The complexity, tensions and struggles in developing learning communities throughout a Sport Education season

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Abstract

Several studies demonstrate that Sport Education (SE) supports the development of an authentic sport experience. However, the ‘messiness’ attached to the reality of effectively enacting SE is less prominent in the literature. The aim of this study is therefore to capture the complexity, tensions and struggles (for both lecturers and undergraduate students) of delivering and experiencing an authentic Artistic Gymnastics SE season within learning communities. Action research framed this 13-week study. Participants included 33 undergraduate students, four lecturers (one familiar with SE and three familiar with Artistic Gymnastics) at a university in Brazil and a professor with expertise in teaching and researching SE who was contacted regularly throughout the SE season. Data was collected weekly and included: (a) weekly collaborative lecture group meetings after each class; (b) student reflective diaries; (c) lead lecturer weekly observations collected as field notes; (d) Facebook posts; and (e) student focus groups. Data analysis involved inductive and constant
comparison. Results conveyed: (a) the relationship of trust and interdependence between the lecturers who implemented SE; (b) how students created a safe environment that allowed them to overcome fear; and (c) how lecturers and students negotiated the different levels of students’ engagement during the season and the associated feeling of frustration. Lecturers and students developed into two separate communities of learners. Future studies should continue to examine the effectiveness of a community of learners within the SE context and specifically encourage lecturers and students to work together as one learning community, learning from, and with, each other.

**Keywords**: Sport Education; Situated learning; Instructional Models; Community of learners; Action research; Model-based practice

**Introduction**

Whenever we start talking about the competition [Sport Education season] I have contradictory feelings. I think it is really cool the idea of the competition: thinking about what it takes to roll out an Artistic Gymnastics competition that involves the whole class. However I'm scared to death! I can do almost anything I want to do and I do not want to damage my team (the most wonderful and caring team in the world!). I'm afraid of feeling more ashamed, not being able to decide a routine for me… I'm anxious, I'm excited, I want to see it happen, I want to make it happen with everyone: my team and the whole class! As I have said, I have contradictory feelings! Please do not be scared if I get a weird face next class (now you know what's up!). I think over time I will let it go, and with the rules and the code of points [scoring booklet] that we will define together in the next class, things will be clearer and I will overcome this stupid fear! (Student diary - lesson 4)
Embedded within the above undergraduate student diary entry are the complexity, tensions and struggles of the environment in which this project took place. Several studies demonstrate that Sport Education (SE) is capable of providing an authentic and educationally rich sport experience (Araújo et al., 2015; Brock and Hastie, 2017; Hastie, 2012; Hastie et al., 2011, 2017). However, the complexity, tensions and struggles of effectively enacting SE are discussed less prominently in the literature. We believe there are new opportunities for understanding learning within SE by engaging with the notion of learning communities (Lave and Wenger, 1991; Wenger, 1998; Wenger and Wenger-Trayner, 2015), and revealing the messy area in action research (Cook, 2009).

Messy is a vital element for changing in action research. It is the interface between the known and the nearly known, between knowledge in use and tacit knowledge. The purpose of entering this ‘messy area’ is to enable and allow new directions to emerge for educators and researchers. This means space for imaginative freedom and new ideas, with a view to understanding, more fully, the reality of striving to effectively enact SE. According to Cook (2009), mess and rigour might appear to be strange bedfellows in action research. However, the author argues that ‘the purpose of mess is to facilitate a turn towards new constructions of knowing that lead to transformation in practice’ (277).

Discussion of the messiness of effectively enacting SE is less prominent in the literature. The aim of this study is therefore to capture the complexity, tensions and struggles (for both lecturers and students) of delivering and experiencing an authentic SE season within learning communities. In the next section we introduce situated learning theory and present Legitimate Peripheral Participation (LPP) as a central characteristic of this theory.

Situated learning, legitimate peripheral participation and learning communities
Situated learning focuses on learning as ‘an integral and inseparable aspect of social practice’ (Lave and Wenger, 1991: 31). Lave and Wenger (1991) draw attention to the point that learners inevitably participate in learning communities and that the mastery of knowledge and skills requires newcomers to move toward full participation in the sociocultural practices of a community. In that sense, ‘learning implies becoming able to be involved in new activities, to perform new tasks and functions, to master new understandings’ (Lave and Wenger, 1991: 53).

`Legitimate Peripheral Participation (LPP) is a central defining characteristic of situated learning theory (Wenger and Wenger-Trayner, 2015; Wenger et al., 2002). It is an analytical viewpoint on learning, a way of understanding learning. LPP provides a way to speak about the relation ‘between newcomers and old-timers, and about activities, identities, artifacts and communities of knowledge and practice’ (Lave and Wenger, 1991: 29). LPP is a conceptual bridge about the production of changing persons and changing communities (Lave and Wenger, 1991). Legitimacy of participation is a characteristic of a way of belonging, not only a crucial condition for learning but a constitutive element of its content. Peripherality means that there are multiple, varied, more-or-less-engaged and inclusive ways of being located in the field of participation defined by a community. Participation is about being located in the social world. In that sense, changing location and perspectives are part of actors’ learning trajectories, developing identities and forms of membership.

In using situated learning as a theoretical framework to examine learning within SE, Kirk and MacDonald (1998), Kirk and Kinchin (2003) and Tannehill et al. (2015) argued that SE provides an authentic sport experience by reproducing contemporary learning communities that are in line with community based sport (aligned with legitimacy, peripherality and participation). The key features of SE are central practices of community sport and, therefore, provide learners with replicable experiences. SE promotes, through the
feature of affiliation, learners adopting different roles in sport, for example, a coach, journalist or record keeper (Siedentop, 1994). These roles allow learners to authentically participate in a learning community, through encouraging them to occupy a unique identity where their contributions are regarded as important for other members (Kirk and Kinchin, 2003; Kirk and MacDonald, 1998; Tannehill et al., 2015).

SE encourages teachers and students to establish and maintain a physical education learning community through promoting boundaries, persistence, common goals, cooperation and symbols and rituals (Tannehill et al., 2013). The six key features of SE (seasons, affiliation, competition, a culminating event, record keeping and festivity) (Siedentop, 1994) lend themselves to supporting learning communities (Kirk and Kinchin, 2003; Kirk and MacDonald, 1998; Tannehill et al., 2015). Tannehill et al. (2015) describe in what way SE addresses each of the six characteristic of learning communities. ‘Seasons’ and ‘affiliation’ extend the length of time that students work together as a team, becoming micro-communities if they persist over time. ‘Culminating event’ and ‘record keeping’ allow the teams to convey what they have learned throughout the season, working towards a common goal and enhancing cooperation. ‘Competition’ and ‘festivity’ encourage students to make many of the decisions that determine the structure and operation of the season. They encourage the development of teams into learning communities where students identify with a team name and colours, create boundaries as regards differentiating between members and non-members and develop significant rituals.

Although there are studies that describe the potential of situated learning as a theoretical framework to examine learning in SE (Kirk and Kinchin, 2003; Kirk and MacDonald, 1998; Tannehill et al., 2015), there is a lack of empirical evidence in this area that enables us to be fully informed on how best to encourage and achieve authentic engagement within learning communities. In addition to this, is a level of ‘messiness’
expected to be captured through exploring complexity, tensions and struggles.

Through the discussions on situated learning and LPP, we have conveyed that SE provides an authentic experience of sport through reproducing learning communities in community-based sport. In this study, by gaining insight into students’ and lecturers’ learning trajectories, the intention is to identify challenging experiences that arise through a developmental progression towards the achievement of specific goals. The purpose of this paper is to capture the complexity, tensions and struggles (for both lecturers and students) of delivering and experiencing an authentic SE season within learning communities.

**Methodology**

This study was an action research project that is based upon a spiral of activity that includes planning the research, conducting the research, observing outcomes and reflecting on outcomes to inform a new turn through the activity spiral (Kemmis, 2006). We adopted action research to capture the complexity, tensions and struggles (for both lecturers and students) through students engaging in meaningful learning.

**Context and participants**

The participants included 33 undergraduate students (nine women and twenty-four men) in the third year of a Bachelor of Sport degree at a public university in Brazil. The mission of this university is to provide high quality education and produce innovative knowledge in the area of sport in an interdisciplinary and applied way, ensuring a connection with social issues. The purpose of this degree is to educate undergraduate students to become coaches, with a specific focus to: (a) work in promoting and delivering sporting activities at various levels and across different types of organizations; (b) manage sports, recognizing the physical potential and limit of the human body; (c) provide resources to apply sport for
individual and social development contexts. In the specific course reported in this study there is no formalized coursework related to SE or other pedagogical models.

The students were aged between 20 and 39 years old and had no previous experience with SE or Artistic Gymnastics (AG) on the programme. Participants were enrolled in an AG 60-hour class over a four-month period. The AG course is a theoretical and practical course that aims for students to learn skills and the fundamentals of AG, the pedagogical processes to teach AG, safety issues, and the discussion of interdisciplinary themes that can be explored through AG. The class met once a week for three hours.

Four lecturers (one familiar with SE and three familiar with AG) also participated. Carla (female), first author, had ten years of experience teaching content courses (such as sport pedagogy, sport sociology and team sports) to students. She had significant experience with SE, both in terms of planning and teaching a number of seasons. She had no previous experience with AG. Carla invited Pri (second author), Diego (third author) and Michele (fourth author) to be part of this study. Pri (female) was a PhD student with seven years of experience teaching gymnastics content courses to students. She also had seven years of experience coaching AG and as a national AG judge. Pri had no previous experience with SE. Diego (male) was a national Rhythmic Gymnastics judge with 14 years of experience coaching AG and Rhythmic Gymnastics. Diego had no previous experience with SE. Michele (female) had five years of experience teaching gymnastics content courses to students and no previous experience with SE. Ann (female and fifth author), a professor with expertise in teaching SE, was contacted regularly throughout the SE season for advice on how to progress through the ongoing season. She had 15 years of experience as a physical education teacher educator and has conducted research in teaching and learning experiences aligned with SE.

Ethical approval was provided by the university ethics committee. Students and lecturers provided informed consent for their participation in the study.
The implementation of SE included the six key features: seasons, affiliation, formal competition, a culminating event, record keeping and festivity (Siedentop, 1994). Table 1 describes these features and how they were implemented in this study.

The SE season lasted for 13 weeks with one three-hour session delivered each week. The students took part in a SE unit in AG taught by the lecturers. The lecturers planned all classes together in weekly lecturer group meetings. The student groups selected six peer coaches who then collectively devised six mixed ability teams. Three teams had six students and three teams had five students (total of 33 students). In addition to the role of player, students were required to agree and select peers in their respective teams to undertake the role of coach, manager, journalist, judge, or choreographer. In the case of the teams with five students, the coach also undertook the role of the choreographer. Students had only one additional role to that of player. Throughout the season (weeks 9-12) the students performed in a qualification round, all-round finals and apparatus finals (including floor exercise, balance beam and vault). During the post-season phase (week 13), all students performed in team finals. The students also organized an event to award medals for the most improved player, best organizational rules, and other significant achievements throughout the season.

The coaches were responsible for planning the training sessions and creating routines. The managers took care of team administrative duties such as organizing the equipment for team practices and informing all team members of when and where the competition would take place. The judges were responsible for teaching the rules to teammates and upholding rules during the competition. The journalists were responsible for collecting information about their team and updating their team’s portfolio on Facebook (Kinchin, 2001; Luguetti et
The choreographers were responsible for helping the coaches to create routines, and specifically artistry compositions.

**Data gathering**

Data collection was weekly over a four month period.

(a) *Weekly collaborative lecturer group meetings after each class session.* The structure of the meetings created an environment for lecturers to engage in conversations about their experiences using the SE model through AG and to seek advice from each other on how to proceed or negotiate challenges that emerged. Having these meetings after each class session created opportunities for flexibility, spontaneity, and responsiveness in different situations, allowing participants to share challenges and enablers arising during teaching sessions. All lecturers group meetings were audio recorded and transcribed (total of 205 pages).

(b) *Student reflective diaries.* The students completed diary entries every week for 13 weeks. A total of 225 student reflective diary entries were completed during the period of the study. Diary entries were based around five writing cues that align with the concepts of legitimacy, peripherality and participation. Table 2 describes these diary entries.

(c) *Lead lecturer weekly observations through field notes.* The lead lecturer wrote field notes/observations of each class (total of 24 pages) about the reflection of challenges and enablers arising during teaching sessions and such data informed the weekly lecturer group meeting discussions.
(d) Facebook posts. Student journalists were responsible for collecting information about their team and updating their team’s portfolio on Facebook as part of the class. The lecturers and the other students also participated on Facebook. Twenty-two status updates, 514 likes, and 77 comments were noted on the Facebook page. This data was exported to Microsoft Excel using the Facebook export application.

(e) Student focus groups. Two 20-minute focus groups were conducted with each of the six teams (seven weeks into the 13-week unit and at the end of the unit). The focus groups followed a semi-structured interview protocol format and were conducted by the first author. The focus groups were based on the concepts of legitimacy, peripherality and participation (Table 2). The focus groups were digitally recorded for verbatim transcription (total of 77 pages). We did not report the focus group data in the results section because the students’ reflective diaries better capture the complexity, tensions and struggles the students’ faced. However, the focus group data was used to code the data and for the construction of themes.

Data analysis

Data analysis involved four steps and was approached through an inductive lens (Lincoln and Guba, 1985). Firstly, Carla, Pri, Diego and Michele read all data sets separately and engaged in the process of coding aimed at capturing the complexity, tensions and struggles of delivering and experiencing an authentic SE season within learning communities. Through this inductive approach, statements and ideas were developed as data was read and re-read. After the data were coded, Carla, Pri, Diego and Michele discussed the codes they had identified in relation to the research question. Examples of codes by each lecturer were shared, and then questioned and critiqued by the other lecturers. This enabled the lecturers to share commonalities and differences. The third process of analysis involved constant comparison. Data were grouped and placed into categories and moved backwards and
forwards until an agreement was reached. The fourth and final process of analysis involved
the critical friend. Ann engaged in a process of checking the interpretations. She added
credibility to the analysis by challenging the interpretations of the coded data and the
construction of themes. In this phase, data was moved between different themes until a level
of agreement was reached. In order to better describe the complexity, tensions and struggles
of delivering and experiencing an authentic SE season within learning communities, we
decided to present vignettes that describe students’ and lecturers’ learning trajectories that
incorporate the codes that emerged in the data analysis process. Pseudonyms are used
throughout to refer to the students. For the presentation of results, direct quotes have been
translated into English.

Results

We use vignettes to foreground what occurred during the implementation of the SE
season. In the first vignette we describe the relationship of trust and interdependence between
the lecturers. In the second vignette we convey how students created a safe environment that
allowed them to overcome fear. The third vignette describes how lecturers and students
negotiated the different levels of students’ engagement during the season and the associated
feeling of frustration. Finally, the fourth vignette highlights how lecturers and students
evolved to form two communities of learners.

Vignette 1: ‘Artistic Gymnastics is complex, but we're all together’: trust and
interdependence between lecturers

This vignette describes the relationship of trust and interdependence between the
lecturers. From the beginning of the project, the lecturers conveyed trust towards each other
and interdependence with each other due to the challenges that emerged. The weekly
collaborative lecturer group meeting after each class session was the space where the
The first challenge was to co-create a competition that would engage students. In order to do that, the lecturers brainstormed ideas of how to teach the complex code of points. According to the International Gymnastics Federation (FIG), the purpose of the code of points is to: (a) provide an objective means of evaluating gymnastics exercises; (b) standardize the judging of FIG official competitions; (c) assure the identification of the best gymnast in any competition; (d) guide coaches and gymnasts in the composition of competition exercises; (e) provide information about the source of other technical information and regulations frequently needed at competitions by judges, coaches, and gymnasts (FIG, 2016). The official code of points was created to provide the judges, coaches and gymnasts with a document that would guide them to the development of high level competitions.

In order to engage the students in meaningful learning, the lecturers decided to co-create a code of points with the students. The lecturers had to negotiate different points of view to create a teaching strategy for co-creating the code of points, and a relationship of trust and interdependence emerged as a way to negotiate that challenge. After the third lesson, the lecturers discussed how to most effectively teach a code of points:

Pri: This is an official code of points

Carla: Wow, that's crazy! This will be very difficult for our students to understand and of course for me to understand it!

Pri: But with the drawing activity this will get easier. I'm going to use a drawing competition for the students to understand the Artistic Gymnastics competition.

Firstly, we will define the theme of the drawing and establish the criteria and values for the difficulties of drawing. For the execution note, we have established a chart of
draw-chart-related faults, which would be reduced from 10 points according to the error level (dash with slight variations in the line would have discounted one-tenth, for example). At the end of the competition, we relate the dynamics to Artistic Gymnastics competition (e.g. scoring and code of points). I assure you that it will work!

Carla: I am not sure it will work because Artistic Gymnastics is complex, but we're all together! Oh, another thing I was going to tell you, I'm going to stay outside of Brazil for the next two weeks and whatever you decide on that time, I am with you...

whatever you decide you have my support for sure

(lecturer group meeting - lesson 3).

Through the drawing activity, Pri and Diego co-created a code of points with the students. This code was a rulebook that defined the scoring system for the competition. The students were involved in all decisions in co-creating this code.

Carla asked the students to compile the routines based on the code of points they had created in the previous class with Pri and Diego. While the students were working on the task of creating the routines, several doubts began to arise that Carla could not answer in that class:

Several questions emerged during the class and I could not help my students. I was not prepared to be alone in this class and I don’t understand the code of points they co-created with Pri and Diego. Oh My God, Artistic Gymnastics is a crazy sport and I am afraid it is not going to work! The students had a code of points and they asked questions that I could not answer last class. Firstly, I need to understand this code of points. In this class I was thinking all the time ‘If I were a judge, the competition would not happen’
In addition to the questions regarding the code of points, the students asked about the height of the beam. The students wanted to use the lower beam and Carla recognized that they were afraid of the official balance beam height. In relation to the vault, the students did not know which difficulty they could perform. Gisele, one of the students, tried a forward handspring in this class and some of her peers imitated her. Carla was very concerned about safety during this class. The students also had doubts about artistry composition. One of the boys performed an unusual movement and asked Carla, ‘Can this be considered an artistry composition?’ Carla did not know how to respond. Carla did not know about the ‘requirements’ or about the ‘connections’. It was clear that Carla needed help from Pri and Diego:

In today's class we practiced for the competition. Our team had no music and we didn’t know exactly what to do. Diego and Pri weren’t here to help us and Carla alone could not meet our needs and we became ‘orphans’. When Diego gave us the copy with the official code of points in the last class, I was thinking about the work of a judge who must understand all these rules very well. What hard work – a lot of training and dedication!

(João, diary - lesson 5)

In the following days, Carla contacted Diego and Pri by email, WhatsApp, phone and Skype several times. All three lecturers revisited the code of points together and agreed on possible answers to the students' questions. At the beginning of the next class, the three lecturers worked with the students in considering the most appropriate responses to the questions they had posed previously regarding the code of points.
A second challenge that emerged related to the lecturers views about competition. In the beginning of the project, Diego and Pri did not believe that a competition could be used for an educational purpose. The relationship of trust and interdependence between the lecturers that emerged in the weekly collaborative lecturer group meetings were essential to overcome this challenge. In a similar way to Diego and Pri educating Carla about AG, Carla educated Diego and Pri about SE. Diego and Pri had no previous experience in SE and were particularly challenged by the role of competition in SE. Such an example occurred when Pri realized that competition could be used for an educational purpose:

Pri: I'm getting more and more delighted with the model. I believe now they [students] can enjoy a competition of gymnastics!

Diego: Yeah.

Carla: Felipe said: ‘Today I understood why the gymnasts wear shorts’. Diego: I am so happy he learned that.

Carla: He said it is because he, as judge, could not see the knee of the gymnast that was wearing pants.

Pri: Yeah. That is so cool.

Diego: I told Felipe that even when the gymnast wears pants, his/her pants have to be tight to his/her body.

Pri: That's why I'm telling you how SE is cool. If they do not live the competition, there is no use of ten thousand lectures; they will not know what it means. If they do not live, they're going to say ‘Wow, gymnastics is very difficult, right?’ What I think is making more sense to me is thinking about gymnastics as a sport and competition is something very strong in sport. This model is giving me several ideas to teach gymnastics in the future (lecturer group meeting - lesson 8)
What was clear in this vignette was the relationship of trust and interdependence in a learning community between the lecturers who implemented SE and AG. Although Carla had no previous experience with AG, and Pri and Diego had no previous experience of SE, they were patient and respectful of each other’s experience.

**Vignette 2: 'Learning to trust our peers has been so cool and important to me’: the community support to overcome fear**

This vignette highlights how students created a safe environment that allowed them to overcome fear. In the first six classes, the students described in their reflective diaries the fear of competing in AG:

I was uncomfortable in this class. I felt uncomfortable in performing the movements in front of my peers, uncomfortable for not feeling confident in performing the movements, uncomfortable for perhaps getting out of my comfort zone. I think this class challenges me to think, to critique, to reflect, contributing to my personal growth (Beatriz, diary – lesson 2).

Although all lecturers strived to organize a fair and co-constructed competition with students, the fear of exposing themselves in front of the whole class remained strong for the students. The coaches and peers helped create a safe environment that allowed the students to overcome their fear:

I confess I'm a little scared of the lessons. My experience is in team sports. I always ran away from gymnastics classes. To improve my training I decided to enrol in this class and face my fears. My friends have helped me a lot in class, especially Gisele, our coach. Gisele is the most experienced in our team and she has taken care of everyone in the group (Antônio, diary – lesson 1).
In this class I realized the different reactions within my own group. Some were afraid or ashamed and did not even try some exercises because of the difficulty. Others, even in fear, were motivated and wanted to try. As a coach of my group I was thinking a lot about it, in the tenuous line that exists between the challenge that motivates and the challenge that discourages and harms. Finding this limit is my challenge!

(Ivana, diary – lesson 2)

The peer coaches were essential in negotiating students' fears in the first two classes. The coaches described how they felt responsible for their team. However, relationships of interdependence among other members of the team began to be created from the third lesson. An example of this was the relationship between Maiara (a choreographer) and Beatriz (a journalist):

I found this class very interesting because we helped each other. Beatriz always helped me with my gigantic limitations, and I helped her with her fear. It was really cool for example when she managed to make the handstand almost without my help and how happy she was with it, since she was afraid even of ‘turning upside down’. I think I have already reported this in the previous diary: learning to trust our peers has been so cool and important to me (Maiara, diary - lesson 3).

Doing the activities with Maiara is very good for me because she supports me, helps me, and besides, she inspires me by her willpower to overcome her limitations, fears and insecurity. Although she does not help me too much technically, she inspires me - a life lesson (Beatriz, diary - lesson 3).

Students began to trust their teammates and described how they began to overcome their fear. They improved their body awareness and help from peers was described as the reason for this. Regardless, two students quit the competition as gymnasts because they did
not feel comfortable to compete and chose to take on important organizational roles with great commitment:

I did not feel comfortable with the situation of exposing myself as a gymnast. I think I made the right choice. However, from the outside, it is clear that we planned a well-organized and structured competition and that I did not harm my team by not performing as a gymnast. I am working a lot as manager. I believe I was not the only gymnast to be uncomfortable with the situation, but I made the decision not to compete. A decision that seemed to have been widely respected by you [lecturers].

Thank you lecturers for this! (Mauro, diary - lesson 9)

In this vignette we described how students created a safe environment that allowed them to overcome fear. At the beginning of the season, the safe environment evolved between coaches and gymnasts. As the season progressed all organizational roles started to be involved and students helped each other. The few students who quit the competition as gymnasts were engaged in the competition.

Vignette 3: ‘Expectation versus reality’: negotiating the different levels of engagement

This vignette refers to how lecturers and students negotiated the different levels of students’ engagement during the season. From the beginning of the season, students described the process of negotiating different levels of participation:

In today's class the journalists came together to talk and it was amazing because while Carla explained what she wanted, a thousand and one ideas were popping up in my mind. However, curiously, when the other five journalists began to speak, my excitement went downhill. They wanted to do the easiest thing, the least effort. In that sense, my ideas for Facebook posts were unanimously rejected - expectation versus reality! (Beatriz, diary - lesson 3)
One of the last groups to go through my station was the one that gave me more work. The students could not concentrate and were joking. I called the attention of the group, which for me is always discouraging. At the end of the class I mentioned the lack of concentration of some classmates and said that this limits the quality of our class. I did not say names, but a classmate took offense and we ended up arguing (Gisele, diary - lesson 2).

While some teams and students were fully involved, other students were not so committed. These differing levels of engagement were evident to the lecturers from lesson four:

Pri: We gave them [students] time to practice the routines and they asked us: ‘practice what?’ We said: ‘practice for the apparatus you will perform (floor exercise, balance beam and vault)’. Most students found this interesting, but some of them just left the class. The idea was to stimulate their sense of responsibility for practicing. It was very clear to us that the team that Gisele coached was very much performing as a team.

Diego: Gisele puts herself in the coach’s role.

Pri: Her team was a team! Other teams also practiced the routines, like Ivana’s team, but quickly dispersed (lecturer group meeting - lesson 4).

The classes were designed to be democratic, co-constructed and subsequently expect a level of student responsibility. Responsibility and autonomy were required in organizational functions and in gymnast performances. At the start of the season, the students did not understand what would happen in the class and the importance of being responsible and autonomous:

Carla: I think the managers are not committed and I believe it will be a challenge.

Today I talked to Julia individually and told her, ‘Julia, we need you’. I believe that if we have Julia on our side, we’ll be able to bring in the other managers.
Diego: The day I talked to the managers, I said: ‘You're responsible for everything; you need to think about the apparatus, the judge, and others’.

Carla: They need to decide where the gymnasts are going to warm up! And all this I think should already be ready.

Diego: I do not think they organized all these expectations

(lecturer group meeting - lesson 7).

In the beginning of the season, the students understood the importance of their participation. The students understood that the organization roles were essential to run the competition:

The competition really happened!!! My participation as a gymnast was innocuous ha ha ha. In the beginning I was more productive... organizing my colleagues’ hair, face and our mascot (so cute) ha ha ha. But in the competition itself, since I'm not a good gymnast, I was just performing. However, I was looking for incredible pictures and several ideas for publishing on Facebook (Beatriz, diary - lesson 9).

Yesterday I was talking to Beatriz about her role as a journalist, and how the other journalists were not so committed. We figured we would not care about that. Our team will have a journalist and a social media person! We are going to post every week. It's going to be a little bit of work, but I hope this will motivate the students to use Facebook a little more. If it does not work, we do not really care, because we're having a great time with all this, and we are getting together!

(Maiara, diary - lesson 6)

Today I realized that my involvement was very important. I am a judge and so I had a crucial role in making the competition follow the schedule without delays. I think this lesson was the culmination of my protagonism as a student and I felt very motivated.

It is nice to point out that because of this protagonism and my connection with the
activity and my colleagues, the class time went superfast. I could take classes like this
every day and I would not get tired (Victor, diary - lesson 9).

Managers, journalists, coaches, judges and choreographers realized that they had a
crucial role in the competition element. However, the different levels of students’
engagement during the season had to be continually negotiated. While the more involved
students seemed unmoved about students with less engagement, lecturers were frustrated at
their meetings about the low participation of some students. In the culminating event, three of
the six teams competed with all members of the team as gymnasts. In the three remaining
teams, a few students were missing on the day as they were not comfortable to compete as a
gymnast.

Vignette 4: 'I'm afraid of what we did. Diego as judge disempowered our students': dividing
our communities of learners

This vignette highlights how lecturers and students evolved to form two communities
of learners. After lesson 11, the lecturers were describing the challenges that emerged in the
lesson and how they disempowered their students:

Carla: In your opinion what was the main challenge in today's class?

Diego: I think it was the judges! One of the judges said to me ‘Your scores were very
strict’ and I said, ‘No, I have scored according to your code of points’.

Carla: We put you in as judge because you are an official national judge, but we
started to realize that your scores were very strict. So, you wrote ‘no, no, no’ on the
scoresheet to the managers not considered the scores of the other judges.

Diego: I know... Pedro was so upset and said to me: ‘So we judges are not good for
anything?’ Then I said, ‘No, your scores served all these days, but today is a final’.

Carla: I'm afraid of what we did... If the idea of this model is to empower them to
perform the organizational rules, I think Pedro's reaction is making us to think that we made a huge mistake. I think today we have disempowered our students, unfortunately! I do not think we should have done that. We should at least consider an average of the scores.

Diego: I agree! I did not know what to say to the students in this moment

(lecturer group meeting- lesson 11).

At the end of the lesson, Carla and Diego were talking about the mistake that they made. Although the lecturers had intended to contribute to a fair competition, they realized that they had made a mistake. Diego and Carla felt that they were disrupting the competition that was co-created by the students. Many students stayed at the end of the class arguing with Diego and Carla that the peer judges' scores should be considered:

I do not know if I should give my opinion, but I think it would be important to think for the next time. Diego did not participate in the previous scoring, and then it ended that yesterday his scores were the only ones considered in our competition, which I did not find correct, because it takes away the importance of the judges who were responsible since the beginning of the competition (Beatriz, diary - lesson 11)

The co-creation of the code of points and the co-organization of the entire competition with students may have contributed to the students becoming a community. This incident highlighted that lecturers and students were not one community of learners. The lecturers understood that the students became autonomous in organizing the competition and became a community of students. The lecturers decided to not participate as judges in the culminating event. They observed the competition and the students made decisions in the competition without consulting the lecturers.
The aim of this study was to capture the complexity, tensions and struggles lecturers and students faced delivering and experiencing an authentic SE season within learning communities. In this section, we discuss: (a) the complexity of teaching AG through SE; (b) the tensions and struggles between lecturers, between students, and between both groups; and (c) future directions.

The Complexity and Teaching AG through SE

We observed the complexity of teaching AG through SE. SE literature tends to focus on studies of team sports (Araújo et al., 2015; Braga and Liversedge, 2017; Brock and Hastie, 2017; Hastie et al., 2017; Hordvik et al., 2017) with significantly less literature on individual sports such as athletics (Pereira et al., 2015) and CrossFit (Ward et al., 2017). There is a lack of studies that discuss the challenges of teaching acrobatic sports (e.g. gymnastics, synchronized swimming, trampoline). For this type of sport, the most important factor is the quality of the movement. The complexity of teaching AG through SE was evident in the extensive pre-season presented in this study (8 weeks). This complexity focused primarily on how we modified the activities so most students could learn and be successful. Lecturers and students collectively agreed on choosing to focus on floor exercise, balance beam and vault. Students commented that they believed they would be more successful at these than the other apparatus choices. Lecturers and students also co-created a code of points and the dynamic of competition in such a complex process was evident through the shared negotiation between lecturers and students. The training of the judges was another challenge in the complexity of teaching AG through SE. It took an extensive pre-season to prepare the two judges: ‘D-score’ that evaluates the content of the exercise and ‘E-score’ that evaluates the
performance and artistry of the routine. It was a complex process that demanded time, given
the difficulty of preparing the two judges. Finally, while the lecturers motivated the students
to compete, they did not force them to do so. The lecturers were cognisant of the level of fear
that some students had to negotiate in performing in front of their peers. It is important to
note that besides the extension of the pre-season, an important factor to negotiate the
complexities of teaching AG was the lecturers’ significant amount of experience in
gymnastics. Pri and Diego had more than seven years of experience coaching AG and as
national AG judges.

Even though studies have not discussed challenges of teaching individual sports using
SE, others have examined challenges related to the SE model. For example, Braga and
Liversedge (2017) examined undergraduate students’ perceptions of the challenges associated
with the implementation of SE. Findings indicated that students consistently reported the
complexity of spending time and energy on planning, establishing fair teams, and assessing
student learning. Although the authors described the challenges regarding the process of the
implementation of a SE season, there is a need for studies to discuss the complexity, tensions
and struggles of experiencing SE.

Tensions and struggles between lecturers, between students, and between both groups

The process of delivering SE in an AG context revealed tensions and struggles
between lecturers, between students, and between both groups. For lecturers, mutual trust,
respect and support were key enablers in a complex process of delivering an authentic SE
season within a learning community. Although Carla had no previous experience with AG,
and Pri and Diego had no previous experience of SE, they were patient and respectful of each
other’s experience. Carla trusted Pri and Diego in relation to the development of the code of
points and the drawing activity. In the same way, Pri and Diego trusted Carla regarding the educational purpose of the competition element. In the weekly meetings and informal conversations (e.g. email, WhatsApp, phone and Skype), the lecturers shared challenges they faced and negotiated their fear in relation to learning new content (SE and/or AG). Mutual trust, respect and support were essential because learning is supported by conversation and stories about problematic and especially difficult cases (Lave and Wenger, 1991; Patton and Parker, 2017; Wenger, 1998). By sharing the challenges, the lecturers gained confidence in themselves and recognised the quality of the work they were doing with the students. The lecturers developed a learning community nurtured with mutual trust, respect and support, essential to negotiate challenges that emerged – a key characteristic for professional learning communities (Bolam et al., 2005; Fletcher and Bullock, 2012; Parker et al., 2010; Patton et al., 2013; Tannehill and MacPhail, 2017; Yoon and Armour, 2017).

In terms of students’ engagement and participation, different levels in relation to SE and AG learning were observed. While some teams and students were fully involved as gymnasts or in organizational roles, other students were not so committed in these learning processes. The lecturers were frustrated at their meetings about the low participation of some students, especially with respect to being involved as gymnasts. According to situated learning theory, initially, people have to join communities and learn at the periphery (Lave and Wenger, 1991; Wenger and Wenger-Trainner, 2015; Wenger et al., 2002). As they become more competent they become more involved in the main processes of the particular community. They move from legitimate peripheral participation to full participation. In the present study, the students moved toward full participation in relation to SE and AG learning. At the start of the season, most of the students understood the importance of their participation in the organization roles. However, in the culminating event, three of the six teams competed with all members of the team as gymnasts – some of the students were not
comfortable to compete as gymnasts and decided to contribute solely in the organizational roles. The students who did not compete as gymnasts performed essential roles for the development of the competition (e.g. the two most effective students in terms of organizing the competition did not compete as gymnasts). Therefore, performing organizational roles and not competing as a gymnast allowed students remain engaged in an important role for the group, changing their location in the learning community, as described by Kirk and MacDonald (1998), Kirk and Kinchin (2003) and Tannehill et al. (2015).

Lecturers and students developed into two separate communities of learners. The students became autonomous in organizing the competition and became a community of students. In creating communities of learners, the authors describe the challenges that arise in the relationship between master and apprentices (Lave and Wenger, 1991; Wenger and Wenger-Trayner, 2015; Wenger et al., 2002). Accordingly, there is very little observable teaching and the most basic phenomenon is learning. The practice of the community created a potential ‘curriculum’ that which may be learned by newcomers with legitimate peripheral access. It seems typical that apprentices learn mostly in relation with other apprentices. In the present study, the students did not sufficiently engage with the lecturers to encourage one community. For example, few students participated in the closed Facebook page created for the lecturers and the students to share information about the season. The lecturers endeavoured to show the students that the teaching and learning process should be an ‘open classroom’. Rogoff, Turkanis and Bartlett (2002: 7) describe how children and adults learning by participating within a community of learners seek school improvement in an ‘open classroom’:

Adults are responsible for guiding the overall process and for supporting children’s changing participation in their shared endeavors. Adults provide leadership and encourage children’s leadership as well, and they learn from the activities in which
they engage with the children. This perspective thus eliminates the dichotomy of
adult-controlled learning versus children-controlled learning; it substitutes a quite
different arrangement in which children and adult are partners rather than adversaries.

While the lecturers attempted to create an open classroom, the students were
previously never exposed to that or taught how to engage in this type of class environment.
One of the students shared at the end of the study, ‘this way that you [lecturers] taught this
class was never experienced before in our course. At the beginning we thought you were
crazy teaching in this way because most lecturers tell us what to do’ (Pedro). The lecturers
did not discuss with the students the traditional student-teacher power relationship and the
importance of considering students and lecturers as partners rather than adversaries. The fact
that Diego disempowered the students by undertaking the role of a judge created a conflict
between the lecturers and the students that was not resolved until the culminating event where
the students took sole decision-making responsibilities. The relation among the members of
the community (students and lecturers in our case) is multifaceted; the relationship is not only
focused on getting the task done but also involves relating to each other as people and
attempting to resolve inevitable conflicts in ways that maintain relationships (Rogoff et al.,
2001).

Future directions

Based on the limited amount of research on communities of learners in SE and
findings from this study, future studies should continue to examine the effectiveness of a
community of learners within the SE context and specifically encourage lecturers and
students to work together as one learning community, learning from, and with, each other.
Our recommendations would be to continue with the same group of students, mapping
learning trajectories in the following years and considering the influence of time in the
process of becoming one community. A second SE season with the same group would allow
the students to experience and understand that lecturers and students can, and should, operate
as one learning community, engaging in the process of constructing an open classroom.
Another possibility would be to combine SE with critical and/or cultural pedagogical models
(e.g. cultural studies or activist approaches) as a way in which to instructively explore the
traditional student-teacher power relationship. In this way, lecturers and students could
identify, critique and transform these historically constructed power relations through
engaging collectively as one learning community. We believe that this study provides
direction to readers interested in conducting action research and SE, recognizing messy as
part of the research and legitimizing the positive role it plays in creating depth and rigour
research process.
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Table 1: Description of the key features of SE and how they were introduced in each lesson

<table>
<thead>
<tr>
<th>Key Features</th>
<th>How achieved in each lesson</th>
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<tbody>
<tr>
<td><strong>Seasons</strong> - sport is undertaken in seasons. A season implies a longer time period that includes a practice period, a pre-season, a regular season and a post-season with a culminating event.</td>
<td>Three seasons took place across 13-week unit: 8 weeks in pre-season, 4 weeks in regular season and 1 week in post-season/culminating event.</td>
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<tr>
<td><strong>Affiliation</strong> - students remain members of the same team for the entire season. Affiliation is defined as the development of feelings of identity, the sense of belonging to a team, and the growth of social skills.</td>
<td>The students were organized in 6 teams (China, Refugee, Japa-Spain, Jamaica, Hogwarts and Madagascar), choosing their own team and names and remaining in the same team for the entire season.</td>
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<td><strong>Formal competition</strong> – students make many of the decisions that determine the structure and operation of the season. A formal schedule of competition allows each team and its participants to make short-term decisions for the season.</td>
<td>The students were encouraged to undertake an additional role to that of participant: coach, manager, journalist, judge, or choreographer. During the season, the teams performed in qualifications, all-round finals and apparatus finals (floor exercise, balance beam and vault). In the post-season all teams performed in team finals.</td>
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<tr>
<td><strong>Culminating event</strong> - the season ends with a culminating event. This event should be festive and allow all students to participate.</td>
<td>On the final day (Festival day), the students performed in team finals. Medals were awarded to all students. The students also organized an event to award medals for most improved player, best organizational rules, and other achievements.</td>
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<td><strong>Record keeping</strong> - there is extensive record keeping. Game statistics can be used by coaches and participants to analyze their own team strengths and those of their opponents</td>
<td>Each team had two judges: D-score (or Difficulty score) that evaluates the content of the exercise and E-score (or Execution score) that evaluates the performance and artistry of the routine. They recorded team and individual statistical performances during the competition.</td>
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<td><strong>Festivity</strong> - sporting events are known for being festive. Teams have names that become part of their tradition and add to the lore of the sport. In that sense, lecturers need to find ways to help students learn to celebrate their participation in sport activities by creating a festive atmosphere</td>
<td>The students were encouraged to discuss and agree a team name, color and slogan. All materials produced were posted and commented in a closed Facebook page.</td>
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Table 2: Description of the diary entries that align with the concepts of legitimacy, peripherality and participation

<table>
<thead>
<tr>
<th>LPP concepts</th>
<th>Diary entries</th>
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</thead>
<tbody>
<tr>
<td><strong>Legitimacy</strong></td>
<td>1. At what points in the lesson did you feel your involvement mattered to your team? What roles and responsibilities did you experience in the lesson?</td>
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<td></td>
<td>2. What activities in this lesson resulted in you feeling more involved as part of the Artistic Gymnastics Sport Education lesson?</td>
</tr>
<tr>
<td><strong>Peripherality</strong></td>
<td>3. What instances/experiences led to some people being more involved than others in the lesson? Did you still feel you were contributing to the lesson?</td>
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<tr>
<td><strong>Participation</strong></td>
<td>4. What instances resulted in you having to negotiate possible decisions with your peers? Did people have differing beliefs on what to do in the lesson?</td>
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<td></td>
<td>5. What routines and ways of doing things are common practices in the lesson?</td>
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</tbody>
</table>