use during my work is philosophical dialogue. The main purpose of philosophical dialogue is not to enhance the player's performance. It aims not at creating better athletes, but rather on awakening them.²⁷ Its central part is questioning that presupposes certain lack of knowledge on both sides. Consultant and client wish to know something, one about the other and the topic, the other about himself or certain topic in his life. Brenifier (Brenifier, p. 10) distinguishes between philosophers and sophists based on their relation to knowledge: "According to the tradition, the philosopher differs from the sophist. For, if the former wishes to know, the latter is already in possession of this knowledge". Philosophical sessions presuppose that the client wishes to know and is therefore open to philosophizing.

²¹ For more info about coaching in sport and other areas in human life see for example book series *The Inner Game* written by Timothy Gallwey.

²² Retrieved April 10 2019 from https://sportschaplaincy.org.uk/what-does-a-chaplain-do/.

²³ For more info about religion and spirituality in sport see for example articles *Religion and Spirituality in Sport* (2018) and *Religion, Spirituality, and Sport: From Religio Athletae Toward Spiritus Athletae* (2015) written by Ivo Jirásek.

²⁴ This does not mean that rationality and faith/spirituality are in opposition. It only suggests that consultant and chaplains differ in their approach toward their clients based on their worldviews and goals.

²⁵ This statement does not presuppose or refer to metaphysical dualism. It only tries to capture the focus of philosophical consultation, which is mainly concerned with mental processes. Nevertheless, these processes have impact on the human being, not only on the mental side. The author of this article consider himself to be closer to holistic rather than dualistic approach toward the human being.

²⁶ According to Marinoff, "to change one's philosophy is what makes the difference to one's personal evolution toward a fulfilled life" (Rovira, 2017, p. 7). I consider worldviews and attitudes to be main constituents of personal life philosophy.

²⁷ When I want to enhance player's performance, I focus more on the methods from coaching and sport psychology.



Player or coach is free to choose whether he wants to engage in a philosophical dialogue. In most cases, people that are interested in having a dialogue have a concrete topic that they want to discuss. I will focus here on players rather than on coaches, because I have a bigger experience with them. Cooperation with younger players usually starts from the initiative of their parents. If the player is younger than 18, I meet with his parents regularly, so they can have a general idea what the cooperation is about and what results we have reached. The philosophical consultation is predominantly a one-on-one process. ²⁸ Usually the cooperation starts with player's question. ²⁹ It is not any question, but the one that is important for the player. The client is asked to write down the question, which gives boundaries to his thinking, makes his interest visible and therefore open for further analysis. Initial questions are not always philosophical, but there is always a philosophical background behind them. Examples of such questions are:

- Why don't I always play at 100%?
- What would be the meaning of my life if I did not play hockey?
- How do I get rid of my fear?
- How can I be calm in the game?
- How to think positively?

When the question is asked, the process of the philosophical dialogue may begin. I don't consider a player to be my patient or a person that needs psychological help, but rather a partner in the thinking process. As a consultant, I ask questions that make my client think. I ask these questions based on client's answers and presuppositions they contain. We don't just talk. Our dialogue is philosophical, because it contains argumentation, problematization, clarification, conceptualisation, deepening, distinction, creation of hypotheses, mind experiments, reflection, search for truth and understanding, and most importantly, it endeavours to know thyself and overcome thyself.

The initial question of the player is not as important as the client himself that is behind the question.³⁰ Therefore, what I try to offer to the player is not an answer, but rather another question that opens the thinking process.³¹ The goal is not to find the exact answer. We aim at the process of self-development through the thinking process. When a player does not know, consultant offers an idea that the player may use as a material for his thinking. The dialogue is structured. Consultant takes notes that serve him as a basis for his questioning strategy. Client is also asked to write down his answers/ideas. The purpose of this is to bring clarity to the session by making thoughts visible. Players often realize that working with oneself is a complicated task. The answers that we reach (for example 'in order to get rid of my fear, I need to learn how to be in a game', or 'in order to be calm, I need to learn to be with myself') function not only as practical opportunities for self-development, but also as a material for further analysis. The ideal is that the player or coach leaves the session with a certain level of clarity in his thinking, with deeper understanding of himself and the topic that we focused on, and with new idea what would be good to do next. Cooperation can be short-term (1-5 sessions) or long-term (5-approx. 10 sessions) based on client's preferences and areas of interest. It is for players of various ages. Cooperation usually differs in length (usually between 45-90 minutes), form and content based on the age of the player.

When working with younger hockey players (age 10–15), I focus on playful activities, on stimulating wonder and on learning basic philosophical skills so the player is prepare to philosophize. With older players (age 15–

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²⁸ Exceptionally I have a session with two players. The condition for this is that players know each other well and are ok with this type of cooperation. Advantage of this cooperation is that one player may function as a mirror for the other.

²⁹ When a player does not have a question, we continue in the work from our last session or I offer him possible topics that might be interesting and useful for him.

³⁰ According to Oscar Brenifier, the word itself, which is a necessary constituent of any question, indicates an author, his preoccupations, his emotions, his way of being, his particular thinking.

³¹ Example: Client's question is 'Why don't I always play at 100%?'. Consultant then may use reflective question that will direct the attention more on the client: 'Why is the answer to this question important for you?'. Another possible strategy is to ask the client to give at least 3 hypotheses as rational answers to his question and then critically evaluate their validity.



20), the cooperation is more intellectually demanding.³² We engage in a dialogue with specific rules and goal. If the initial question is practical (for example 'How to get rid of my fear?'), we also use specific physical and mental exercises in which we focus on breathing, controlling of thoughts, and dealing with emotions. I put emphasis on reflecting these exercises so the player will do what suits him the most.

Challenges in bringing philosophical consultation into sport

There are several challenges in bringing philosophical consultation into sport. Here are four of them based on my personal experience:

- a) Taking distance from our own ego it is tempting to have paternal approach during the consultation or to be stuck with oneself; the challenge is to focus on a client and his thinking rather than on being only with oneself.
- b) Distinction between what is philosophical and what is not if a consultant is not able to distinguish between that, consultation and the whole practice may easily become vague. It is therefore important to constantly educate oneself and reflect on one's work.
- c) Adaptation to the sport environment the consultant should be able to combine his philosophical expertise with interests and thinking level of his clients and make his or her speech understandable.
- d) Gaining trust since philosophical consultation is unknown to most athletes and coaches, consultant faces the challenge to gain their trust by working on himself and by doing his work properly.

Conclusion

Philosophy and sport could interconnect on several levels. One of them is the use of philosophical dialogue with athletes and coaches to work on their inner development. This interconnection between philosophy and sport has its roots in ancient Greece, where philosophy and sporting practice were united in the ideal of *kalokagathia*. Taking care of the soul as well as of the body is not only a theoretical concept, but primarily a way how to flourish as a human being. The idea of philosophical consultancy connected with sport seems to be a good way how to achieve this flourishing. Nevertheless, it should be noted that human flourishing is a complex idea. Both sport and philosophical practice are important for achieving it, but not sufficient. Living a good life, which I presuppose to be the goal of a human being in general, consist in more than playing sport and philosophizing. On the other hand, it could be argued that these two activities, when done properly, are part of living a good life due to the positive qualities they have.

This article tries to introduce the concept of philosophical consultancy in sport. There are practically no texts that would deal with this topic, so it is clear that further inquiry is needed. Usage of philosophy in modern sport practices contains a potential not only for an academic research (both theoretical and empirical), but most importantly for player's and coach's personal development.

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³² Oscar Brenifier considers speech in philosophical practice to be more rigorous, harsher, more demanding than speeches in other contexts.



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Received: 14 March 2019; Accepted: 17 April 2019





The Justice of the Grand Slam Tennis
Tournaments on the Basis of Draw,
Competition Format System and Final
Result: a Case Study of the US Open 2017
Men's Singles Tournament

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

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ABSTRACT

The tennis Grand Slam tournaments play a key role among the major sport events. Sport has also got a social interest to strive for justice. Is the main draw always fair? Is the competition format system right? Overall: can we achieve a just final result? When answering these questions, we need to focus on the telos of the sport event. Present study shows the relating theories of justice and examines them in connection with the US Open: from the evolutionist conception, through Aristotle's excellencebased justice theory, to egalitarianism, meritocracy, equity and it also analyses some issues around positive discrimination. The study examines the justice theories of the US Open 2017 Men's Singles Tournament's with special focus on the draw, the competition format system and the final result. An important point: we can only talk about justice if it is consistent with the telos of the event – this is an exclusion criterion. In addition to the systematic processing of justice theories, the research is based on the International Tennis Federation's (ITF) official documents and on the case study: the official competition regulation and final result of the US Open 2017 Tournament. As an outcome of the research, we can conclude that several theories of justice appear in accordance with the telos of the US Open 2017 Tournament. Each element, namely the draw, the competition format system and the final result can be fair, however, they all depend on the applied theory of justice. Which theories should be applied in certain cases and why? The research also confirms that certain theories of justice do not match the telos of the US Open Grand Slam Tournament. These theories cannot be applied in certain cases. For future search areas we can examine other justice theories, or other related tennis event's justice.

KEYWORDS

telos, justice, US Open, draw, final result

Explanation of topic choice: the US Open

Prelude: the justice related to the competitor's list and the seeds of the US Open 2017 were analyzed in a previous study (Zimányi & Géczi, 2018b). Further considering the question of justice, in the present study it is



extended to the draw, to the competition format system and to the determination of the final result. The starting point is still the competition regulation (rulebook) to which the competitors (and their teams as well as the national tennis federations) have to adapt. The raison d'etre of justice theories are examined in this respect – which will answer the examined questions.

Today's major sport events, especially the Grand Slam tennis tournaments are given significant attention – since they can be monitored through various media channels (even live stream) worldwide. Tennis events, especially the tennis Grand Slam tournaments (Australian Open, Roland Garros, Wimbledon, US Open) including the US Open, are major sport events. These events are attended by a wide range of people, alongside competent ones, so making the whole range of these events pretty large social ones. In the US Open Men's Singles Tournament (in the following: US Open) anyone can represent himself who is entitled to the participate. The organizers strive every year to manage quality competitions. This study understands quality in a less known and applied way, approaching a new perspective: justice – that Aristotle called the 'supreme virtue' (Aristotle, 2011). We believe that this aspect of justice will also become a quality aspect – not only in the sports, but also in other social subsystems.

For the US Open organizers the issue of the justice is equally important, as in other areas of life. How can be the draw fair? What does fair competition format system mean? Is every final result fair? How to adapt to a straight-line relegation system (main draw), where no mistake can be made¹? The study aims an (among other things) to provide professional answers to these questions. To answer, we collected and examined justice theories. In addition, we analyzed the US Open 2017 Men's Singles Tournament: the official competition regulations, since these terms starts every competition), and on the basis of later achievements and final result.

Introduction: the common telos of the competitive sport and of the US Open

Sport events can be grouped and analyzed differently: according to the analogy of sport clubs, we can distinguish competitive, leisure and corporate sport clubs, sport activities and sport events (Zimányi & Vermes, 2016). The Grand Slam tennis tournaments are definitely considered competitive sport events so we analyze these world events accordingly. It is important to mention that the study focuses on the main draw. We exclusively deal with the examination of the qualification, where it is justified and relevant to the rest of the study, or it needs an explanation.

To determine the telos of the US Open, firstly we need to clarify the essence of the Grand Slam tennis tournaments. In one year, four Grand Slam tennis tournaments are organized and these tournaments give the most world ranking points. One (the last/fourth) Grand Slam tennis tournament is the US Open, where increasing number of events are held year-by-year. This research presents the Men's Singles Tournament in detail (http://www.atpworldtour.com/en/tournaments/us-open). If we wish to explore the telos of the US Open, first of all we have to define the term of telos. For the term of telos, we first find it at Aristotle, who claims that we need to find the goal, the essential nature (Aristotle, 2011). Accordingly, what can be the purpose, the essence of the US Open, that is: its telos? Since it is about competition, it is also necessary to comply with the telos of the competitive sport. Meanwhile, we mean the following thesis drop (acceptable to science and to the general public as well): while respecting the normative values of sport² (Simon, Torres & Hager, 2015), to win a competition under 'equal initial conditions'; defeat all opponents and so to be the best. This is the US Open championship title, and if all previous conditions are met, then within the competitive sport, in addition to the telos of Grand Slam, the telos of US Open also prevails. However, are all the wins and US Open championship titles fair and just? Is the draw fair? What do we think: is the competition format system fair? Always and in all circumstances, is a just final result born? The answer is: yes, but only if the prerequisite is met, in this case the

¹ If we loose, we defeat and can not continue the tournament.

² Values not analyzed in this study.



telos of the US Open. However, to better understand the truth, it is also necessary to examine various theories of justice.

General theories of justice – especially at US Open

What does the notion of justice mean? The answer is: divide the available resources in the right way, that is, as we deserve it (Sandel, 2009). However, the question arises: what do we deserve and why? It is important in the future in terms of interpretation to approach the question from a moral point of view. Here are some of the theories of justice, which can play a role in the US Open. With regards to the scope of the study, not all possible justice theories are analyzed and we are not analyzing it in every detail according to the needs of completeness since the study focuses on justice in the US Open. Thus, after listing the selected theories of justice, the relevant aspects of justice theories have to be analyzed and explained.

Evolutionary justice can be interpreted as the adaptation of the evolutionary theory to justice. Therefore, adaptation to external and internal conditions is of primary importance (Darwin, 2015). In adaptation such as a tennis tournament, at the US Open we have to define the tactics in a way, that we have an influencing role during the match. That is: we can always win over our next opponent. By Aristotle, the justice appears, as a 'supreme virtue'. The basis of the Aristotelian justice (and discrimination) can be the excellence. By Aristotle, justice can be interpreted as a cardinal virtue: give the people what they deserve, and it can be determined on the basis of excellence – so the 'others' will be in the best position as well (Aristotle, 2011). According to egalitarianism, equality must be sought, i.e. 'everyone is equal' – no one can be distinguished from anyone else by any criterion. Everyone should be treated equally, according to this theory, 'everyone deserves the same'. The meritocracy, on the contrary represents an achievements-, and justice-based system. Therefore, on the basis of the achieved results such as the world ranking, it is possible to distinguish individuals and groups. So who perform better and their results are measurably better, or have a better world ranking position), they will give priority and advantages against the others based on this theory of justice (Sandel, 2009).

Positive discrimination can also be a justice aspect. According to this theory, we can positively distinguish someone. But who are the ones to distinguish, and based on what? How can this system be accepted as fair? In addition to the 'Sandel principles' (promoting diversity, compensating past sins, and correcting preconceptions; Sandel, 2009) at the area of sports (including tennis competitions), the prioritizing and supporting of 'home players has been used several times. It can be the basis of the positive discrimination's justice. The positive discrimination theory, during the US Open competition was applied – we can observe the participation of the competitors (Zimányi & Géczi, 2018b). Also appears positive discrimination in connection with the draw, the competition format system and the final result? It does not belong to the present research project, but we believe it is important to mention it in relation to discrimination, that sport must reject any kind of negative discrimination. In fact: it has to act against it – it is required by the telos of the sport. Therefore, the draw, the competition format system and the final result cannot be treated and influenced based on any negative discrimination criterion.

Previously, several theories of justice have been listed, however, only those theories of justice can be applied, which correspond to the telos of a sport event, in this case, of the US Open. That is, there are some excluding theories which are justified in other areas under this examination. Examples include positive discrimination, which may appear and apply during the competition format system – but no longer in determining the final result (as it is not compatible with the telos).



The goal of the study: justification for the applicability of theories of justice and applied research methodology

Among the above mentioned and briefly explained theories of justice, which one is to follow and why? Which of the theory's application is justified in relation to the determination of the US Open's draw, competition format system and final result? Outdated statement (I am ready to explain why), the question is: which theory (or theories) should we follow? Such a theory of justice must be followed, which also corresponds to the telos of the event, this is an exclusion criterion – so the theories listed above need to be systematized and examined in relation to the draw, to the competition format system and to the final result. To get a complete and realistic picture besides the processing of the theories of justice, we have analyzed the official competition regulations of the US Open, including the number of competitions, we examined the US Open 2017 Men's Singles tournament's draw, competition format system and final result, as a case study. The aim of this study is the presentation of the applicability of the justice theories in sport events, with special regards to the US Open. In the following we describe the results that our research project has got in relation to the US Open's draw, competition format system and final result. Of course, every US Open and every tennis tournament is different, but the US Open is held annually, therefore the interpretation of the theories of justice is true and valid not only for the US Open 2017, but also in general (with minor modifications and variations) for the current Grand Slam tournaments - mainly to the general tendencies of the US Opens. Of course, we are aware of the possible changes that may occur at any time. Our research analyzes the current situation and the US Open 2017 Men's Singles Tournament.

The justice of the draw

Which theory makes the draw fair? The Aristotelian notion of justice and meritocracy are considered together in this case, since they are enforced by the seeds of the US Open: the Aristotelian excellence-based justice (i.e. the one who is more excellent will be seeded) and the merit-based meritocracy referring to the results previously achieved, which also is also shown by the current world rankings. How well do the world rankings show the relative strengths? It is another question, which we do not examine under the present circumstances.

In the draw, the first 32 players in the world ranking will be seeded. The other competitors will be randomly placed to one of the free places in the main draw, a total of 128 competitors can participate (http://www.itftennis.com/officiating/rulebooks/grand-slams.aspx). What about the evolutionary conception? This principle, as always, still prevails also due to external conditions. So it is compulsory to adapt, only then can the 'truth' exist, according to this theory. What about the other competitors, like the 33rd position in the world ranking and the followings, who have a worse world ranking position? This is a more populous 'camp' – they are randomly drawn to the main draw. The main board has paired branch up to the finals, only the winner will advance, so only the one can remain, who will be the champion. If they are randomly drawn, then everyone has equal chances, i.e. the system is egalitarian. It can be called a controlled (ludus) alea-type game as well (Caillois, 1961). Only a random draw will decide, how strong matches are formed, who will play with whom (without the 32 seeded players). We cannot know the pairing in advance, but it is also likely that they will not be the same strengths matches (they cannot be because of the human and sport essence either) – even though we mean the same round. But this is not the goal of the draw, the non-seeded will receive the same chance, either has the 33rd or the 92nd position in the world ranking – they are the same at the draw.

That is, there is no advantage to the 'better, the more excellent' (if they are not among the Top32 world ranking positioned players), who did a lot to have a better world ranking position. In the 1st round, the 33rd position can play a match against the 34th position in the world ranking – as well as the 82nd and 90th position of the world ranking in another pair. It is not the same strength, based on world ranking. It only depends on the random draw, while the previous world ranking leaders or champions can meet in the 1st round, or not (if they are not currently seeded, based on their current world ranking position). Therefore, the draw of the non-seeded ones is egalitarian,



because everyone has equal chances – no matter whether they are barely not seeded or they have just qualified to the main draw. From another point of view, it is also egalitarian, that all non-seeded players have a chance (besides the seeded players) to play against a qualifier (Q) or a wild card (WC) player (advance to the next round can exists even then, if somebody's opponent withdraws – but this issue is not under examination in the present study).

Regarding the US Open draw, fairness does not appear among the theories of justice, (such as protected rankings: PR), nor handicap and positive discrimination – if positive discrimination is interpreted according to Sandel (2009). If we do not interpret it in accordance with the 'so called Sandel principles', according to a new type of approach, there may be a kind of positive discrimination at the draw. The one who has a better world ranking position will be seeded, so there is a kind of protection for the draw (i.e. they are positively distinguished), but it is more based on meritocratic and on Aristotelian excellence. It can also be valid for protected rankings (PR) If based on this, someone is included in the Top32 seeded players (the method of calculating the protected ranking is not analyzed by this study). Until the 3rd round the seeded players cannot play with other seeded players, as well as 'the best and the most excellent' seeded players can only play with each other towards the end of the US Open tournament. If the seeded players were perfectly defined by the organizers before the tournament (based on the knowledge and on the world ranking positions), then the lower numbered seeded ones advance to the next rounds. That is to say, the Top32 seeded players will advance to the 3rd round (there are 32 players that can be seeded to this round). To the 4th round the Top16 seeded players, to the quarter-final the Top8 seeded competitors advance. The semi-final is played by the 1-4 seeded players, while the winners of these matches play the 'dream final' between the 1st and 2nd seeded competitors – for the US Open title (http://www.usopen.org/en_US/draws/index.html?promo=subnav). A short thought on what we mean on the above described essence of the human and sport correlation: every person is different, no one can fight, compete and perform twice in the same way. The performance depends on the daily form and concentration – as well as from the own and the opponent's momentary performance. How much can someone give out from yourself, how much does the opponent let him prevail. The sport is characterized by "resultsturning" and uncertain final result – which can be surprising, since (not always the favorite one wins). If we accept this principle, then match-pairs of the same strength will never take place - neither among the same opponents, if they meet again later and struggle against each other in other tournament. Who can deliver a maximum performance in a situation? Psychology and the science of the combat sports explore this question, however the present study does not focus on this in the present circumstances.

Let's look at the draw details. As described, seeded players can play with other seeded players earliest in the 3rd round: the 1st seeded player is placed on the top branch, the 2nd to the bottom branch, the furthers possible from each other'. The 3rd and 4th seeded players are picked for the top and bottom branches – initially equal opportunities, 50% chance on which branch to go; i.e. the system is egalitarian. The same applies to the 5-8th, the 9-16th, and the 17-32nd seeded players, the difference is the wider seeding pile. What about the other competitors? The 'remaining' (128-32=) 96 competitors (world ranking positioner, qualifier, protected ranking and wild card holder, lucky loser: LL) random without constraints, but regulated alea-type distribution (Caillois, 1961). So through egalitarianism, only a random draw will decide how strong and challenging struggles are formed. Of course, they cannot be the same strength pairings – but it is not the aim of the draw. The following 1st round pairs may also occur:

- 1st seeded versus 33rd in the world ranking,
- 32nd seeded versus 33rd in the world ranking,
- Wild card³ (WC) player versus lucky loser⁴ (LL),

³ US Open organizers can give wild cards to players who do not have the right world ranking position for the main draw (this decision is based on the positive discrimination).

⁴ Who started the competition in the qualification, but he lost in the qualification final – but somebody's (who could play



- Lucky loser (LL) versus lucky loser (LL),
- Qualifier (Q) versus Qualifier (Q),
- Qualifier (Q) versus lucky loser (LL).

It is interesting in the latter case, that this match, played a few days before the qualifying final match, can be repeated on the main draw. It is possible that they played against each other in the final qualifying round. The winner will be placed on the main draw, while a loser, through a withdraw of another player, who would have been entitled to the main draw – as a best ranked runner-up qualification finalist, may be on the main draw as well⁵. They were drawn again together according to the applied egalitarian principle – in relation to the draw. Both of them met the evolutionary principle (one acquired this in his own right, the other got it through an 'external factor' not just on his own, by withdraw). They also correspond to meritocracy as well as Aristotelian excellence-based discrimination, based on the world ranking position and on the qualifying results. The repeated main draw match can be anticipated but we do not know the final result, it may be the opposite result. Therefore, the one who won the qualification final match; his opponent (lucky loser on the main draw) may defeat him on the rematch (on the main draw, for example in the 1st round). Based on the evolutionary theory of justice, the more adaptable player wins. The principle of the meritocracy can also be observed: who reached better results, as the Aristotle's excellence: the one who is more excellent, can defeat his opponent (it could be different in the qualification as on the main draw).

- 1st seeded versus a protected ranking (PR) player (even former number 1 in the world ranking),
- former number 1s against each other, etc.

We can see that it is a coincidence who are drawn together (unequivocal: before the qualification criteria must be met), so who should defeat whom. No one knows in advance against which opponent to prepare, whom to adapt to, and thus no one can actually influence the 'uncertain final result', against whom to achieve a better results, and against whom to be 'more excellent'.

The 'complete' egalitarianism of the draw (without the seeded competitors) is valid until the 3rd round. From the 4th round on, seeded players can also play against other seeded players. Which seeded players will play against the other one (if they are not defeated in this tournament phase)? It partly remains random, but not exclusively. Evolutionary adaptation can be observed, as the Aristotle's excellence and the meritocracy – because we have to defeat our opponents, if we wish to reach the next tournament round. Accordingly, the seeded players are distinguished (per pots): seeded 1-2, seeded 2-4, seeded 5-8, seeded, 9-16, and seeded 17-32. The better the world ranking position is, the lower seeding number – the pots-members cannot meet and cannot play with each other before a certain tournament round (we do not analyze this issue in detail in this study case).

Furthermore, during the research we determine: the theory of the positive discrimination does not exist at the draw (http://www.itftennis.com/officiating/rulebooks/grand-slams.aspx).

The justice of the competition format system

An also highly relevant question is the justice of the competition format system as well, because besides the competitor's list, the seedings and the draw, this determines largely the final result. This is one of the last steps

in the main draw) withdraw, he can be on the main draw, as a best ranked (world ranking) among losers of the qualification final. In this case not only in their own hands is the fate, but evolutionary adaptation can be observed (to the competition regulation), like the meritocracy, and as well as the Aristotelian excellence-based theory of justice (reached the qualification final).

⁵ In advance we do not know, how many withdraws will be, in the Roland Garros 2018 tournament 8 lucky losers (LL) could play in the main draw. It should not be based on such a number of withdraws (http://www.nemzetisport.hu/tenisz/roland-garros-11-kor-mar-jatszom-a-centeren-rohannia-kellett-dimitrov-ellenfelenek-2637937).



that affects the final result. Is a just and fair final result possible to achieve? Under the competition format system, we mean the previously announced competition regulation (the rules), the tournament and daily schedules, and the advances' justice (in accordance with the terms and conditions of the competition). Of course, the telos must also be fulfilled: i.e. all the basic conditions must be ensured; the telos of the sport, the tennis, the Grand Slam, and the US Open must be met. This is an exclusion criteria, without this we cannot talk about a fair competition format system. Similarly prevailed the telos at the draw, therefore it corresponded to the goal and to the essence of the sport, of tennis, of the Grand Slam and of the US Open as well (which also contains the mission and the vision). How did the competition format system of the US Open 2017 Men's Singles Tournament look like (www.atpworldtour.com/en/ tournaments/us-open)?

According to the evolutionary justice, the primary goal is the adapting to the competition format system. The ones who best adapts (this is an internal factor, unlike the random draw), can prevail the most. Firstly, it is necessary to adapt to the external factors, and to the opponents. What about the Aristotelian theory of justice? Does excellence play a significant role? The answer is yes. Those competitors advance who provide superior (i.e. 'more excellent') performance in current matches. It is possible: the same performance would not be enough against another competitor - here we refer to the evolutionary perception, for adaptation. Accordingly, we have to adapt to the opponent, if 'weaker performance' is enough, somebody do not have to perform better than what is enough - a competition can keep for a long time, we can spare our power if we would like to win the competition, the title. The main point and the essence of the evolutionary approach is the optimal adaptation – therefore the best adaptable competitor wins. During the US Open and its competition format system, it is not allowed to make any mistake: with one defeat the competition is over, in the current year we knock out and then after there is no fairness and anything else for compensation (with the exception of a previously analyzed example of some qualifying losers who became lucky losers in the main draw). Namely, the competitors have to defeat the next opponent in compliance with the rules. The main point is not to earn more total points against the current opponent, but rather to decide who collects them in the most efficient way, according to the rules, i.e. who will win the current match and goes through to the next round. At the US Open 2017 Women's Singles tournament, the Latvian Sevastova (LAT) collected more total points, than her opponent Stephens (USA) however at the end, Stephens triumphed and went through to the next round. According to the US Open competition regulation, at the singles tournaments – women have to win 2 sets, men have to win 3 sets (not in a row). Therefore, Stephens could better adapt to (the external) circumstances and to the internal conditions, i.e. to the competition regulation and to the (current) opponent, by which she could defeat her opponent. Each opponent is different; it is different to play with a seeded player, than a qualifier (who was playing four times in a row). At the US Open Men's Singles Tournament, Carreno-Busta (ESP) reached the quarter-final this way, but afterwards a 'higher seedings number' competitor was followed - whom he defeated and went through to the semi-final, where he lost and was knocked out against Anderson (RSA), who later lost in the final, against Nadal (ESP) (www.atpworldtour.com/en/tournaments/us-open).

Based on the present research, we determine: the competition format system follows the egalitarian theory of justice, that everyone is equal. We mean the following: the daily schedules ensure the (nearly) same rest time for the competitors, who are in the same branch and perhaps will play against each other – so the rest time difference is not a decisive factor, it is rather the struggle and the performance during a match. Of course, some match time can be dragged, it may be disadvantageous due to fatigue, who won later. At the end of a match day, the court schedule is prepared the same way, according to predefined and communicated conditions for everyone. What are these predefined, communicated and declared conditions and rules, which apply equally to all competitors? The research has revealed that the principle of equality corresponds to the daily schedule per branch. Those competitors play the same day, who won in the previous round and will play against each other in the next round (except for weather conditions, as an external condition: which can move a match to the next day). Can the competition format system be fully equal? The answer is: no. One of the main reason is that the matches are not played for time, but for points – thus besides the winner, we do not know the match time, they



are uncertain. In fact, match time can be very different, therefore the rest time is scarcely the same – if they start and finish a match at the same time (if they play in the same court, it is already impossible). However, the competitor's list and the draw are accessible and available to everyone, so in this approach equality exists. Competitors know the branch in advance, it can be counted who will or can play against whom in which round, etc. Equality can be observed from another side as well: everyone has to win the same number of matches for the victory, for the championship title (irrespective of seedings and world ranking positions). It is another question: because of the seedings and the current performance of the opponent, some competitor had "easier" way to reach the next round – but it depends on the random draw. It is not entirely accurate, that every competitor had to win a same number of matches, because the one in the qualification who qualified to the main draw had to win (before the main draw) 3 more matches – as a lucky loser (LL) it was enough to win 2 matches (but had to play 3 matches). Thus, due to the more matches for the qualifiers (Q), a disadvantage can be observed. However, the handicap system is not applied by the organizers, i.e. the disadvantages are not balanced, since would not be compatible with the telos of the competitive sport, such as the telos of the US Open. Therefore, there is no equality in all aspects regarding the number of matches (www.atpworldtour.com/en/tournaments/us-open).

We can also find the theory of meritocracy (in this case including the Aristotelian excellence) during the analysis of the competition format system: the competitors have got the court schedules (including the order of matches and the daypart: morning, afternoon or night session⁶) based on merit and excellence. Briefly mention (but not analyzed in detail): utilitarian perception (as a possible theory of justice) appear (Zimányi & Géczi, 2018a). A possible aspect by the organizers, is to generate economic benefits, we mean the broadcasting royalties, the seeded players, and players. The demand for watching matches is higher in case of players of better world ranking positions. According to utilitarianism, during the live broadcasting of their matches, more advertising can be sold at higher prices. There is a mix of competitive sport and show-business: approaching the end of the US Open, the 'road to the final', it is expected that the matches are played by players of better world ranking positions, to whom (understandably) more people are attracted. This is a factor that increases the viewership, thus also the economic benefits – preliminary research: on-site and the TV-viewers, which players' matches are demanded the most, define the advertising fees (Sterbenz & Géczi, 2016). This principle is favored by utilitarianism, therefore achieving the highest profit (Mill, 1979). However, this is just a secondary involvement in sport – the real value should not be forgotten, keep the telos and the value of the competitive sport, of the tennis, including the Grand Slam and the US Open. In order to achieve this, all basic conditions must be ensured, this is still an exclusion criterion.

At his issue, positive discrimination may be associated with meritocracy and with the Aristotelian excellence: i.e. at the court schedule the 'more excellent' and the competitor who achieved the better results are positively differentiated – evening matches not expected to have sunshine, the temperature is expected to be more pleasant, etc. Even so we cannot talk about consider positive discrimination as a classic 'Sandel principles', because in this case it should have fulfilled one of the following principles: promoting diversity, compensating past sins, and correcting preconceptions (Sandel, 2009). None of the above listed principles appeared. However, if we supplement the classic 'Sandel principles' and focus on the 'home players' (Zimányi & Géczi, 2018b), we can also consider it as an example of positive discrimination. Because the matches of these players (especially if they are randomly drawn against each other) are placed to the higher capacity tennis court (www.atpworldtour.com/en/ tournaments/us-open) – many home fans can see their matches, which has an identity-enhancing role as well (Földesiné, Gál & Dóczi, 2010).

During the competition format system, the schedule can vary flexibly – therefore the 'main matches' are not just determined meaning which seeded players are struggling against each other, but also the current form and

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⁶ At night session matches we can see economic interests in order to achieve a 'sold-out ticker' matches.

⁷ What we mean under 'main matches': the night session matches as well as so struggles followed by special attention –



performance can be crucial. For example, if it is a previously hopeless predetermined player, who is interested in approaching the final of the US Open – it awakes the attention of viewers and other competent people, so can get the chance to prove himself in a 'main match'.

The justice of the final result

The final result depends on the competitors and on their competent team as well as on the external conditions. The goal of the tennis competitors is: reaching always better results. Many tournament rounds complete, go through on the way to the final in the knock-out system. But it cannot succeed for everyone – in fact: there can be only one winner, so the organizers have to provide its value, to which the justice of the final result is a precondition. Of course, the telos must also be fulfilled at this issue, i.e. all the basic conditions must be ensured to prevail the telos of the sport, of the competitive tennis, including the Grand Slam and the US Open. This remains an exclusionary criterion – without this we cannot consider it as a just and fair final result. Similarly, the telos at the draw and at the competition format system prevailed, as the research confirmed: both cases corresponded to the essence of the US Open. In connection with the theories of justice, there are common features. As we can see it by considering the competition regulation: a player can only be a champion, if he/she is unbeaten, therefore wins all his/her matches (http://www.itftennis.com/officiating/rulebooks/grand-slams.aspx).

Here we can observe the evolutionist conceptual justice, since it must adapt to the circumstances, i.e. to the competition regulation: to reach the champion title, all opponents must be defeated (not every player must be defeated, because the player does not play everyone with everyone according to the competition regulation here is a knock-out system). The one who can best adapt to the external and internal circumstances, deserves (mostly) the victory. In every match, he/she needs to adapt better to the opponent, rather than vice versa. A competitor must perform in a way which is enough to the win against the current opponent. Although it is true: everyone performs as much as his/her opponent lets him to do that. If he can adapt better to the opponent's style, play and performance – thereby from the adaptive role can be an influencing role, which leads to victory.

This concept is meritocratic as well, because the achieved result makes someone the champion (so if he triumphed over every opponent). Only the performance on the tennis court counts – controlled (*ludus*) agontype game (Caillois, 1961), which can determine the above examined schedule and order of play. We are not discussing the qualification, but the qualified (Q, LL) players to the main draw are discussed. Meritocracy can also be observed in their case, they could play in the main draw based on their achievements (wins in the qualification) – at the lucky losers (LL), better world ranking position are also needed to have a chance to be in the main draw. At the US Open 2017 Men's Singles Tournament, two of them happened with two withdrawals from the main draw, so Mayer (ARG) and Lacko (SVK) could be a lucky loser (LL) and compete in the main draw. Lacko was beaten in the 1st round, counter to Mayer, who triumphed 2 wins in a way, that in the 1st round he could beat the 26th seeded competitor: Gasquet (FRA). Based on the reached results and on the merit (as the meritocracy) the opportunity to compete in the main draw as a lucky loser (LL) was just and fair (http://www.usopen.org/en_US/draws/index.html?promo=subnav).

Based on the reached results, we can describe a formula about the justice of the final result: $meritocracy_{main\ draw} > meritocracy_{qualifier\ (Q)} > meritocracy_{lucky\ loser\ (LL)} > meritocracy_{qualification\ competitor}$

Explaining: each competitor with his previous achieved results, they are rightly listed on the main draw (world ranking position), while some competitor qualified (Q) to the main draw by winning, the 'third group' is the lucky losers (LL), who won 2 matches in the qualification but lost in the qualification final, even so they could compete in the main draw, because they had better world ranking position and somebody withdrew. Besides the

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lucky losers (LL), the qualifying participants are mentioned, even if they have not reached the main draw, they have a 'prestigious' ranking of the world ranking list – which enabled them to 'at least' qualify for the qualification (these positions are worst, than who are in the main draw and had the highest world ranking positions).

The above described model is the same as Aristotle's (notion of) excellence and as the evolutionary adaptation. Therefore, these terms could also be used in the formula, instead of 'meritocracy'.

Aristotle's theory of justice also appears here: we have to distinguish and make a decision, which should be based on the excellence. This is somewhat different from the comparison with meritocracy. The latter refers to the achieved results on the tennis court, while excellence can be interpreted in several ways. If a competitor is 'more excellent' (based on the world ranking position), it does not mean that s/he can always win. In the view of this interpretation, in this case does the excellence apply to the world ranking position, or was he able to make a 'more excellent' performance? Does the practice follow theory? Has the 'more excellent' (better) world ranking position been confirmed? Therefore, that player wins the tournament title, who is the 'most excellent' in certain circumstances – this competitor deserves the most the victory. The final result is determined by the number of advances, therefore the number of wins, US Open does not have 'consolations draw' (http://www.usopen.org/en_US/draws/index.html?promo=subnav). Competitors cannot make a mistake, i.e. after one defeat the tournament ends, as opposed to tournaments with group rounds or round robin (at consolation draw, after one defeat we can continue the tournament, but we do not have any chance to reach the title). If somebody wants to be a champion (in our examined case: US Open champion), s/he must win all of his/her matches. If s/he fails, then the final or the 'nearest round' to the final can be the aspiration level besides to the future development.

With regards to the final result, the idea of egalitarianism does not match the telos of the competitive sport (including the US Open). The idea, that everyone starts on equal terms, can be welcome, although this is not necessarily so: not the same access exists for all to the 'tennis resources' around the world. Therefore, based on the principle of 'everyone's equal', it is not possible to make and determine the final result at the competitive sport. On the basis of something 'positive', we have to distinguish the winner: this 'positive' can be the above mentioned excellence or meritocracy. Consequently, during the final result not everyone will be equal – they can only be equal, if they achieve the same results (however, it depends on the performance and at the competitive tennis cannot be a draw final result). Positive discrimination should not appear either, because of the performance-based competitive sport, final result can only born by the merits, results, and optimal adaptation. Nobody can be in a better position at the final result, just to promote the diversity, or because someone is 'home player'. The results have to be achieved at the competition or tournament (in our case on the tennis court) and not at the 'green table'. Handicap does not meet the telos of the competitive sport -i.e. it is not possible to accept a fair final result in the competition, if one of the opponents is deliberately disadvantaged (without any reason). For example, could the final result be fair if one of the opponents (due to previous injury) had to win just one set? Or if a match does not start from 0:0, nevertheless would get advantage one of the 'disadvantaged' players (for example because of weaker and worse world ranking position)? Positive acceptance of these issues and questions of course, does not correspond to the telos of the competitive sport. As we can see, besides egalitarianism and positive discrimination, handicap cannot be interpreted either: therefore these theories of justice cannot play a significant role at the final result of a competitive sport event – so neither at the end result of the US Open (as the research confirms, these theories of justice did not play a role in the US Open 2017 Men's Singles).

Measurability is important for the final result and as the tennis 'is played for points' (for example not for time), so without any subjective considerations (contrary to the judges scoring), the outcome of a match, and the final result can be determined, therefore the champion title of the US Open as well. The goal is always the same: achieve better results and more victories in the knock-out system (in the optimal case: from the top 128 main



draw competitors only we stay at the end – the first step is to reach the main draw). However, we know: in competitive sports, where 'living organisms', individuals, teams struggle with each other, the 'transitivity principle' does not apply: for example if the 14th seeded competitor defeats the 19th seeded one, and this 19th seeded competitor defeats the 30th seeded one, it does not necessarily result in, that the 14th seeded competitor can always and under all circumstances defeats the 30th seeded competitor. In one match, anyone can be beaten – evolutionary adaptation and action effectiveness are needed to win (this study does not deal with the latter issue).

Conclusions: justice exists at the draw, at the competition format system, and at the final result

In conclusion, evolutionary adaptation is always present – it cannot be otherwise, because most of the factors are external conditions, which cannot be changed (or at most only in the long term). The starting point for all sport events is the official competition regulation – defined by the organizers: this is the 'alpha'. This must be met in all circumstances. Firstly we need to adapt to this, so it should be made accessible (the competition regulation) to everyone. Here only egalitarianism can be accepted on the basis of the telos, since we do not rule out anybody from the tournament. The telos of the competitive sport is, that the best players can take part in the competition, its starting point: get the original (unmodified) information about the competition for everyone. However, all the information may reach the affected people (competitors, his teams, national federations) but cannot qualify for himself with his performance to the main draw or to the qualification (based on meritocracy and Aristotelian excellence or positive discrimination, as received a wild card). Another question (the study does not examine in present circumstances): indeed, all competitors and all national federations get the information about the conditions, the competition regulation? So these bits of information will be reached? Or what about those players who are playing world-class, but they do not have an appropriate world ranking position to compete in a main draw (or in the qualification) and neither do they receive a wild card (WC)?

In the present case study we can conclude, that more theories of justice can appear. Therefore, truth exists – the question is: which justice theory want to explain in certain cases? Which is the most appropriate, and why? More theories of justice appear; the draw, the competition format system and the final result cannot be just meritocratic, Aristotelian excellence-based or egalitarian. Regarding the draw, excellence-based discrimination and meritocracy exist – in line with world ranking positions (based on these, the seeded competitors are also determined). At the draw, above all in the case of the non-seeded competitors, the principle of equality exists: a random draw decides which branch to go in the main draw. Furthermore, in relation to the draw, the principle of the positive discrimination (wild cards) and fairness (protected rankings) do not correspond to the telos. That is: if at the draw being brought favorable position for a home competitor (to give him a wild card), then we cannot talk about truth, i.e. we cannot apply these theories. During the research, we observed at the competition format system the principle of equality as far as possible: providing the same rest time for competitors on the same branch. However, positive discrimination (home competitors matches on higher capacity tennis courts), meritocracy and the Aristotelian excellence-based distinction (seeded competitors matches on higher capacity tennis courts as well) were represented (the mentioned utilitarianism can also be observed in this case). When determining the final result, we can see, that the key-question is the evolutionary adaptation, i.e. the better and more efficient compliance with the competition regulation: therefore, how can we defeat one after the other opponents. The final result was also just and fair according to the meritocracy and Aristotelian excellence-based theories: that one won and advanced, who achieved better results, and were more excellent in current matches (which did not depend on the world ranking positions). In the tournament (in our case on the tennis court) correspond to the telos only the performance counts. We have to defeat the current opponent, so the system is meritocratic, 'evolution-adaptive', and Aristotelian excellence-based distinctive. At the final result, the principle of equality does not correspond to the telos; therefore it would not be fair to determine the final result. Besides the equality, the positive discrimination cannot be accepted for the final result – it is not compatible with the



telos. Nobody can achieve better result just because we apply the 'Sandel principles' (Sandel, 2009) – or supplementing them: we give advantages to the home competitors.

As we found out during the research, none of the examined and accepted theories of justice contradict to the telos of competitive sports, including the telos and the competition regulation of the US Open: a defeat is not allowed during the tournament. With one defeat we cannot continue the competition only the winner goes through to the next round (except for the previously described lucky losers' case – however, it cannot be based on this because it depends on external conditions). At examining some items, we found such theories of justice which are excluded (exclusion criterion). So they do not conform to the telos of competitive sports and of the US Open: such as the positive discrimination of the draw, or the egalitarianism and the final result determining. At the competition format system, all in the study examined theories of justice are 'telos-compatible'. Therefore, these theories considered just and fair, and they are also applicable.

Conclusion: to the US Open's rules and the competition regulation must be adapted in all circumstances, this is a criteria – applying to the draw, the competition format system and the calculation and determination of the final result as well. As for exclusion criterion: it must be fulfilled to the (current determined) telos, in order to achieve quality and justness of the (sport) event – which applies together and also separately to the draw, the competition format system and to the determining of the final result.

Future research areas

In relation to justice, countless more questions may arise in the world of tennis. The problem still remains: which justice theory is accepted and why do we follow it? Further theories of justice can be investigated, for example Rawls's theory of justice (Rawls, 1971): can we make a just and fair decision about the draw, the competition format system and about the final result behind the 'veil of ignorance'? We can also analyze in detail libertarianism (Friedman, 1962), utilitarianism (Mill, 1979) and Kant's morality and motivation (Sandel, 2009) in the context of justice and sport events, too.

Confirmed by practical examples, we can analyze other sport events and competitions' justice of the draw, the competition format system and the final result. What are the differences, against such a competition, where can not a straight line knock-out system be used? Other final result would be born if there were group matches? I.e. there was a chance to make a mistake and one or more defeats can suffer to reach the championship title. In the same way, can we view the final result as just and fair? What is the difference between the basis of justice, the system format of round-robin tournament and main draw tournament? Another question is: what is the justice-based difference at the US Open 2017 Women's Singles tournament in the issue of the draw, the competition format system and of the final result? Or what about the justice and fairness of doubles? How can participating the doubles (men's women's, mix) and how to determine their rankings? How can we seed the pairs? How to draw them? Does the doubles' competition format system consider the singles matches? Are the final results of the doubles considered just and fair? Are the two best doubles-players always winning? Therefore: raise the best doubles-players the trophy at the end of the tournament?

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Received: 7 March 2019; Accepted: 17 April 2019





"More Practice-based Courses and Not Just a Load of Papers to Read": Youth Soccer Coaches Reflections on Coach Education Programs in Sweden

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation

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ABSTRACT

In Sweden, the formal soccer coach education programs are divided into different levels and are also divided into youth coaching and senior coaching. This paper focuses on youth soccer coaches and their reflections on coach education programs. In the background section the Swedish context is described, as well as current research on coaches' education and learning. The aim of the paper was to investigate youth soccer coaches' reflections on coach education programs and to analyse their reflections by using a cultural approach to learning. The empirical material of the paper derives from a web-based questionnaire, posing questions about competence, learning and stress. The coaches were also invited to reflect on the question "how do you believe that soccer associations can educate good coaches?" There were 369 responses, and these were analysed using qualitative content analysis. Results indicated reflections about Flexibility in time, place and content, Mentorship supporting informal learning, Demanding mandatory education and emolument, Education focusing on wholeness and Education being based in practice. The conclusion was that decentralization of education and development of coaches' contexts, abilities and motivation to critically analyse aims and contents of coach education programs are improvement areas for learning and coaching practices.

KEYWORDS

coaching, learning, coach education, youth sport, cultural learning theory

Introduction

Compared to countries such as the USA, Canada, and Great Britain, where sport is strongly connected to the school system, Sweden and the other Scandinavian countries have a culture of sport clubs based on voluntary leadership (Toftegard Stöckel, Strandbu, Solenes, Jörgensen & Fransson, 2010). The coaches in general perform their mission and participate in coach education programs on their leisure time. In the European Commission's (2014) Eurobarometer on sport and physical activity, 25% of Swedish respondents indicated that they gave their time to voluntary work in sport. This was the highest level in the European Union, which makes it relevant to set extra focus on the Swedish context. In 2014, almost 70% of Swedish children aged 7-14 years reported belonging to a sports club, and Sweden had approximately 755,000 voluntary trainers, coaches, leaders and



board members spread across 23,000 sports clubs (SSC, 2017). Soccer is the most common sport. Sport coaching in Sweden is based on voluntarism and there is a long tradition of voluntarism in Swedish civil society and children's and young people's sport is a central component of youth politics (Peterson, 2008). The European Commission (2007) highlighted sport as the most important social movement for health-enhancing physical activity, and identified it as an arena for promoting volunteerism and active citizenship. However, according to Peterson (2007) sport for children and youth are run by two central objectives: 'associaton nurturing', similar to the description by European Commission, and 'competition nurturing', described by Peterson (2007) as the sport logic itself focused on rules, goal achieving and results. In nurturing youth through sports this, according to Peterson (2007), leads to a conflictual relation between the missions. Echoing Habermas the conflictual relation could illustrate the struggle between democratic orientations and instrumental orders (Kennedy, 2015). Involvement in children's sports links closely to family life, and Wheeler (2011) and Green, Thurston, Vaage and Roberts (2015) highlighted how sports cultures are transmitted through families. A study by the Swedish Sports Confederation [SSC] (2004) showed that 80% of parents were involved in their own children's sports club.

The Swedish Football Association¹ is divided into 21 regional football associations, which locally administer almost 3,200 clubs with a total of 650,000 players (SSC, 2017). The formal coach education program is divided into different levels, and this is further divided into youth coaching and senior coaching (Swedish Football Association, 2017). The system is harmonised with The European Football Association (UEFA) standards, and the youth soccer system consists of three levels of course packages (C, B and UEFA elite youth A). Each year approximately 10 000 coaches participate in the coach education program.

Coach education and learning

A common view is that education is important for sustaining and developing quality of coaching (Mallett, Trudel, Lyle & Rynne, 2009; Cushion, Nelson, Armour, Lyle, Jones, Sandford & O'Callaghan, 2010; Bolter, Jones Petranek & Dorsch, 2017). Studies point out that trained coaches can have more positive impacts on young athletes compared with non-trained coaches regarding psychosocial well-being and sport longevity (Hedstrom & Gould, 2004; Sullivan, Paquette, Holt & Bloom, 2012). However, studies also point out that there are limitations in coach education programs abilities to improve coaches (Werthner & Trudel, 2006; Côté, 2006; Stoszkowski & Collins, 2014). Werthner and Trudel (2006) highlighted the two learning metaphors acquisition (formal education) and participation (learning through experience), and elucidated that learning to coach is a complicated and idiosyncratic process which involves formal and informal settings as well as coaches reflections. Hence, it should be acknowledged that coaches learning occur in non-formal, informal and cooperative learning settings as well as in formal coach education programs (Côté, 2006; Piggot, 2012; Camiré, Trudel & Forneris, 2014; Jones, Harris & Miles, 2009).

Côté (2006) and Stoszkowski & Collins (2014) argues on one hand that formal coach education risks focusing on knowledge transfer, missing dimensions of critical thinking, but on the other hand that formal coach education settings could be the only context where there is potential for coaches to develop critical thinking. In a study on female coaches' experiences of English coach education programs, Lewis, Roberts and Andrews (2015) found that there is often a gap between what is being provided in the programs and what the coaches find to be relevant knowledge. In some studies coaches express that formal education is of limited importance and courses often lack of relevant and practically useful knowledge (Nelson, Cushion & Potrac, 2013; Camiré, Trudel & Forneris, 2014). According to Stoder and Cushion (2014) coaches often base their reflections and actions on their existing life experience. It would though be rash to believe that coaches are uninterested in

¹ When the term 'association' is mentioned in the paper, it hereafter refers to the Swedish Football Association at a regional or national level.



learning and developing their coaching skills. Being a coach is practical, and coaches ask for support including mentorship and other methods to adapt to their specific contexts (Nelson, Cushion & Potrac, 2013; Camiré, Trudel & Forneris, 2014; Griffiths & Armour, 2012). This means that coaches ask for learning environments which supports their ongoing development as coaches, which is also acknowledged in a number of countries (Cassidy & Kidman, 2010; Jones, Harris & Miles, 2009). Cassidy and Kidman (2010) analysed official New Zealand documents about coach education policies and interviewed politicians involved in developing the documents. They came to the conclusion that there has been a paradigm shift and "...a move from an accredited and certified, standardized program, to an on-going professional development" (p. 320).

How can support structures for coach education and development be created? Cushion et al. (2010) highlighted that reflection, mentoring, and situated learning could structure learning processes and outcomes. Ryan and Sagas (2011) suggested supervision from managers to coaches and Gilbert and Trudel (2001) stated that so-called coaching pods could serve as a promoting structure for coaches in community-based sports associations. This means that "coaches of teams within similar athlete age groups could form a peer network and discuss coaching issues" (p. 32). Discussions above imply that coaches' learning is a social process (Lemyre, Trudel, Durand-Bush, 2007) that transcends formal educational structures and programs (Côté, 2006; Piggot, 2012). This could include mentorship, which is a contextualised and social process between an experienced person and a protégé, and can be considered as an investment in the whole person's growth (Jones, Harris & Miles, 2009). Mentorship is a complex concept and can be formal or informal. Jones, Harris and Miles (2009) highlight three fundamental mentoring relationships; responsive (with a great degree of freedom for the protégé), interactive (characterized by open conversation and mutuality) and directive (where the mentor has a set agenda), based on for instance context, knowledge and relations.

A cultural perspective on education and learning

The above discussion implies cultural perspectives on learning and development, where learning is considered as ongoing sociocultural processes. According to Light (2011), research on sport education is generally informed by either social theory (such as Foucault, Bourdieu or Giddens) or learning theory (constructivism or social constructivism). Light (2011) connects situated learning and Bourdieu, and points out the central role of practice in learning, while Barker-Ruchti, Barker, Rynne and Lee (2016) means that the reflexive aspect is an important distinction between cultural and sociological perspectives on socialisation or enculturation. Hodkinson, Biesta and James (2007) develop a cultural approach to learning based on Dewey, Bourdieu and communities of practice. One main idea is that participation in learning cultures is practical, embodied, and social where participants are shaped by and are shaping cultures (Biesta, 2011). In other words: learning through 'becoming' and becoming through learning (Barker-Ruchti, Barker, Rynne & Lee, 2016). However, people have different positions and dispositions and therefore also varying degrees of power to change cultures. Learning cultures are always based on value judgements of which type of knowledge that is desired in the current context (Biesta, 2011). People involved in education learn something for a reason and from someone, which means that educational cultures are framed by particular purposes (Biesta, 2011). This means that a cultural perspective begins with the normative question of what is aimed to achieve (often multiple aims) (Biesta, 2011). Biesta (2009, 2011) explains that education generally performs three interrelated functions: qualification, socialization and subjectification, which affect each other. Qualification refers to knowledge, skills, and understanding; socialization refers to becoming a member of particular social, cultural, and political orders; and subjectification refers to become independent in the current culture. This cultural approach aligns with Jones and Thomas' (2015) notions of scaffolding, where the authors as well as Barker-Ruchti, Barker, Rynne and Lee (2016) highlight that learning processes at micro levels also involves macro- and meso levels.



The rationale and aim of the paper

The rationale of this paper is two-fold. Firstly, Quennerstedt, Öhman and Armour (2014) argue that explicit focus on learning theory often has played a limited role in research on physical education and sports. They state "Learning is at the heart of pedagogy, and PE teachers as well as sport coaches are essentially pedagogues" (p. 886). Linking theory and practice together emphasize the gap between research, policy and practical implications (Quennerstedt, Öhman & Armour, 2014; Gilbert & Trudel, 2004; Kirk & Haerns, 2014; Jones, Morgan & Harris, 2012). Secondly, Cushion, Nelson, Armour, Lyle, Jones, Sandford and O'Callagan (2010) point out that there is a gap in research about coaches teaching and learning preferences and needs. Therefore, the aim of the paper is to investigate youth soccer coaches' reflections on coach education programs and to analyse their reflections by using a cultural approach to learning.

Method

This paper analysed responses to an open-ended qualitative question posed as part of a larger study, which used an online questionnaire to investigate experiences of coaching, knowledge, and stress among Swedish voluntary youth soccer coaches. The questionnaire contained 68 multiple choice questions and two open-ended questions. It was based on previous research about coaches perceived competence, stress and education. Coaches were selected through systematic sampling. The starting point for sampling was a list of soccer clubs detailed at www.idrottonline.se where the majority of the Swedish sports clubs are registered. The Swedish Football Association is divided into 21 regional football associations. From each regional association, every 10th club was selected. The first club on the list was randomly chosen and after that every 10th club was selected. In each club, the head coach of every youth team (6-18 years of age) was invited to participate, which meant that more than one coach could represent one club.

Due to the underrepresentation of women in the sample, if there were two or more coaches for a team and one coach was female, then she was selected. In total, 1514 coaches received the questionnaire via email. The email contained a link to the database Education Survey Automation Suite (EvaSys) on-line system. In addition, information conforming to Swedish law concerning the ethical conduct of research (SFS, 2008) was provided emphasizing that participation in the research study was voluntary, and that participants were free to withdraw at any time without giving a reason why. The law also stresses confidentiality, which means that unauthorised persons have no access to the data. After two weeks, a follow-up reminder was sent, and 764 coaches (50.5% of the sample, 78.5% men and 21.5% women) responded to the online questionnaire. 369 coaches answered the one question that formed the basis for this paper: namely (translated from Swedish), "how do you believe that soccer associations can educate good coaches?" The starting point of the analysis was qualitative content analysis (QCA) (Graneheim & Lundman, 2004; Schreier, 2012) In general; focus in content analysis may be on manifest or latent content (Graneheim & Lundman, 2004; Schreier, 2012). According to Schreier (2012), QCA is utilized when the content is less obvious and interpretation is needed, i.e., latent content. The starting point in this paper is a simple concept-driven coding frame that was constructed as described by Schreier (2012). When constructing the codes, the requirements of unidimensionality, mutual exclusiveness and exhaustiveness were considered. This concept contained two main codes: Form and Content. When these had been constructed, the material was analysed with focus on content. This led to 21 subcategories. The final step in analysis was to create main categories with the starting point in the subcategories. Five main categories were identified that were connected to the two main codes. The process of analysis was pending back and forth between parts and the whole. The final step of analysis was to bring context, theory and coach's reflections together in a synthesis.



Results

The results will be presented with the starting point in the two main-codes Form and Content, and every main category will be described with quotations.

Form

When writing about the form of coach education three main categories appeared: *Flexibility in time, place and content, Mentorship supporting informal learning*, and *Demanding mandatory education and emolument*.

Flexibility in time, place and content

The coaches described flexibility as an important factor in coach education. This was expressed from different perspectives. One main concern was that weekend courses (which are common in a Swedish context) were time consuming and especially taking time from family life. Other forms were needed to be considered; "By arranging courses on other days/times. Everything doesn't need to be full day sessions at weekends." One solution to this was shorter, but more specialized, courses; "More courses focused on certain elements, to reduce the number of days, one-day courses in different specific subjects". This could for instance be on-going development through seminars on different topics, lectures, and meetings with other coaches.

Information technology was also mentioned to increase flexibility: "Interactive courses and tools. This means that you can study whenever you have the possibility", and "Online support would be good to develop, such as apps on your phone or iPad, but also from the computer at home. There is some, but this could be developed". It was also suggested that more courses should be organized in clubs, since this would increase flexibility; "I believe that the clubs must increase their short internal training and then perhaps we should have time to participate." Cooperation with other clubs was also highlighted. One coach sums up; "Education is good. Many do, however, have problems to find time, since they are coaches in addition to their regular job. It would be good if the clubs had internal training, perhaps in cooperation with clubs nearby. This would facilitate the time compared to travelling to courses". Flexibility was also mentioned in terms individualization of content, based on individuals: "That you have a course leader who has long experience of coaching and can meet individual coaches at their level of needs and knowledge, and also individualization based on functions"; "Courses for different leader functions, not only for coaches".

In summary, the prominent concern was about time-consuming weekend courses and ways to deal with this. The coaches suggested flexibility in terms of time, place and technical solutions. The coaches also stressed flexibility and individualization of content based on needs and functions in the club.

Mentorship supporting informal learning

The coaches mentioned different ways to support learning beyond formal education programs from a more able person or a *mentor*. One aspect was a control and support function, with overall responsibility: "Control and support from the club concerning goals, methods, results and feedback. This sets high demands on every club and requires a manager with overall responsibility and mandate to take actions." There was also a wish for coach educators to visit the clubs: "I wish that coach educators could come to the clubs and for instance observe a training session and then have a conversation about it to receive feedback". A common opinion was the idea of mentorship: "It would be useful to have some support from a more experienced coach—some kind of mentorship". Other coaches already had that experience: "Those who are interested in coach leadership should have a mentor to whom the coaches can turn to when they have concerns. I have tried to share my experiences as a coach for several years, and this has been positively met by less experienced coaches". The coaches also emphasized the importance of using civil competence: "There are several coaches on our team, and the best



coach is an upper secondary teacher who knows how to meet youth. The parents appreciate his job". Other coaches emphasized their own competence; "I have more use of my bachelor degree in public health education than my coach education".

In summary, the coaches highlighted varying sources of learning beyond formal coach education programs. Mentorship was commonly mentioned, and thoughts about having a manager in the club and visiting coach educators from associations. Finally, the use of civil competence or learning trajectories was mentioned.

Demanding mandatory education and emolument

The coaches acknowledged the importance of formal coach education programs initiated by the soccer association, and several had thoughts about how to increase the coaches' participation. Coach education is recommended, but not mandatory, and the coaches highlighted this: "Before one is allowed to be responsible for a youth team, one should have had the insight in how Swedish soccer manages soccer for children and youth, i.e., a four-hour course." One coach wished to take it further; "Proper education (such as a license) should be required to be a coach." Other coaches were more focused on motivational factors: "See the individual and encourage those who have commitment but perhaps not the knowledge".

The coaches also mentioned financial incentive: "I believe that every club in Sweden should put much more effort into the coaches. Give them salary for their job and then make demands on participation in certain courses during their time as coaches. In that way we will have more competent coaches and players in the long run." Others suggested that the recruitment of young coaches/players need to be developed: "Parallel with their player education, teenage players should be taught basic coaching principles, and perhaps more young players can be involved in a children's team as assistant coaches", and "Early recruitment of youth who can't play themselves but are passionate for soccer. Engage them in small clubs and empower them".

In summary, the coaches stressed the importance of formal coaching education. This can be summarized in demands on mandatory courses, financial incitements, and recruitment/education of youth players.

Content

When coaches wrote about content of coach education, two main categories emerged: *Education focusing on wholeness* and *Education being based in practice*.

Education focusing on wholeness

There were critical comments stressing that too much emphasis was on technical soccer skills in coach education programs. This was considered being of secondary importance because many coaches had been playing soccer for many years: "The children and the team are the focus. Then game understanding followed by individual and technical skills". A holistic focus was requested. The coaches wrote about the meaning of policy: "Give distinct directions in courses concerning soccer association rules and guidelines. Follow up that everybody is coaching according to their club policy." The question about balance between competition and fun in youth soccer was raised: "Courses and above all a unified concept of how grassroots and elite soccer should be ran. The million dollar question is combining these".

Secondly, coaches emphasized that education should focus on player's development. There was a concern that the best players receive the most attention: "To point out at every course the importance that coach's role is to facilitate children's development, and to foster the best soccer players possible while focusing on every single individual". Another reflection was that education should focus more on social sciences (such as psychology, pedagogy and motivation climate): "Educate much more in teaching and learning processes: children and youth and their different learning processes". There was an emphasis on the holistic focus on soccer and youth: "It



would be valuable if coaches are offered quality courses in team building, physical, and psychological development of youth including positive coaching and mental training".

In summary, coaches requested a more holistic oriented focus in coach education programs. Thoughts about education about policy programs, player development, social aspects and game understanding was highlighted, and there were critical voices meaning that too much emphasis was on technical skills in today's educational programs.

Education being based in practice

There were critical reflections meaning that coach education programs are too theoretical. Coaches wished for more practical elements: "More practice-based courses and not just a load of papers to read". There were experiences of programs when practical elements were present: "The best courses have a competent and experienced coach who has coached a group of players. It has had specific themes such as passing and receiving the ball. The coach also has presented aims and specific drills, things to consider and especially important details. Such a course offers much more profound knowledge than gazing at a PowerPoint with the heading *Passing and receiving the ball*". There were also suggestions about internship as a part of education programs: "Coaches can prepare and manage training sessions via internship in two different levels (grass root and elite) and with different age groups". The coaches also reflected on an exchange of experiences between coaches. One coach explained; "Above all, use competences in the club including coach meetings and discussions about leadership. What has worked/not worked experiences and so on".

There were also reflections on exchange between clubs: "I believe that a functioning network is really important. That coaches within and between clubs meet and discuss, have Facebook-groups, and so on." In addition, there were also thoughts about blue printing and learn from other sports: "We should cross boarders to other sports and learn from them. I feel that we sometimes acclaim ourselves too much. We already know everything". A common thought was that the soccer association should be closer to everyday coaching, and it was suggested that educators should visit the clubs: "The association should visit more often and initiate courses based on their observations". This could also involve practical elements: "More courses in the club supported by competent instructors from the association". Finally, there was critique that coach educators need to improve their skills: "The instructors at coaching courses must also develop. Soccer is not the same today as it used to be".

In summary, the coaches advocated decentralized and local programs based on experience and the direct needs of the clubs, i.e., a more practical focus. This was expressed as more practical focused education, internship, opportunities for exchange between coaches, local education in cooperation with football associations, and competent and updated coach educators: education being based in practice.

Discussion

The aim of this paper was to investigate youth soccer coaches' comments on coach education programs and coach development and analyzing this using a cultural approach to learning. The coaches emphasized flexibility, mentorship, demands, focus on holism and focus on practice.

The paper has limitations. From the total sample of 764 coaches only 369 participated in the open ended question about coach education, which decreases validity. The use of quotations enhanced the study's credibility (Westling Allodi, 2002), but since the instrument was a web-based and anonymous questionnaire it was not possible to identify quotations on an individual level. The coaches' responses might also have been affected by their varying abilities to express their thoughts in writing or by their different interpretations of the specific open question. Presumably, the coaches made a selection of thoughts that were plausible to reveal in this context from their perspective (Polit & Beck, 2004). One should also consider that the question is based on soccer coaches' perspectives whereas other sports and activities involve voluntary coach responses and might involve



other types of answers. All quotations were translated from Swedish, which risks losing some nuance. By doing interviews, the responses could have been more in depth, comparing to the broader image presented by 369 written reflections. The results should be viewed in the light of these limitations. In qualitative analysis it is plausible to consider transferability, which is "the range and limitations for application of the study findings, beyond the context in which the study was done" (Malterud, 2001, p.484), rather than generalization. In current study transferability to other similar contexts based on voluntary coaches should be relevant, since the study is based on theory, other similar international studies and a systematic sampling of participants.

Learning cultures are mutually shaping and being shaped by participants (Biesta, 2011) and *Flexibility in time, place and content* can be seen in the light of Sweden having a culture of voluntary leadership connected to clubs (Toftegaard Stöckel et al., 2010), and traditionally education has taken place on weekends. The coaches suggested flexibility in terms of time, place and technical solutions. The coaches also stressed flexibility and individualization of content based on needs and functions in the club. In a study by Wiersma and Sherman (2005), having a limited amount of time to volunteer, especially when having children of their own, was described as stressful by coaches. Comments on flexibility links to family life and stress alongside the mission as a coach (Wheeler, 2011; Green et al., 2015).

In accordance with Camiré, Trudel and Forneris, (2014), Nelson, Cushion & Potrac, (2013), Griffiths and Armour, (2012) and Hertting and Kostenius, (2016), the categories *Mentorship supporting informal learning* and *Education being based in practice* support the idea of sources of learning beyond formal coach education programs. As Jones, Harris & Miles (2009) points out, the coaches elucidate that mentorship could be in different constellations and contexts, for instance an experienced coach from the club or an official coach educator, which affects the relationship between mentor and protégé. This aligns with the notion of education as socialization, or learning through becoming (Biesta, 2009, 2011; Barker-Ruchti, Barker, Rynne & Lee, 2016).

Coaches wished for *Education focusing on wholeness* (such as policy programs and social aspects) in contrast to what was perceived as too much emphasis on technical skills in educational programs, which expresses the conflictual relation between the double purposes of youth sport (Peterson, 2007). As Biesta (2011) elucidates, education often have multiple aims, based on sometimes conflicting value judgements. Nevertheless, coaches stressed the importance of formal coach education and there was a wish for mandatory courses and financial incitements for coaches, which again can be seen as an expression of the Swedish context, based on voluntarism (Toftegaard Stöckel et al., 2010), where paid coaches are rare within youth football and education is recommended but not mandatory. The qualification aspect was considered as important, but aims and content was contested by the coaches.

To summarize, a decentralized, flexible, practice-based and mandatory education, where mentors can play a role was proposed by the coaches. The coaches focused primarily on coach development either in informal, non-formal or formal settings. Echoing Biesta (2011), soccer is a practical, embodied, and social activity: a cultural expression which is shaping people and is also being shaped by people, based on power positions and dispositions. There is a comprehensive formal coach education system within Swedish soccer, but coach development is largely informal and also non-formal (Camiré, Trudel & Forneris, 2014; Lemyre, Trudel & Durand-Bush, 2007; Cushion et. al., 2010; Cotë, 2006). As mentioned, coach education is strongly recommended in youth soccer in Sweden but not mandatory when coaching children and coach training often take place in the clubs. The specific club context serves as a central socialization arena for coaches, and a local club culture emerges including former experiences as a player, local club guidelines, common club events, and informal coach meetings in or between teams in the club. Therefore, it makes sense that coaches want qualification to be part of the informal settings surrounding the club. Coaches requested a contextualized learning environment which could be met by for instance Gilbert's and Trudel's (2001) notion of coaching pods or other types of contextualised mentoring programs (Jones, Harris & Miles, 2009).



Corresponding to Biesta (2009, 2011) the educational aims for youth sport is basically manifold, including what Peterson (2007) refers to as association and competition nurturing. Coaches were questioning current orders of education programs as being too technical, which correspond to the need for critical thinking within coach education (Lewis, Roberts & Andrews, 2015; Stoszkowski & Collins, 2014). The qualification aspect becomes relevant to discuss and problematize in policy and education of youth soccer coaches. This could help to bridge the gap between offers in coach education and relevant knowledge for coaches (Lewis, Roberts & Andrews, 2015).

Conclusion

In conclusion, decentralization of education and development of coaches' contexts, abilities and motivation and to critically analyse aims and contents of coach education programs are areas for improvement in coach education and learning in youth soccer.

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Received: 3 January 2019; Accepted: 14 June 2019





eSports Evolution in Football Game Series

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
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ABSTRACT

Sport used to be practiced and watched only live. Over time, it started to be broadcast by the radio or television. The development of sport on the Internet has led to the emergence of eSports and professionalization of virtual sports competitions. For some gamers playing computer games has turned into competition and later into the professionalization of the game. This paper explores the topic of electronic sports and virtual competition. It discusses eSports and the accompanying behaviors and practices. Authors delivered taxonomy of video game types, game modes and current phenomenon of both online and land-based tournaments as well eSports leagues. The paper also illustrates how gamers are preparing themselves for tournaments and a crucial role of gamers' motivation. Authors present the FIFA football games series and its eSports application. The adopted research method allowed to obtain answers from n=452 gamers. Results show that 60% of gamers have been spending more than 7 hours a week playing games. More than half of gamers have been playing for more than ten years. Most players play in games because it is considered as a hobby. Most of the gamers consider eSports as a sport. Most of the players are also spectators, who had watched in streaming at least one eSports tournament We find that FIFA game series has an extensive eSports platform and filled the gap by exploring it. Gamers usually play 40 games each weekend in FIFA eSports league but casual eSports gamers and spectators rarely take part in land-based tournaments.

KEYWORDS

eSports, football game series, video games, FIFA, gamers

Introduction

eSports, also known as electronic sport, is a form of competition between players in video games (Hamari & Keronen, 2017). The definition characterizes eSports as a form of competition (both professional and amateur) in video games, most often coordinated by special leagues, lists and tables, and tournaments in which players play in teams (or individually) or other organizations sponsored by specific business entities (Hamari & Sjöblom, 2017).

eSports is one of the fastest growing industries and attracts more and more visitors every year, both players and organizations that see it as a potential for their own growth (Adamus, 2012). The development of the whole gaming industry may be confirmed by the number of players. While in 1995 there were 100 million players, in 2018 we are talking about 2.36 billion players (Newzoo, 2018b). In 2014, there were 390 million eSports spectators (Newzoo, 2018a), 215 million of whom were not playing, but only watching.



The goal of this paper is to explore aspects of behavior and motivation of eSports gamers in football game series. In literature, there are studies about the eSports behavior of gamers playing other games. However, this study is the first attempt to study eSports gamers in the example of FIFA game series. There are three key points to be learned from this study. First is the experience and motivation of gamers playing video games. Second is an eSports recognition among studied group. Third is an eSports application in FIFA game series.

The paper is organized as follows. Section 2 contains a taxonomy of video games and game modes. In this section we also introduce to eSports leagues and to FIFA game series. Section 3 includes the research method and hypotheses development, while section 4 presents the data and quantitative results. In section 5, the authors highlight the contribution of the research, discuss its limitations and, finally, draw conclusions about the results and propose possible future research avenues.

eSports taxonomy

This section contains taxonomy of video game types, game modes, tournaments and eSports leagues and football game series. Authors provide this taxonomy to show how eSports evolved from computer games. We understand eSports as evolution from computer games and games type to tournaments and eSports leagues. First, we describe popular video game types and game modes. Then we explore area of tournaments and eSports league, which base on different games and game modes. We choose FIFA game series, to show extensive application of tournaments and eSports leagues on this example.

Video games types

Fighting games are a video game genre based around interpersonal contact between characters controlled by players or by computer (artificial intelligence). They fight until they defeat their opponents, or the time expires. The game usually takes the form of a fist duel, but the player characters can also have weapons or use special skills (Lu et al., 2013). First-Person Shooter (FPS) games, as the name suggests, allow a player to play a role and see the game from the first-person perspective – the player experiences the action through the eyes of the protagonist. The player does not see his whole character on the screen but only his or her character's hands that hold a weapon or other object (Curley, Nausha, Slocum, & Lombardi, 2016).

Real-Time Strategy (RTS) game is a form of strategy game. In such games, the player practices his ability to think analytically and make the right decisions to achieve his goals (Buro & Churchill, 2012). The RTS games are not turn-based, as opposed to most of strategic games, which means that each player can move independently of the opponent. In RTS games there are only two players participating in the duel and control the whole game on the screen. Very similar game genre is Multiplayer Online Battle Arena (MOBA), however, the difference is that more players take part in the game and each of them controls one character who competes versus another team of players (Georgen, 2015).

Sports video games genre is a fairly wide category of games, which includes many types of games. One of them are sport simulators, such as football and basketball simulators (Anderson & Carnagey, 2009). Another type of sports game are sport management games, for example the management of a football club (Kretschmann, 2012). There are also sports games which are highly unrealistic, use unrealistic graphical scale or simplified physics for ease of play, like for example, car races in special vehicles in the game called Need for Speed. Sports games are produced either for computers (mainly sport management games) or for game consoles (simulators).



Game modes

Offline mode means that the player does not need to be connected to the Internet to play the game. Most often there is an offline campaign or a game story available, for example war campaign in Call of Duty game series or Manager Career mode in FIFA.

The online mode allows players to play over the Internet with people from all over the world. Online gaming is possible with servers. The location of servers usually depends on the region, for example in the League of Legends the servers are available from Western Europe and North America (Donaldson, 2017). A common problem with Internet gaming is lag, i.e. delays caused, for example, by a poor Internet connection. In addition, during an online game play it is not always possible to catch players who cheat, the so-called cheaters (Carter & Gibbs, 2013).

LAN mode, i.e. in the local Internet network. The pattern of play is practically the same as in online gaming, but with one major difference – all players have to be connected to the same network. LAN is especially popular in the biggest eSports tournaments (Witkowski, 2012). They are organized in such a way that players meet in the venue of the tournament and compete with each other on previously prepared computer stations which eliminates the possibility of cheating.

The spectator mode is one that allows to watch the game, not play it (Karhulahti, 2016). The observation can be carried out from the perspective of one of the players or from different sites on the map, giving the spectators a more thorough experience. This mode is a particularly popular solution for eSports tournaments. Players see the game on their screens from their own perspective and the viewers watch it on separate screens from all different angles.

Tournaments and eSports leagues

eSports tournaments are usually held live with the participation of the spectators, referees or official representatives who ensure that players do not cheat. In the case of large tournaments in which there is a longer elimination process sometimes the tournaments are conducted online, and the winners of the qualifiers move to the finals.

The largest tournaments, such as Dreamhack, World Cyber Games, Major League Gaming Tournament or Intel Extreme Masters, are projects focused not only on the players but also on the audience (Jenny et al., 2018). These events highly resemble sporting contests (Heere, 2018; Holden, Kaburakis, & Rodenberg, 2017). Participants need to get a ticket to get in, and the spectators are seated in the auditorium, in front of which there is a stage with player positions. Their progress in the game is displayed on large monitors, most often in the spectator mode which allows for a complex game play experience (Lee & Schoenstedt, 2011). Usually such tournaments last many hours, sometimes even several days. Therefore, in addition to following the game itself, the fans can participate in various side events like competitions or mini-tournaments organized by the sponsors, they can spend time in entertainment zones or grab a bite in catering section. The fans who are not able to enter the tournament in person also have the possibility to watch the tournament (Hilvert-Bruce, Neill, Sjöblom, & Hamari, 2018) as such events are often streamed live on YouTube or Twitch internet platforms (Sjöblom & Hamari, 2017).

Playing for victory and recognition is very important for most players (Brown, Billings, Murphy, & Puesan, 2018). In addition, the winner, or a high position holder, either an individual player or a whole team, is rewarded with a money prize. The larger the tournament and the more sponsors involved, the higher the prizes. The stakes are raising with the growing interest in virtual sport, which attracts more and more people (Davidovici-Nora & Myriam, 2017). The prize pool for the Dota 2 International 2017 tournament was as much as \$24 million. In 2012, the same tournament had a prize pool of \$10.9 million (Drachen et al., 2014). The business potential of electronic sports has attracted many sponsors, who often co-finance the tournament prizes (Block et al., 2018).



They also take advantage of the presence of many computer game enthusiasts who naturally become prospective buyers of their products. That is why numerous stalls of companies that are somehow related to a given tournament or eSports event can be found at the venues where the tournaments are held. Most often they are companies producing computer hardware or software, but also companies from the energy drinks sector, for example.

Apart from annual tournaments which last for a limited period of time, eSports leagues are also popular. They usually take the form of a regular sports league, where all the players play a match against each other within a league, and the results are recorded in tables (Hallmann & Giel, 2018). The American soccer league, the Major League Soccer (MLS), is a good example of that. Competition on a real football pitch is accompanied by the competition taking place on virtual stadiums. The MLS authorities came up with the idea that each team should put up its own player to compete for a virtual championship in the eMLS league (https://www.mlssoccer.com/eSports/emls/2018). Subsequent league events and matches are often streamed live to fans via online platforms such as Twitch.

The approach towards electronic sport began to change together with its development (Martoncik, 2015; Seo, 2016). Something that used to be merely entertainment started to become a way of life (Macey & Hamari, 2018; Salo, 2017). The players started to unite (Reer & Krämer, 2018) and put together their first teams. Shortly, experts and organizations joined in and started to form professional teams (Karhulahti, 2017) initially limited to a specific game, and later for many games on different platforms (Funk, Pizzo, & Baker, 2018).

The players' task is to prepare themselves for the competition as well as they can and to achieve the highest possible final result (Drachen et al., 2014). They train for several hours a day (Bányai, Griffiths, Király, & Demetrovics, 2019). In addition to developing their in-game skills and collaboration with other teammates, and there is a strong emphasis on tactics and mental preparation for the competitions (Kari & Karhulahti, 2016; Ruvalcaba, Shulze, Kim, Berzenski, & Otten, 2018). This is supervised by the professional experts, like coaches, who analyze the game of the opponents, watch the tactics at the tournaments, and tell the players what their next move should be (Lipovaya et al., 2018). A common practice in the case of multi-person teams is sharing an apartment. The players live and spend their time together so that they can reach a higher level of communication outside the virtual world (Stokes & Williams, 2018). What is especially important in the eSports process are people responsible for the organization and management of the team and sponsors. The sponsors support the players, hoping for their victory, which they hope will also translate into the economic success of their enterprises (Hope, 2014). Most often, the sponsors of the teams are computer hardware and software companies (Seo, 2013). They provide their players with equipment of the highest possible quality so that the participants can best prepare for the tournament game playing. It is not uncommon that the players also receive a monthly salary or financial bonuses for good results (Brock, 2017).

Football game series

The two series Pro Evolution Soccer (PES) and FIFA (named after the Fédération Internationale de Football Association) are immediately considered when referring to football games or football simulators. These games that have completely dominated the virtual football market and are often presented as competitors. Each series has its own faithful fans who praise it while pointing out faults in the second game. PES supporters use an expanded tactical side and a real-life behavior on a virtual pitch as an argument for the superiority of this game play experience (Kayali & Purgathofer, 2008), while FIFA players see the greatest advantages in the licenses the game holds, which allow the players to use original names or club costumes, so that the game uncannily resembles the real football matches. An advantage of the PES series was its license to reproduce the UEFA Champions League, but it was taken over by FIFA and it will be available starting from FIFA 19 series.



FIFA is a sports video game which has been released every year since 1993. FIFA is a football simulator and its name is derived directly from the name of the World Football Federation – FIFA. The publisher of the game is Electronic Arts. FIFA is a football simulator of choice for a great number of players because of its realism (Stein, Mitgutsch, & Consalvo, 2013). The game uses advanced technology, so that the game play and appearance of the players are very similar to real football matches (Markovits & Green, 2017). An additional advantage of FIFA games series is having original licenses to use real club names, costumes, coats of arms, or player names.

As the next FIFA games were being created, the game modes available for players within a given series changed, too. In the first releases, single player modes dominated. Over time, with the development of technology and the Internet, more attention has been paid to multiplayer modes (Heckmann & Furini, 2018). In FIFA18, one can play as many as eleven game modes. FIFA Ultimate Team is the most popular mode in the FIFA game series. It belongs to the online mode category, i.e. it requires an Internet connection. Each player creates their own club, under their own name, and chooses outfits for the virtual players, the stadium and the team from all the players available in the game.

The FUT Champions is a mode within the Ultimate Team in which a player qualifies for a special online league to be played during the weekend. The qualification takes the form of a tournament in which the player has to win four consecutive matches to secure a place in the weekend league. He uses for this purpose his players from the Ultimate Team. Usually before the weekend league the player can qualify for one of the two tournaments held, in both of which he can have a few attempts. After winning the tournament, the player gets a pass to the weekend league. In the FIFA18 edition the weekend league lasts from Friday to Sunday, in the FIFA17 edition it was only Saturday and Sunday. During one weekend, the players' task is to play up to 40 matches with other qualified players. The more wins there are, the higher the place in the weekly and monthly ranking. The ranking includes award levels determined by the number of wins in a given weekend league. FUT Champions rewards are the most impressive of all in the Ultimate Team, which is why this mode is very popular with the players.

The FUT Champions have had a significant impact on playing the tournaments to gain the best FIFA player in the world. Until this mode came out, local tournaments and qualifiers were organized to select a group of best players. The weekly and monthly rankings mentioned above have solved this problem. It is the game publisher who decides which months are designated for regional tournaments. This means that the top 64 players of the PS4 and the top 64 players of the Xbox One will take part in a regional tournament. These matches are held at a venue and not via the Internet. The matches are played in a special mode, created only for the purpose of the tournament. Having at their disposal all the players in the game the video game players select their teams, and the game takes place by means of a local LAN connection with a large screen to enable the audience to see the game.

Together with the development of the series and the release of new editions, the first attempts to organize tournaments for players began. Initially, they were small local tournaments, but with a growing interest in the series, the publishers started to think about larger, global tournaments. In 2004, the first edition of the FIFA Interactive World Cup took place. It can be described as the FIFA World Cup (Jenny, Manning, Keiper, & Olrich, 2017). Since then, virtual football championships have been held every year and it is the most important tournament of the year for players (https://www.fifa.com/fifaeworldcup/index.html). The FUT Champions mode helped to organize the virtual championships, allowing for an efficient conduct of the first stages of the qualifying tournaments. The tournaments are held around the world and are live events with the participation of players and crowds of spectators. From each of the tournaments a certain number of players moves to the next round, and then they meet in the grand finale.

Apart from the biggest tournament, smaller competitions are still organized, both for professionals as well as for amateur players. Due to the fact that the eSports attracts more and more attention and interest from potential sponsors, sometimes they also organize competitions for the video game players. The competitions sometimes



take the form of national championships (Parshakov & Zavertiaeva, 2018). Often, along with the big tournaments or eSports events, tournaments for fans are also held. The winners are most often awarded computer equipment and accessories. Also, different store chains frequently organize tournaments, especially on the occasion of a new game series coming out. The winners are usually rewarded a new edition of a game.

Research method and hypotheses development

Although it has been around for some time now, eSports is a relatively new phenomenon which is only just beginning to attract attention. The issues discussed in this paper cannot be said to be definitely formed, solid and unchanging because the world of eSports is very dynamic and is constantly developing in various aspects. The subject of the present research is not limited only to eSports and its definition, but it also concerns the very subject of game playing. With all this in mind, the aim of this paper was to shed a light on what eSports is, and present certain notions and phenomena connected with it (Seo & Jung, 2016). From among a variety of video games available on the market, the paper mostly describes football simulator – a series of FIFA games. The paper can be of interest to the players, both those who have had some experience with the series of FIFA games and those who are strangers to it. The purpose of the paper is to examine and present the characteristics of players – why they play and how often they do so, and whether apart from playing they watch eSports tournaments and try to be present in the virtual word, too. Additionally, the questions of whether the players are familiar with the concepts related to eSports, as well as various practices and aspects closely connected with it were examined in this paper.

Research questions (RQ) are as follows:

- RQ1 Why, how long and how frequently do players play the games?
- RQ2 Is the concept of eSports known to players and do they consider electronic sport to be a sport?
- RQ3 Are players familiar with the FIFA football games series and its eSports application?

The first research question concerns the group under investigation, i.e. the video game players. To know the study group characteristics, it is necessary to obtain answers to questions related to the frequency of their playing, as well as the experience in game playing. Some subsequent opinions will depend on these factors. Players who play frequently and those who play sporadically see things differently (Nielsen & Karhulahti, 2017). This question also concerns the motivation of players, that can help to understand why they play the games. For some of them, game playing is just for fun, for others it can be more than that. Some may combine game playing with emotions, while others perceive playing in a completely different way and approach it differently, too.

The second research question is designed to check how much players know about the concept of eSports. It is crucial to see whether they are familiar with the basic notions and aspects which are directly linked to electronic sport. The question also helps to examine players' opinions on how they perceive eSports in the context of other sports (Parry, 2019). Professional management, tournament streaming and wide media coverage all suggest that eSports should be taken seriously. It may be interesting to see if these factors, together with keen competition between players, make electronic sport a sport.

The third research question concerns the FIFA football series. It provides information on whether players are familiar with the whole series or with some of the individual games in the series. Additionally, the purpose of this question is to find out if the respondents play any specific editions, or maybe they are such keen enthusiasts of the game that they played all the editions that have been released. Verification of the general knowledge of the series precedes the second part of the question about how much the respondents know about the FIFA series eSports aspects. The question is, to find out whether the game players know about the tournaments that are being held, if they know the tournament players or maybe even the whole teams. It is also important to know whether the respondents participate in eSports activities such as single tournaments or entire events.



Hypotheses made on the basis of these three research questions are going to be verified in a survey. On the basis of the first question concerning game players two hypotheses were formulated:

- H1 Players have been playing for at least several years and spend at least a few hours a week playing.
- H2 Players play because they consider it their hobby and they enjoy playing.

The second question concerns electronic sport and on its basis four hypotheses were proposed:

- H3 Players are familiar with the concept of eSports and eSports-related aspects.
- H4 Players consider eSports to be a sport.
- H5 Players watched the Internet streaming of eSporst tournaments at least once.
- H6 Players have participated live in an eSports tournament at least once.

The third question refers to a football game series and three hypotheses were made on this basis:

- H7 Players are familiar with the FIFA game series.
- H8 Players are familiar with the eSports context of the FIFA game series.
- H9 Players are familiar with the latest edition of the FIFA18 series.

The introduction and methods are presented from the general aspects of playing, through eSports, through the FIFA series of football simulators. The next step is to formulate appropriate questions for the survey, which will be answered by the respondents. The questions concern eSports in its broadest sense, but they also focus on a specific example, i.e. a series of FIFA games. A more detailed part of the survey related to the FIFA series deals with issues related to the popularity of the game and its organization in eSports context. The survey participants were asked to fill in an online questionnaire on the subject of eSports, its context and, in a more detailed part of the survey, on FIFA game series.

Different perceptions of the same aspects of gaming and eSports develop perspectives for studying these phenomena. When analyzing the responses given, the previously formulated hypotheses are going to be compared with the feedback received from the studied group. It is important to check whether the proposed hypotheses are reflected in the opinions of the respondents, or, on the contrary, they should be rejected as not being in line with the answers obtained.

Questionnaire was distributed among fans of FIFA football game series and fans of football on Facebook. This certain group is connected with youtuber knows as xenq, who currently has a group on Facebook containing more than 8000 members. Questionnaire was posted with agreement of group administrator. The questionnaire consists of 31 closed-ended questions, most of which are in single-choice format with variants of answers provided. Several questions are in multiple-choice format and some have the option of adding the respondents' own answers. In addition, the questionnaire includes 3 open-ended questions, in which respondents were asked to enter their answers. The questionnaire also comprises a socio demographic section of five closed-ended questions where the respondents provided personal information about their age, sex, education, professional status, etc.

Results

In the part of the survey on game playing 441 respondents took part. They declared that they played games when asked the opening question of the survey. The respondents answered how long they had been playing, how often they had been playing on a weekly basis and why they played. Half of the players have been playing video games for over 10 years. The number of players who have been playing for several years now is also significant – 199 respondents (45%). 10 respondents (2%) have been playing for a few months, 6 persons have a year-long experience in game playing, and only 4 players admitted that they had started playing not long ago. The majority of respondents, as many as 99 (22%), play more than 10 hours a week. A similar number of players



-92 respondents (21%) play a few hours a day. Ranging from 7 to 10 hours a week there were 84 (19%) respondents, from 4 to 6 hours a week -76 (17%), and from 1 to 3 hours a week -73 (less than 17%). Only 17 people said they had been playing less than one hour a week, which translated into 4%. 282 of the respondents treat playing as a hobby, and 227 people stated that it helped them to reduce stress levels. Other variants were not very common. Among the answers given by the respondents there were the following: 'I play professionally', 'I play because I like to compete', or 'I play because it is my partner's hobby'.

The part of the survey concerning eSports was done on 437 respondents who answered positively to the question whether they knew the concept of eSports. In this part of the survey the respondents defined what eSports is 206 people (47%) said that it is an online multiplayer video game competition. 29% of players said that the best description of eSports would be that it is a kind of sport in which many people, not just players, are involved. Slightly more than 17% of the respondents said that eSports is a business. In the next step the respondents were asked to give one example of a game they associated with eSports and one example of an eSports team. As for games, Counter-Strike, and especially its latest version C-S: Global Offensive, was the game with the highest number of players. 157 respondents pointed this game. The name The League of Legends has also appeared frequently (indicated by 114 respondents). A significant number of respondents also indicated FIFA series as an example of an eSports game (there were 114 of them). As far as eSports teams are concerned, by far, most people (45%) pointed to the Virtus.pro team, the main section of which is C-S: Global Offensive. Then the respondents answered the question whether they had ever participated in an eSports event. The vast majority, as many as 71%, had never taken part in such an event. The remaining 29% participated in that kind of undertaking. The most frequently mentioned event was Intel Extreme Masters. Of the 437 people surveyed, 59% considered eSports to be a sport and the remaining 41% did not share this opinion. Of the 437 respondents, 314 (72%) said they had watched some eSports game online and the remaining 123 persons (28%) had not. As for the frequency of watching tournament online, among the people who watch it at all the declared frequency was 'occasionally' in about 34% of respondents, 18% of respondents watched it rarely, and 13% – often.

In the part of the survey concerning the FIFA football series took part 433 respondents who replied that they knew this game series. The next question was about having some experience with playing one of the games in the series. Here, too, almost everyone answered 'yes' - 420 people had played the games before, and 13 had not. Most people had played the games from FIFA11 to FIFA16 series, followed by the two latest releases, FIFA17 and FIFA18. The next question in this part of the survey commissioned was whether FIFA series could be described as an eSports game. 38% of respondents rather agreed with the statement, and 34% of players agreed entirely. The next questions were about the tournaments. When asked whether the respondents were familiar with FIFA series tournaments, 89% replied positively and 11% negatively. Two further questions checked whether the respondents were passive (just watching) or active (playing) participants in the tournaments. The question about following the online streaming of FIFA series tournaments was answered by 433 respondents. 35% of them watched tournaments occasionally, 17% frequently, and less than 6% watched regularly. Of all the respondents, less than 18% saw the tournament online once, and 25% did not watch tournaments at all. When asked about their participation in tournaments, whether online, such as national qualifiers, or land based, the respondents had a choice of 6 possible answers: 1) I play regularly (both online and land based), 2) I took part in a tournament several times, 3) I played in an online tournament once, 4) I played in a land based tournament once, 5) I participated as a spectator, 6) I never took part in a tournament. The responses given were as follows: more than half of the respondents never took part in a tournament and 10% participated in a tournament but only as spectators. As for the players – 17% took part several times, less than 5% played regularly, less than 10% participated in a land-based tournament once, and 5% played an online tournament.

In the second section of the third part of the survey 401 participants confirmed that they knew FIFA18 game series, and 32 said that they did not know it. In percentage terms, less than 93% of respondents knew the game, and slightly more than 7% did not. Next, those who knew the game were asked to answer the question whether



they had played it or not. 67% of the respondents admitted having played regularly, less than 16% said they had played it many times, and 8% had played it sporadically. 7% of respondents never played FIFA18. In the context of considering this football series as an eSports game, the Ultimate Team mode was the first choice. The respondents were asked if they knew this mode, especially the part FUT Champions (Weekend League). 33% of respondents said that they regularly participated in the weekend league games, the same number of respondents said they had played this mode several times, and less than 19% admitted having played the Ultimate Team mode but excluding the FUT Champions. 13% of respondents knew what it was but they never tried it, and 2% never heard of it.

Discussion and conclusion

The study provided answers to the research questions and allowed to verify the proposed hypotheses. In the first part, the research hypotheses concern gameplaying. The H1 hypothesis was positively verified. Most of the respondents have been spending more than 7 hours a week playing games for more than 10 years now. The H2 hypothesis was also corroborated, as the main factor influencing the players' gaming experience was that it was treated by them as a hobby (Martoncik, 2015).

In the second part of the study, the research hypotheses concern the perception of eSports. The H3 hypothesis was verified positively, as most of the respondents were able to list the eSports games most often played by players, and most of them knew the eSports teams that played in the tournaments. The H4 hypothesis was also positively verified, with most players considering eSports as a sport (McCutcheon, Hitchens, & Drachen, 2018). The H5 hypothesis was also corroborated, as most of the respondents had watched the online streaming of the eSports games at least once. The H6 hypothesis, on the other hand, should be rejected, as most of the respondents had not participated live in eSports tournaments.

In the third part of the study, the research hypotheses refer to a series of football games. The H7 hypothesis was positively verified as most players were familiar with the FIFA football series. Also, the H8 hypothesis concerning the knowledge of the FIFA series eSports aspect was positively verified. Players knew the eSports modes of the game, but only a small percentage of them had participated in the game tournaments, and most of them had watched it streamed live online. The H9 hypothesis was also positively verified. Most players were familiar with the newest release of FIFA18.

eSports is a relatively new phenomenon. However, it already earned some considerable research attention worldwide. Our results are along with others. Gamers are playing more and more (Hamari & Keronen, 2017; Martoncik, 2015; Seo & Jung, 2016). Spectators are watching more and more of streamed tournaments (Hamari & Sjöblom, 2017; Hilvert-Bruce et al., 2018; Macey & Hamari, 2018; Sjöblom & Hamari, 2017). Contribution of this paper is that the eSports environment of FIFA football game series is explored and extensive application of esports league in this game is shown.

Our results show that 59% responses from questionnaire considered eSports as a sport. However, in the literature we can find two opposite point of views. One group of researchers consider eSports as a sport (Karsenti & Bugmann, 2018; Pizzo et al., 2018; Rosell Llorens, 2017), as our results show, whereas second group of researchers have opposite results (Parry, 2019; Skubida, 2016; Willimczik, 2019).

The main limitation of the present study is that it was conducted among people who are interested in games and devote their time to game playing. If the same survey were conducted among a group that do not play sports video games, the responses about eSports could be completely different, but to confirm this thesis it would require a separate study. The second limitation of the present research is narrowing the examination of eSports to only one series of sports games. A broader perspective on eSports would certainly be provided by research based on other types of games that are popular with players.



This paper deals with a broad and relatively new subject, which is eSport. The first part provides definitions of basic concepts such as eSports, and discusses elements related to it, such as game types, game modes, tournaments and eSports teams. An example of an eSports game, the FIFA Football Simulator series, is also illustrated. After the introduction and presentation of the methods applied, the results are presented.

Finding the answers to the research questions was the aim of this paper. Three research questions were related to aspects of game playing, eSports and a series of sports games. The data collected and the results of the survey enabled the authors of this paper to find answers to all of the research questions. The paper provides information on who plays video games, how long and how often they have been playing, as well as why they do it. It was also possible to find answers to questions concerning the perception of eSports in the context of a sport, certain aspects of electronic sport, as well as FIFA football series. On the basis of the research questions, hypotheses were formulated, the verification of which was sought in the research results. Out of nine hypotheses put forward, eight were confirmed by the results of the research. They concerned both game playing and eSport, but also a series of sports games.

The subject of this paper is very broad, and it can be said that it is only being discovered now. Every so often, new games and devices are created, new teams are formed, and new tournaments or events are run. The potential for research is, therefore, considerable. This paper may be treated as a pilot study of this phenomenon. It contains basic concepts and explains certain behaviors and practices present in eSport. However, the research area should be examined in greater depth. The direction of future research may be expanding this research by including other video games in it, not necessarily sports games, but games from other categories as well. The opinions of the players who play them may be interesting to note. They may have a completely different profile and experience in playing and have a different understanding of some aspects of game playing or eSports. There is also a great potential for research in undertaking the topic of the economic and business aspects of eSports. Therefore, the issues related to the value of eSports markets, cost-effectiveness of engaging in eSports or interest in electronic sports on the part of various business entities not directly related to it would be worth exploring.

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Received: 24 August 2018; Accepted: 3 June 2019





Structure of Achievement Motivation Dispositions in Elite and Non-Elite Track and Field Athletes

Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
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ABSTRACT

Achievement motivation is a distinguishing disposition in elite and non-elite athletes. Implicit theories and competence perception influence the types of achievement goals and constitute separate achievement motivation dispositions. The context of sport promotes various achievement goals and implicit theories about athletic competence. For this reason, scientific research should focus on the intrapersonal profiles of achievement motivation dispositions (achievement goals, implicit theories, and competence perception) instead of specifying only one of them. This study explores differences between elite and non-elite athletes in terms of intrapersonal profiles of achievement motivation dispositions. 54 elite and 50 non-elite track and field athletes took part in the study. The results suggest that athletes tend to perceive their competence accurately. Cluster analysis of the studied dispositions was conducted. The clusters present sets of achievement dispositions that vary in intensity. Moreover, the results present trends of the differences between elite and non-elite athletes in two of the three clusters obtained in the study.

KEYWORDS

Achievement motivation, achievement goals, implicit theories, athletic competence, track and field athletes

Introduction

McClelland (1955, 1986) defined achievement motivation as the need for competition with standards of individual excellence. The need for competition can be understood as striving to improve or maintain one's abilities in significant areas, in which personal standards or patterns of excellence apply to. Adopting standards translates into understanding one's performance as success or failure. The main assumption in this conceptualisation is that motives are dispositions to recognize standards and requirements in real life events and situations (Dąbrowska, 1991). Another broad achievement motivation framework (Tokarz & Kaleńska-Rodzaj, 2011) focuses on the competence and is represented by the constructivist concepts of Nicholls (1984) and Dweck (Dweck & Leggett, 1988). The common core of the concepts is the link between beliefs about the nature of traits (abilities), referred to as implicit theories, and behavioural patterns that are salient in the context of achievement (Moller & Elliot, 2006). Implicit theories direct individuals toward different concepts of success. Individuals who perceive their ability as a fixed entity (Dweck & Leggett, 1988) believe they have succeeded in a task if they managed to complete it without effort, or if others (a normative group) had to put more effort into the task to gain the same result. In essence, these individuals seek performance. Conversely, those convinced about the malleable quality (Dweck & Leggett, 1988) of the trait identify success with effort and



competence gain (Jagaciński & Strickland, 2000) and seek mastery in a task. This distinction, which represents the bifactor model of achievement motivation, has been broadly discussed and explored in various studies (see: Dweck & Leggett, 1988; Elliot & Dweck, 1988; White & Duda, 1993).

However, Elliot and Harackiewicz (1996) argue that the bifactor model of achievement motivation does not go beyond description of appetitive forms of behaviour. Despite antithetical incentives, both learning and performance goals are associated with approaching, not avoiding, challenge. Elliot and Harackiewicz (1996) noticed a relationship between belief about the level of competence in a task and the execution of the task by individuals who adapt performance goals. This link is a consequence of the core beliefs that are characteristic of individuals who pursue performance goals; namely, that important traits such as intelligence in an educational context (Elliot & Dweck, 1988) or athletic skill in a sport context (Duda & Nicholls, 1992) are inborn and intractable to changes. If a skill is not susceptible to change, then its current level conditions general self-evaluation regarding the skill. With high entity belief, self-evaluation is advantageous for individuals who perceive their current competence as high and is disadvantageous for those who perceive their current competence as low. The former disposition leads to engaging in an activity with anticipation of a rewarding outcome, whereas the latter leads to avoiding the activity or engaging in it with the purpose of not showing incompetence (Church & Elliot, 1997; Moller & Elliot, 2007).

The aforementioned findings led researchers to distinguish three forms of achievement motivation: mastery orientation, performance-approach orientation, and performance-avoidance orientation. In a further development of achievement goals theory, Elliot and McGregor (2001) analysed the definition and value dimensions of competence. When defining competence, one can refer to the absolute standard that is based on task characteristics, the intrapersonal standard that is based on its current individual level, or the interpersonal standard that is dependent on the level of the normative group (McClellenad, 1986; McClelland et al., 1995, in: Negru, 2009). The absolute and intrapersonal standards, which are empirically and conceptually indistinguishable, comprise the mastery goal, whereas the interpersonal standard translates into a performance goal in achievement motivation. The aforementioned approach and avoidance behaviour tendencies constitute a value dimension of competence. The four achievement goals (Elliot & McGregor, 2001) include

- 1) mastery-approach goal,
- 2) mastery-avoidance goal,
- 3) performance-approach goal and
- 4) performance-avoidance goal.

Recognition of these four achievement motivation goals gave rise to further questions regarding their links with antecedent characteristics, namely implicit theories (Van-Ypeen & Duda, 1999) and the perception of current competence (Elliot & Church, 1997; Nien & Duda, 2008). In the context of sport, implicit theories take the form of beliefs about the causes of success – assumptions of what is necessary to achieve desirable effects such as results, rewards, and position (Van-Yperen & Duda, 1999). In the beliefs of athletes, success may be determined by their effort, their ability (understood as inborn talent), illegal advantages, or by other external factors that they cannot influence (Duda & Nicholls, 1992; White & Duda, 1993). As indicated previously, the perception of competence plays a significant role in shaping the valence (approach-avoid) of achievement motivation.

Conroy and colleagues (Conroy, Elliot & Hofer, 2003) were the first to test the four-factor model in the context of sport. Confirmatory analysis supported the validity of the model among recreational athletes. With the exception of the mastery-approach orientation, all orientations were positively correlated with fear of failure. The implicit assumption of this study was the mutually exclusive nature of the achievement goals. This approach was questioned in studies on the motivational and emotional consequences of pursuing multiple achievement goals (Barron & Harackiewicz, 2001; Harackiewicz, Barron & et al., 2002; Jang & Liu, 2012). Wang and colleagues (Wang, Biddle & Elliot, 2007) extended this framework in the context of physical activity in their study of teenagers from Singapore (2007). They analysed intrapersonal profiles comprising different levels of



achievement goals for groups of teenagers. Students scored either low, moderate, or high in each of the four goals, which translated into three clusters. The fourth cluster comprised students who scored high in mastery goals and medium in performance goals. However, it was the third cluster (high results in all of the achievement goals) that was associated with most adaptive characteristics and outcomes; namely, the highest perceived competence, the lowest amotivation, the most engagement in physical activity and the most enjoyment of it (Wang, Biddle & Elliot, 2007). These results are in line with earlier findings about the motivational benefits of pursuing both task and ego goals, also defined as mastery and performance goals, the combination of which facilitates engagement in competitive sport (Biddle & Wang, 2001).

The mutual independence of achievement goals is especially legitimate in the context of sport (Sarrazin, Biddle, Famose, Cury, Fox & Durand, 1996, in: Biddle, Wang, Chatzisarantis & Spray, 2003) because task and ego involvement do not exclude each other in the structure of athletes' goals. The concept of ability, understood as a talent, refers to congenital human attributes which can only be slightly affected by an athlete. On the other hand, athletic skills like strength, endurance or technical proficiency can be developed in regular training. Sarrazin et al (1966, in: Biddle et al., 2003) claim that belief in the fixed nature of sporting abilities does not preclude the belief that effort can bring the desired results. The leading issue for professionals involved in physical activity on a competitive level is what differentiates successful individuals from those who underachieve. The focus of this research was to explore the correspondence between the level of the athletes' sporting achievements and trends in intrapersonal achievement dispositions.

Alluding to the concepts of Dweck (1986) and Nicholls (1984) regarding the links between implicit theories, perceived competence and achievement goals, our aim was to explore the link between the level of the athletes' sporting achievements and motivational dispositions. We followed Wang and colleagues' (Wang, Biddle & Elliot, 2007) postulate about the independence of the four achievement motivation goals and developed it by exploring motivational profiles of elite and non-elite athletes. The objective of this study was to explore the motivational profiles of elite and non-elite athletes. We hypothesized that the two groups' profiles would differ in that higher-class athletes show stronger propensity for adaptive dispositions: mastery and approach goals, the belief that effort is the cause of success, and the perception of high competence. It was expected that lower-class athletes would show a tendency to score higher in less adaptive dispositions: performance and avoidance goals, the belief that ability and external factors are the causes of success, and the perception of low competence.

Methods

Polish cities¹ participated in the study. Due to incomplete responses in 4 sets of questionnaires, 112 data sets were analysed further. Athletes were 19–28 years old with a mean age of 21.5 (SD = 1.9). The sporting level of the participants varied: 1.8% were international master athletes, 9.8% master athletes, 36.6 % first-class athletes, 23.2% second-class athletes, 20.5% third-class, 0.9% lower-class athletes. 7.1% of the athletes did not define their sporting level. The first three groups (MM, M, first-class) were categorized as *elite athletes* (48.2%); the three latter groups were categorized as *non-elite athletes* (compare: Gierczuk et al., 2012). This classification was applied in pursuit of accordance with the definition of an *elite athlete* introduced by Swann, Moran, and Piggott (2015). Most of the sample categorized here as higher-class athletes fit the description of *Successfulelite* or at least *Competitive-elite* (see: Swann, Moran & Piggott, 2015). Athletes represented various athletic disciplines: sprinting (17.9%), hurdling (16.1%), middle distance running (19.8% – 400 m, 800 m, 1500 m), long distance running (13.5%), jumping (18.9% – high, long, an triple jumping, there were no pole vault

¹ Academic Sport Association is a Polish student sport organization. ASA associates athletes from various disciplines, including track and field. Many ASA members belong to Polish national teams and represent Poland in international sport events, including the Olympics. ASA official site: http://www.azs.pl/



representatives), race walking (1.8%), athletic throwing (6.3% - discus, javelin, shotput, hammer), steeplechase (1.8%).

Questionnaires were distributed to athletes indirectly through track and field coaches as well as by 'snowball sampling' and directly during the Polish Academic Athletic Championships. Every participant was asked to complete three questionnaires: the Achievement Goals Questionnaire² (1), the Sport Belief Questionnaire (2) and the Perceived Sport Competence Questionnaire (3). The Polish adaptation (Wojdyło & Retkowski, 2012) of Elliot and McGregor's (2001) Achievement Goals Questionnaire (1) was applied to examine achievement goals in the study sample. The original version of the questionnaire was designed for employees but for the purposes of the study it was precluded by a request to take it from the perspective of an athlete. Like the original (Elliot & McGregor, 2001) instrument, the questionnaire measures four kinds o achievement goals: mastery-approach, mastery-avoid, performance-approach and performance-avoid. Research conducted on 387 participants supports the satisfactory reliability of the Polish adaptation and the good fit of the four-factor model (Wojdyło & Retowski, 2012). In the current research we added two questions after the questionnaire to determine whether participants had given answers from the perspective of athletes.

The Sport Belief Questionnaire (2) was adapted (Duda & Nicholls, 1992) to measure implicit theories about the causes of success. The original instrument consists of 18 items that make up four subscales: Effort, Deception, Ability, and External Factors. Each subscale refers to different beliefs about the causes of success in sport. The Effort subscale relates to beliefs that hard work, training, and passion lead to success. The Deception subscale concerns illegal advantages such as cheating. The Ability subscale refers to an inborn talent as the primary cause of success, and the External Factors subscale deals with uncontrollable variables like luck or equipment. Back translation (from English to Polish and backwards) was implemented in the process of adaptation. The internal reliability of the model fit for the adaptation was conducted using SPSS 22. Principal axis factoring alongside theoretical background reflections resulted in a four-factor model which explained 46.8% of variance. Kaiser oblique rotation resulted in a solution with 14 items. The reliability of the scale was close to the recommended level as Cronbach's α was 0.66 (Bedyńska & Cypryańska, 2013).

Athletes' subjective estimation of their present competence in sport activity was measured by the short Perceived Sport Competence (3) scale that was designed in Polish for the purpose of the study. The participants responded to 5 statements on a 5-point Likert-type scale. The reliability (Cronbach's α) of the scale was 0.81. The scale was specifically developed for the context of competitive sport and focused on competence in this field instead of general self-efficacy, as was employed in the Polish studies by Juczyński (2000).

Results

The role of sporting level (elite/non-elite) in the variability of motivational dispositions is presented in Table 1. Links between sporting level and all the motivational dispositions (beliefs about the cause of success, perceived competence, and achievement goals) were tested using a MANOVA test in SPSS 24 software. Levene's test for homogeneity of variance shows that all the dependent variables met its assumption. However, according to the Shapiro-Wilk test, only perceived competence and the mastery-avoid orientation goal met the assumption of normal distribution. There was a statistically significant difference in motivational dispositions based on the athletes' sporting level, F(8, 102) = 2.08, p<.05; Wilk's $\lambda=.858$; partial $n^2=.142$. However, a follow up ANOVA showed that the only significant effect on the perceived competence in sport was that of sporting level (elite vs. non-elite); F(1,110) = 11.96; P=.001. Elite athletes tended to perceive their current sporting competence as higher (x=3.47, sd=.72) than non-elite athletes (x=2.99, sd=.74).

² The Achievement Goals Questionnaire registers responses on 7-point, Likert-type scale; the Sport Belief Questionnaire and Perceived Competence both register responses on 5-point, Likert-type scale. The athletes' results in the three scales were standardized in further statistical analysis.



Table 1. Effects of sporting level on motivational dispositions

Dispositions	Sport	ing level		
_	Elite	Non-elite	F	p
master_approach	5.86	5.63	1.37	.24
master_avoid	4.42	4.37	.04	.83
perform_approach	4.98	4.65	2.06	.16
perform_avoid	4.98	4.65	2.06	.16
comp_sport	3.47	2.99	11.96	*00
sport_belief_effort	4.37	4.14	3.6	.06
sport_belief_deception	2.42	2.36	.13	.72
sport_belief_ability	3.81	3.82	.01	.94
sport_belief_external	2.79	2.77	.01	.94

Note: master_approach, master_avoid, perform_approach, perform_avoid – mean results in *Achievement Goals Questionnaire* for the respective factors, comp_sport – overall mean result in *Perceived Sport Competence*, sport_belief_effort, sport_belief_deception, sport_belief_ability, sport_belief_external – mean results in *Sport Belief Questionnaire* for the respective factors, *= p < .05.

Source: own study.

Table 2 presents the results of the series of multiple linear regression analyses that were conducted to test if perceived competence and beliefs about the causes of success (Effort, Ability, External Factors, Deception) predict athletes' results in the four achievement goals. The Enter method shows several significant predictors in the case of the mastery-approach goal: Effort [β =.35, P<.05], Deception [β = -.25, P<.05] and External Causes [β = -.17, P<.05], and one significant predictor in the case of both performance goals, Ability [β =.23, P<.05].

Table 2. Multiple regression analyses of links between motivational dispositions

Dispositions	mastery- approach		mastery- avoid		performance- approach		performance- avoid	
	β	p	β	P	β	p	β	P
sport_belief_effort	.35	.00*	03	.36	.02	.41	.02	.41
sport_belief_deception	25	.005*	.006	.48	05	.32	05	.32
sport_belief_ability	.14	.07	.06	.28	.23	.01*	.23	.01*
sport_belief_external	17	.04*	.02	.41	.01	.47	.01	.47
comp_sport	003	.49	06	.26	08	.21	08	.21

Note: compare Note under Table 1.

Source: own study.

Figure 1 shows 3 profiles with intraindividual levels of motivation dispositions: achievement goals (mastery-approach, mastery-avoid, performance-approach, performance-avoid), perceived competence and beliefs about the causes of success (Effort, Ability, Deception, External Factors). The profiles were determined in non-hierarchical clustering with the k-means algorithm. This type of clustering, as was comprehensibly described by Wang and Biddle (2001), minimizes within-group variability and maximizes intergroup variability. Athletes' mean results in all motivation disposition variables were standardized to the z scale, where mean equals zero and standard deviation equals 1. The analysis was conducted for 112 observations. Two outlying observations (results in Effort subscale below -3 in z scale) were excluded (compare: Wang & Biddle, 2001). The *three clusters solution* was chosen as it allowed proportionate distributions of observations between the clusters.

The first cluster groups the 45 athletes who had high scores in all achievement goals (>.5z except for the mastery-avoid goal), average mean results (<.5z and >-.5z) in perceived present competence and beliefs



about all causes of success (Effort, Ability, Deception, External Factors). This cluster is labelled *High Ambivalent Motivation*.

The second cluster is composed of 32 athletes with high results in perceived present competence and belief that effort is the cause of success, average results in both mastery goals, average score in the belief that deception is the cause of success, low results [<(-.5)z] in both performance goals and beliefs that ability and external factors are the causes of success. In view of the group's perception of their high competence and strong belief that effort is the cause of success, these athletes were referred to as *Competence-Effort Oriented*.

The third cluster comprises 32 athletes with high results in beliefs that ability and external factors are causes of success, average results in both performance goals, the mastery-avoid goal, perceived present competence, belief that effort and deception is the cause of success and low scores in the mastery-approach goal. This cluster was labelled *Externally Oriented*.

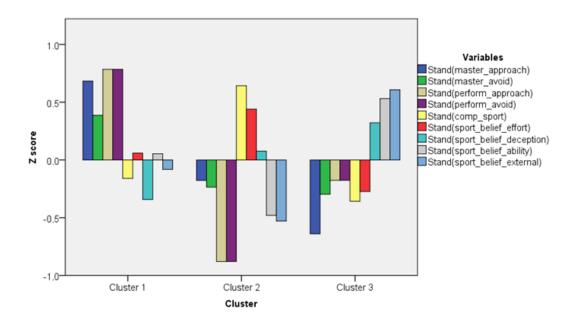


Figure 1. Intraindividual profiles of achievement motivation dispositions.

Note: Cluster 1 – *High Ambivalent Motivation*, Cluster 2 – *Competence-Effort Oriented*, Cluster 3 – *Externally Oriented*, variables – see Note under Table 1.

Source: own study.

In the next step, the *chi* square test of independence was calculated to check whether athletes in the three clusters differ regarding sporting level. Table 3 shows the number of elite and non-elite athletes in each cluster. A non-significant tendency was found $\chi^2(2) = 5.14$, P=0,077. There was similar number of elite and non-elite athletes in the first cluster, whereas clusters 2 and 3 differed in that there were more elite athletes in the second cluster and more non-elite athletes in the third cluster. There was no difference between clusters in the number of male and female athletes $\chi^2(2) = 1.4$, P<0.05.



Table 3. Number of elite and non-elite athletes in each cluster

		Clusters			
		High Ambivalent Motivation	Competence- Effort Oriented	Externally Oriented	Total
Sporting level	Elite	23.0	20.0	11.0	54.0
	Expected	22.3	15.9	15.9	54.0
	Non-elite	22.0	12.0	21.0	55.0
	Expected	22.7	16.1	16.1	55.0

Note: see Notes under Table 1 and Figure 1.

Source: own study.

The last step was to examine the links between sporting level and motivational dispositions in each cluster separately. A MANOVA test with sporting level as an independent variable and beliefs about causes of success, perceived competence and four achievement goals as dependent variables showed no statistically significant main effect in any of the clusters. However, a follow up ANOVA showed a close to significant effect of sporting level on Effort in the first cluster F(1, 45) = 3.99, P = .052, which suggests a tendency for elite athletes to score higher in the Effort scale (x = 4.45, x = 4.45) than non-elite athletes (x = 4.12, x = 6.4). Similarly, in the second cluster the sporting level was significantly related to both performance achievement goals x = 6.4. Similarly, in the second both goals), x = 6.4. Elite athletes tended to score higher (x = 4.11, x = 6.4). Similarly, in the second competence x = 6.4. In performance goals. In the third cluster, the sporting level had a significant effect on perceived competence x = 6.4. And on the mastery-avoid achievement goal x = 6.4. And on the mastery-avoid achievement goal x = 6.4. And on the mastery-avoid achievement goal x = 6.4. Also, non-elite athletes scored higher in the mastery-avoid achievement goal (x = 6.4). Also, non-elite athletes scored higher in the mastery-avoid achievement goal (x = 6.4) than elite athletes (x = 6.4). Also, non-elite athletes scored higher in the mastery-avoid achievement goal (x = 6.4) than elite athletes (x = 6.4).

Discussion

The aim of this study was to explore the links between sporting level and achievement motivation dispositions. The dispositions in this study comprised of achievement motivation goals, perceived competence, and implicit theories about the causes of success in sport. The results show that the athletes in the study appraised their competence according to their performance - elite sportspeople evaluated their competence higher than non-elite athletes. This effect is an outstanding difference between the two groups participating in the study and might indicate an adequate perception of competence in participants. Another possible explanation of the effect is that perception of competence influences performance. In this interpretation perception of high competence in elite-athletes would lead them to better sport performance and low evaluation of competence by non-elite athletes would hinder their achievement. A partial support for this proposition is that participants' sporting level, was determined by reference to standardised scale (compare: Gierczuk et al., 2012) and not solely by their current performance.

The analysis of the links between the dispositions in the general sample shows that the belief that effort is a cause of success is positively related to the mastery-approach goal, whereas beliefs that deception and external factors are causes of success are negatively related to this goal. These findings are in line with the most classic frameworks on achievement motivation goals (Dweck & Leggett, 1988; Elliot & Dweck, 1988). Significant links between the belief that ability is the cause of success in sport and both performance goals obtained in the study sample satisfy the theoretical hypothesis. On the other hand, the results of the study do not confirm the link between the belief that effort is the cause of success and the mastery-avoid goal. On the basis of assumptions made in the classic frameworks of the four achievement goals (Elliot & McGregor, 2001), this outcome could be expected. However, a more recent meta-analysis of master-avoid goal correlates (Baranik et



al., 2010) gives evidence for the empirical and conceptual distinctiveness of the goal. Our results may be interpreted as supporting the independence of the mastery-avoid goal in terms of its antecedents.

Wang and Biddle (2001) conducted cluster analysis of achievement motivation dispositions in the context of physical activity. Their findings show that the combination of multiple goals is related to a predisposition for engagement in competitive sport. Our study addresses achievement motivation characteristics among sportspeople. Cluster analysis determined three groups of athletes with specific motivation disposition profiles. The first group, referred to as *The High Ambivalent Motivation*, consists of a proportional number of elite and non-elite athletes. In comparison to athletes in other clusters, they scored high in the mastery-approach, performance-approach and performance-avoid goals, and average in perceived competence and different beliefs about the causes of success in sport. The within-cluster analysis of motivation disposition showed that elite athletes tend to score higher in the belief that effort is the cause of success in sport, as compared to the group of non-elite athletes. This finding is in line with hypothetical links between implicit theories and performance (Dweck, 1986); namely, athletes who believe that effort is the cause of success in sport put more effort into training and competition and perform better than other sportspeople.

A non-significant tendency is displayed by more elite than non-elite athletes in the second *Competence-Effort Oriented* cluster. Generally, sportspeople in this group perceive their competence as high, score low in both mastery and performance goals, and believe that effort, but not external causes or inborn talent, are causes of success. Closer examination of the interaction between the sporting level and the achievement dispositions in the cluster shows that elite athletes scored higher in performance goals than non-elite athletes. These findings give limited support to the assumptions of Sarrazin et al., 1996; in: et al., 2003) that successful sportspeople adapt both incremental and entity theories about their athletic skills (Dweck & Leggett, 1988).

The *Externally Oriented* cluster consists of athletes who scored high in the belief that inborn talent is the cause of success in sport and scored medium in perceived competence. Together with low results in the mastery-approach goal, this set of dispositions constitutes the least adaptive achievement motivation profile (Wang & Biddle, 2001). The significant dominance of non-elite athletes in the cluster provides further confirmation of this. Moreover, the within-cluster analysis indicates that non-elite athletes in the cluster scored lower in perceived competence and higher in the mastery-avoid goal than elite athletes, as was expected (Duda & Nicholls, 1992; White & Duda, 1993).

Several limitations of the research need to be addressed. First, the study sample had to include a similar number of elite and non-elite athletes. This limited number of participants could have weakened the results obtained in the study. We observed a tendency for there to be more elite athletes in the second cluster and more non-elite athletes in the third; this could have been significant if a larger sample had been provided. Second, only track and field athletes participated. Lastly, the study focused on achievement motivation goals and their antecedents: implicit theories and perceived competence goals (Elliot & Church, 1997). Other important lines of study in the context of achievement motivation include enjoyment of engagement in sport, amotivation, and the level of autonomy in sport (Wang & Biddle, 2001; Wang, Biddle & Elliot, 2007). These dispositions should be included in further studies with the participation of elite sportspeople.

Practical implications

More emphasis should be put on forming healthy concepts of competence and causes of success. Interpersonal comparisons of an athlete's performance and external explanations for it should be avoided by coaches and other sports professionals.



Conclusion

The study aim was to explore achievement motivation dispositions in elite and non-elite track and field athletes. Disciplines which require years of training and preparation facilitate the development of achievement motivation. Some of the research findings are noteworthy. First of all, athletes seem to perceive their competence adequately: elite sportspeople scored higher in Perceived Sport Competence than non-elite athletes. Second, the results support not only the classic assumptions (Dweck & Leggett, 1988) about the links between implicit theories and the mastery-approach goal, but also more current findings (Baranik et al., 2010) relating to the mastery-avoid goal. Finally, the study reveals three distinct achievement motivation profiles which partially coincide with the patterns of achievement dispositions obtained in the context of physical activity.

Acknowledgements

We would like to thank all the track and field athletes who participated in the study. We also thank professor Czesław Noworol for invaluable comments regarding statistical analysis, professor Kamila Wojdyłło for sharing tools essential for the study, dr Grzegorz Głąb, track and field coaches, who helped in data gathering and Jagiellonian University.

Ethics approval and informed consent

Ethics approval for the study was granted by The Institutional Research Ethics Board residing in Institute of Psychology at Jagiellonian University.

Competing interests

No potential conflict of interest was reported by the authors.

Funding

This research received no specific funds from any public or private funding agencies.

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Received: 5 November; Accepted: 2 July 2019