

Physical Education Teachers' Top Tips for Using Cooperative Learning to Teach Secondary School Physical Education

Victoria A. Goodyear

With teachers from:

The Buckingham School: Leigh Churchward, Vicki Scholes, Andy Minns, Caroline Collie, Vikki Keeping and Steve White, and Birchwood High: Darren Jones and Vicki Foulger

In the recent edited monograph 'Cooperative Learning in Physical Education', Cooperative Learning was defined as a student-centred pedagogical model, which "enhance(s) student development, interaction and task mastery within the physical, cognitive and affective domains" (Casey and Dyson, 2012 p.173). Teaching physical education through the Cooperative Learning model creates an authentic learning environment, develops young people's interpersonal skills and has been reported to enhance young people's engagement with and participation in physical education (Dyson and Casey, 2012; Goodyear, Casey, Kirk, 2012). Thereby, the Cooperative Learning model is one way for practitioners to move beyond the traditional approaches to teaching physical education where the aims and aspirations of many international curricula are more likely to be met (Dyson and Casey, 2012).

Despite the increasing advocacy for the use of Cooperative Learning (Dyson and Casey, 2012), learning to teach through Cooperative Learning is not easy (Casey, 2012a, 2012b; Owens, Dyson and Smith, 2012). Teachers are required to plan for, and implement, a number of non-negotiables (see Table 1). The non-negotiables are a selected number of benchmarks (Metzler, 2011) and critical elements (Casey and Dyson, 2012), which

define teacher and student behaviour. When learning to implement the non-negotiables, teachers have reported feeling out of their comfort zone; they have found it difficult to

change their hierarchical role as the provider of knowledge and the process has been described as both difficult and time-consuming (Casey, 2012a, 2012b; Velázquez-Callado, 2012).

Table 1: The non-negotiables

Heterogeneous groups: students work in mixed ability, gender and social relations in pairs or small groups (four to five members) for the duration of a unit.

Group goal: students work in pairs or small groups to achieve group goals in the physical, cognitive and affective domains.

Teacher facilitator: students learn from each other rather than the teacher.

Positive interdependence: students are dependent on each member of their group participating and completing tasks to be able to achieve the group goal.

Individual accountability: students are assessed on their contribution to group work and/or their performance.

Promotive face-to-face interaction: students have positive interactions with members of their group, they encourage one another and demonstrate good interpersonal skills.

Group processing: at the end of the lesson the group members reflect on what they have learnt and how they can improve their ability to work as a group.

Cooperative Learning structure: the teacher selects a defined structure from the Cooperative Learning model.

The purpose of this paper is to provide a how to guide or some top tips to support practitioners learning to teach physical education through Cooperative Learning. The voices within this paper are of eight teachers who have been using Cooperative Learning to teach physical education in two secondary schools in the UK for the past 12 months. The silent voice in this paper is my own, a collaborative-action researcher (Goodnough, 2010) who has been working with the teachers in their schools as part of my doctoral research. Drawing upon their experiences, this paper reports on what they perceived would best inform fellow practitioners wanting to use Cooperative Learning to teach physical education. The following sections of this paper provide some top tips that we hope will help others to use this approach with their students.

Tip one: trial different non-negotiables

A top tip would be to trial different non-negotiables, you need to have a go and understand what the non-negotiables are before you embark on doing a unit of Cooperative Learning.

(Vicki S)

Before the teachers taught a whole unit of activity through the Cooperative Learning model they completed two tasks over a three-month period. The first task involved teachers trialling the non-negotiables (Table 2). They began by selecting two or three of the non-negotiables and using these in some of their lessons. After they had finished teaching, they would reflect on the lesson and share their experience with each other either face-to-face or through the online community 'The Physical Education Practitioner Research Network' (PEPRN, see www.peprn.com). In the subsequent lesson, they refined how they had implemented the chosen non-negotiables. This process was repeated until teachers had trialled most of the non-negotiables and they felt that they had a good understanding of how to use them with different classes and in different activities on their curriculum.

The second task involved teachers experimenting with different structures within the Cooperative Learning model (Table 3) such as Jigsaw, Think-Share-Perform or Learning Teams (see Dyson and Grineski, 2001). This enabled them to gain an understanding of how to use these structures and they began to develop an understanding of what structures they would use to teach different activities.

Table 2: Example task for the trialling of the non-negotiables

Cooperative Learning non-negotiables

Choose two of the non-negotiables and teach a lesson using these.

After this lesson consider:

- what went well?
- what would you change for next time?

Teach a second lesson. Modify what you did and include another non-negotiable. After this lesson, consider what have you learnt about these non-negotiables that will help you to teach through the Cooperative Learning model.

Table 3: Example task for the Cooperative Learning structures

Cooperative Learning structures

Plan and teach a short unit using one of the structures (one or two lessons).

Following each lesson in the unit, reflect on the lesson and consider how you implemented the structure and the non-negotiables.

After the short unit:

- interview a small group of your students to gain an understanding of their experiences of the lessons
- comment on the PEPRN discussion board 'The Cooperative Learning Model: The Structures'

Tip two: prepare your students for learning in a new way – lesson zero

'Lesson zero' (Casey 2010) occurs before the unit begins and focuses on the development of group work skills. The objective of lesson zero is also to provide students with a clear outline of how they are expected to work together with a new format for their lessons. The teachers suggested a lesson zero as a means of supporting students in being able to work as a team and complete tasks.

The lesson zero I did with my Year 7s was very much a step-by-step guide of how they would work in their learning teams and what learning teams were. They had their folders and we went through the unit. I would say your lesson zero really does need to be specifically geared towards the structure, whether that be learning teams or jigsaw – otherwise students don't understand the process of it or how they set their learning up.

(Vikki K)

Tip three: you shouldn't be afraid to go back to a lesson zero

Don't automatically assume that because you split them into groups of four or five they will work together well.

(Steve)

Team building activities can be used and a unit paused if students are having problems with communicating with each other.

(Vikki K)

We had to do it with our Year 7s when the cooperation wasn't there.

(Vicki S)

Even after completing a lesson zero, students may not understand how to or be able to work together effectively. It takes time for students to adjust to this new way of learning and a unit may need to be paused for one lesson

or a number of lessons to develop students' understanding of how to learn within the Cooperative Learning model (Casey, 2012a; Casey and Dyson, 2009). Andy and Vicki S found that pausing a unit to reinforce and further develop students' understanding of how to work together, how to act in the role of the coach and how to reflect during group processing enhanced students' ability to work together in order to learn.

They almost needed a few lessons of the unit being paused where they needed to learn how to coach and teach again because when it was their turn to coach they weren't following the basics, they weren't getting everyone in and they weren't making sure that everyone was listening to them. So we paused it and I took more of a teacher-led session and we went through what makes a good leader and a coach and they practised small tasks. Their coaching ability improved next time around as a result of it.

(Andy)

I would give them five minutes to do their group processing and then they would be finished in 30 seconds. So I went through it with them and I said what did you do well and they said communication, and then I said what does your group need to improve on, and they said communication. So I went back and I completely stopped the lesson and I think I spent a good 15-20 minutes on what I expect from group processing. They had the sheet with the questions on and we went back to everyone had to talk and everyone had to say something. We looked at specific details on what they needed to target for the following lesson, we went through things like they needed to all listen to each other, cooperate, help each other out and then I did an example of what group processing should look like.

(Vicki S)

Tip four: learn to take a step back and facilitate learning

In the first couple of lessons it is adapting the way you teach, you have to learn how to facilitate and see what is going on, rather than diving in there and giving them the answer quicker. It is about guiding them to the answer and encouraging them to discover it together working as a team.

(Vicki S)

Learning to facilitate learning rather than telling students what to do or how to do it has been one of the non-negotiables the teachers have found most difficult to adapt to. Facilitating learning not only relates to students' cognitive understanding or their physical performance but developing their ability to work together to learn and affording them the time to discover things for themselves (Casey, Dyson and Campbell, 2009).

To begin with, your open-ended initial questions need to start with: 'how', 'why', 'if' or 'how could you improve this?'
(Andy)

I had to really think about key times when I would sort of come into the lesson and say well 'what do you think about x?', 'what do you think about y?'
(Steve)

I needed to plan more carefully what I am actually saying to students to get the point across without directly telling them the answer.
(Darren)

I would try and write out questions that I wanted to focus on...or you could have a little notebook with you on what questions you are going to keep asking.
(Vicki F)

Tip five: be prepared to let go and don't worry if it doesn't go all right; it is part of the learning process

In their work on Cooperative Learning both Casey (2012) and Dyson (2001, 2002) have shown that it takes time to learn to teach in a new way and it takes time for students to learn in a new way. The teachers here suggested that, in order to persist with a new approach to teaching, you need to take some risks and be aware what students do may be different from what you expect.

Be prepared to take some risks and know that it might not necessarily always be successful. It might not always work first time round or they might not always achieve as much in a lesson compared to if it was completely teacher-led because although they are actually learning more you don't necessarily see it initially, particularly in the first few lessons because they're learning about themselves more – but then eventually you see it fitting into place.

(Vicki S)

Initially drop your expectations of what you think an actual drill should look like because they will set something up which is to them absolutely amazing – they have led it, they have set it up, but to you it looks like an absolute mish-mash. When you actually go and talk to them they have actually put a lot of thinking into what they have done. So don't have high expectations of them to begin with and maybe get them to question their set up at a later stage.

(Vikki K)

Tip six: reflect on your lessons

After each lesson taught, the teachers used the Post Lesson Teacher Analysis Tool (Dyson, 1994, Table 4) to reflect on their lessons. They suggested that reflection enabled them to develop their own understanding of how they were implementing the non-negotiables during and beyond the teaching of the first unit. Furthermore, reflection developed their understanding of how they could progress their students' learning.

Reflection allows you to take into account the successes and failures of your lessons. It is a trial and error process but the reflection element allows you to improve the quality of your outcomes by making small pedagogy changes – whether that be by modifying the format of the lesson, the quality of your questioning or focusing on specific elements of the lesson such as cognitive, social or physical competencies of the students and then making tasks and resources more appropriate for them.

(Leigh)

Tip seven: take time to prepare resources

To enable students to work together to learn, Dowler (2012) suggested that effective resources with series of tasks encourages face-to-face interaction and supports learning. Moreover, Velázquez-Callado (2012) suggests that resources facilitate individual accountability and they can help to ensure that students remain on task. For a number of units teachers planned resources that contained key teaching points, step-by-step instructions and progressive tasks. Furthermore, learning teams often had a folder in which was outlined the responsibilities for performing in different roles, a role rota, group processing questions and team score sheets. In support of Dowler

Table 4: Post Lesson Teacher Analysis Tool (Dyson, 1994)

Date.....	Time.....	Class.....
1. What were your goals for the lesson?		
a) Teacher		
b) Pupil		
2. What did you see in your lesson that met your goals? Be specific.		
a) For you as a teacher		
b) For your pupils		
3. What were the most positive aspects of the class?		
a) For you as a teacher		
b) For your pupils		
4. What aspects did you feel did not go well?		
5. What changes would you make to the lesson the next time you teach it?		
6. Learning outcomes: did you see learning occur? Specifically what? For all students? (motor, cognitive, social, self-esteem)		
7. What are your specific goals for the next lesson? What strategies will help you achieve your goals?		
a) Teacher goals		
b) Pupil goals		

(2012) and Velázquez-Callado (2012), the teachers have suggested that prior planning and effective resources are essential for teaching through Cooperative Learning.

If you provide a good quality resource then it automatically enables you to not get involved with the groups because they can understand the resource, they understand the steps that they need to do and they understand the activity.... If you [also] put questions on your resource cards as a separate box then you don't even have to deliver them to the pupils. Rather than you having to interject and formally question you can enhance and deepen their discussions that have already begun.

(Leigh)

Tip eight: choose wisely when you will do your first unit of Cooperative Learning

Comparable to any other units taught in physical education, units and lessons might often be affected due to extraneous factors such as the weather (Ovens, Dyson and Smith, 2012). Furthermore, it is important to remember that within the "busyness of school" (Casey, 2010) teachers often have extraneous responsibilities other than their lessons which can sometimes greatly impede upon the time that can be invested in learning to teach in a new way (Casey, 2010; Ovens, Dyson and Smith, 2012). In order to be able to overcome these factors, and particularly when trying to use Cooperative Learning for the first time, Vicki F suggested:

I think other teachers need to think about what other responsibilities they have got at that time – have they got moderation, have they got sampling to be doing like BTEC or are they away on trips, or what is the weather going to be like. I think when you are trying to get your head around it you have got to have consistency otherwise it is hard for them and it is hard for you.

Summary

This paper has outlined a number of important recommendations for physical education teachers when using The Cooperative Learning model. The main message is that learning to teach through Cooperative Learning takes time and it is also a gradual process for students to learn how to learn through the model. We hope that by using these top tips you, as practitioners, can successfully implement the Cooperative Learning model in your school and meet the outcomes of developing learning in the cognitive, physical and affective domains.

References

- Casey, A. (2010). Practitioner Research in Physical Education: Teacher transformation through pedagogical and curricula change. Unpublished PhD thesis. Leeds Metropolitan University.
- Casey, A. (2012a). Cooperative Learning through the eyes of a teacher-researcher and his students. In Dyson, B. and Casey, A. (eds) *Cooperative Learning in physical education*. London: Routledge, p.75-87.
- Casey, A. (2012b). Models-based practice: great white hope or white elephant? *Physical Education and Sport Pedagogy*, iFirst Article.
- Casey, A. and Dyson, B. (2012). Cooperative Learning in physical education. In Dyson, B., & Casey, A. (eds) *Cooperative Learning in physical education*. London: Routledge, p. 166-175.
- Casey, A. and Dyson, B. (2009) The implementation of models-based practice in physical education through action research, *European Physical Education Review*, 15(2) p. 175-199.
- Casey, A., Dyson, B. and Campbell, A. (2009). Action research in physical education: Focusing beyond myself through cooperative learning, *Educational Action Research*, 17(3) p. 407-423.
- Dowler, W. (2012). Cooperative Learning and interactions in inclusive secondary school physical education classes in Australia. In Dyson, B. and Casey, A. (eds) *Cooperative Learning in physical education*. London: Routledge, p.150-165.
- Dyson, B. (1994). A case study of two alternative elementary physical education programs. Unpublished Doctoral Dissertation, Ohio State University.
- Dyson, B. and Casey, A. (2012). *Cooperative Learning in physical education: a research based approach*. London: Routledge.
- Dyson, B. and Grineski, S. (2001). Using cooperative learning structures in physical education, *The Journal of Physical Education, Recreation and Dance*, 72(2) p.28-31.
- Goodnough, K. (2010). The role of action research in transforming teacher identity: modes of belonging and ecological perspectives. *Educational Action Research*, 18 (2) p.167-182.
- Goodyear, V.A., Casey, A. and Kirk, D. (2012). Hiding behind the camera: social learning within the Cooperative Learning Model to engage girls in physical education. *Sport, Education & Society*, iFirst Article.
- Metzler, M. (2011). *Instructional models for physical education*. 3rd edn. Scottsdale, AZ: Horncomb Hathway.
- Ovens, A., Dyson, B. and Smith, W. (2012). Implementing the Cooperative Learning Model in physical education: The experience of New Zealand teachers. In Dyson, B. and Casey, A. (eds) *Cooperative Learning in physical education*. London: Routledge, p.15-26.
- Velázquez, C. (2012) Putting into practice Cooperative Learning and physical activity with primary school students. In Dyson, B. and Casey, A. (eds) *Cooperative Learning in physical education*. London: Routledge, p.59-74.

Victoria Goodyear is a former teacher of physical education and a final year PhD student studying the sustainable use of Cooperative Learning and the facilitators and inhibitors of implementation in schools. She can be found on twitter as @VGoodyear