

SPORT EDUCATION AND COOPERATIVE LEARNING FACILITATING GYMNASTICS IN PRIMARY PHYSICAL EDUCATION

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In traditional programmes of physical education (PE), multi-activity approaches see units of work planned over half-termly rotations with introductory lessons being taught (passing, tackling, shooting etc.) and put into a game before moving on to a new sport. In theory, these skills are transferable over an array of activities. Therefore, the idea of expanding and amalgamating units to extend to 12-plus lessons offers the opportunity for further progression and deeper levels of attainment. This is similar for movement-based subjects such as gymnastics and dance.

The primary National Curriculum for Physical Education (NCPE) provides teachers with three pages of criteria which work towards four overarching aims for both Key Stages 1 and 2. The curriculum allows plenty of freedom and creativity to those practitioners who have received in-depth training in how to deliver high quality PE. However, where there is a lack of confidence and content-knowledge, there is potential for the educator to resort to a 'copy me' approach which promotes the reproduction of the teacher's knowledge and moves away from producing competent learners through independence and guided discovery. Models such as Sport Education and Cooperative Learning provide educators with a 'how' to accompany the National Curriculum's 'what' to teach. Adopting a models-based approach allows educators to go beyond the traditional practice of PE and sport whilst moving away from 'one-size-fits-all' units (Bailey *et al.*, 2009). These models (Hastie & Casey, 2014, p.422) provide "a blueprint which describes certain procedures for organizing content, task structures and the sequencing of learning activities." Each model comes with specific "non-negotiable" guidelines that make each model unique whilst taking into consideration the three areas of pedagogy: teaching, learning and the curriculum.

This article is a reflection on how gymnastics can be taught to upper Key Stage 2 children where elements of the Sport Education and Cooperative Learning models were used to structure the unit which could be called 'Cooperative Sport Education'. Rather than suggesting how the two models can be hybridised, this article aims to discuss each model's key features and how their significant elements were utilised in different areas of a gymnastics unit to facilitate primary NCPE criteria.

SPORT EDUCATION

Sport Education is a models-based approach designed to provide students with authentic experiences that are thorough and enjoyable and contribute to their desire to become and stay active through their physical literacy journey (Siedentop, Hastie and Van Der Mars, 2011). "If the only reason students attend school is to prepare for life outside of school whilst enriching their lives along the way, then Sport Education can captivate students' imaginations and motivation at a young age by educating them on what sport can offer post formal education" (Forwood, 2018, p.27). Sport Education is an approach that showcases an array of benefits that sport can offer. The *Complete Guide to Sport Education* (Siedentop, Hastie and Van der Mars, 2011) provides an outstanding field manual for practitioners to learn about the model whilst supporting future delivery. It explains that the main goals of Sport Education are to create sports participants who are:

- **competent** (students develop sufficient skill to participate in games and activities and can execute strategies on the way to becoming knowledgeable players)
- **literate** (students understand and value the rules, rituals and traditions of the activities and have learned to distinguish between good and bad practices)
- **enthusiastic** (students behave in a way where they preserve, protect and

enhance sport culture in PE and extra-curricular youth sport and into post-education).

This is achieved through the model's key features: seasons, affiliation, record-keeping, formal competition, festivity and a culminating event. These key features help to define what must be in place for sport to be distinct from physical activity. Table 1 introduces Siedentop's key features (1994) and explains how they were used to ensure the gymnastics unit remained true to the Sport Education philosophy.

COOPERATIVE LEARNING

Cooperative Learning is a pedagogical model which has recently seen an increase in popularity, with physical educators adopting it to cover a wide range of curriculum content. To gain a deeper understanding of Cooperative Learning, *Cooperative Learning in Physical Education and Physical Activity: A Practical Introduction* (Casey and Dyson, 2016) is a good place to start.

Cooperative Learning focuses on students learning from, alongside and for each other in small, heterogeneous (mixed ability, gender, friendship, race etc.) groups to master subject knowledge whilst working towards a shared group goal. Slavin (1996) suggests that Cooperative Learning units place a large emphasis on these goals and the group's successes can only be achieved if all members of the team learn the objectives. When considering the evolution of the main idea of Cooperative Learning, what they see as the fundamental principle of the model, Casey and Kirk (In Press) suggest three iterations:

- The most important thing in Cooperative Learning is the concept behind the game (Orlick, 1978).
- The whole child is provided with opportunities to think about, learn about and enjoy movement with their peers (Grineski, 1996).

Table 1: Key features of Sport Education and the gymnastics unit

KEY FEATURES	DESCRIPTION
Affiliation	Students were placed into heterogeneous groups and encouraged to become a team by creating team names, bringing in mascots, developing team chants and creating a unique team pose which would feature in their routines.
Record-keeping	Students were challenged to create a routine each week, which was judged by another team in the class. The points they were awarded in the peer-assessment went towards a league table which determined the overall champions of the season.
Formal competition	Every team had access to the unit's schedule which displayed the theme of the upcoming rounds. After completion of each round, the league table was updated and placed on display boards to allow students to see their progress. The winning team was the group who accumulated the most points. An additional team work league table ran parallel, where bonus points were gained for team work.
Seasons	The gymnastics unit lasted for 20 lessons, divided into three parts of the season: pre-season (where students learnt the concept of the unit and practised their roles and responsibilities), competitive season (where students went through six rounds of competition and were awarded points by other groups which contributed to the league table), and post-season (where students had free movement of the gymnastics equipment for the entirety of a lesson, followed by an awards ceremony).
Culminating event	The culminating event took the form of an awards ceremony where the students learnt who had won the season overall. Awards were given for a plethora of successes and accolades: certificates of completion, most improved gymnasts, gymnasts' gymnast of the season, teacher's gymnast of the season, team work award, best routine etc.
Festivity	The affective domain was encouraged through team chants and positive interactions such as high fives and cheering. Music played a large part in this unit and helped to structure the warm-up elements of the lesson. Music was also used as background noise which seemed to motivate the students whilst learning. In the plenaries, students were encouraged to clap and congratulate members of the class for their successes throughout the lesson.

- Together the groups are encouraged to develop a sink or swim mentality as a group (Dyson and Casey, 2016).

When reflecting on those three iterations, it becomes clear that Cooperative Learning has a wider focus than simply promoting the physical domain. Cooperative Learning considers the process which leads towards the final product and caters for the physical, social, cognitive and affective domains on its way. The concept of sinking or swimming together places an emphasis on the fact that all members of the lesson need to work together to achieve their highest potential.

Goodyear (2012) explains Cooperative Learning as having eight non-negotiables which must be in place for the lesson to be true to the model's ideology. One of these is 'Cooperative Learning Structure'. The cooperative aspect of this gymnastics unit used a 'jigsaw' learning structure. Casey and Dyson (2016) describe it as being where students are pieces in a jigsaw puzzle with each piece representing a desired skill or content that is put together with the other pieces from their home groups to make sense of the full picture. Without all the pieces being present, the desired picture is incomplete. Table 2 introduces Goodyear's (2012) non-negotiables and explains how they worked within this gymnastics unit.



Table 2: Non-negotiable features of Cooperative Learning and the gymnastics unit

NON-NEGOTIABLE	DESCRIPTION
Cooperative Learning structure	'Jigsaw' was used to achieve the desired lesson outcomes of creating a weekly routine. Students were placed in groups where each member was given a letter (A-E); they then joined with individuals from other groups who shared the same letter; each 'letter' group worked together to become experts who would then re-join their home groups.
Mixed-ability groups	Students were put in mixed-ability groups based on the knowledge of the PE teacher. Alongside abilities, groups were divided heterogeneously with each group having a healthy mix of genders, ethnicities and friendships.
Group goal	Each week the groups were given a routine theme to complete: flight, rotation, balances, floor skills, hand apparatus and vault. The group goal was to create a routine to display to another group in order to gain points.
Teacher facilitator	The teacher created Jigsaw resource cards with lesson content which included learning cues, images and differentiation, all of which the teacher would have used in more direct approaches. The students used these to learn the skills independently rather than directly from the teacher.
Positive interdependence	The students were dependent on every member of their groups to complete their own tasks and achieve the group goal for that week.
Individual accountability	Students were assessed on their contribution to their group work when their peers observed their routines. When the skill which they were responsible for was demonstrated, they were rewarded a point for completing their task.
Promotive face-to-face interaction	Students were encouraged to have positive interactions with members of their groups as they encouraged each other to share their learnt skill with their team. Students praised their partners and acknowledged their successful sharing of the skill.
Group processing	At the end of each Jigsaw lesson, students sat as a group (face-to-face, knee-to-knee) and reflected on the lesson, sharing their successes. They made notes of what they had achieved so far which would help in the following lesson.

ROLES AND RESPONSIBILITIES

Both Cooperative Learning and Sport Education promote students taking on roles and responsibilities to share the workload whilst ensuring the season's success in an independent manner. Table 3 shows the roles and responsibilities the students took on during the gymnastics unit.

In Cooperative Learning, it is common practice for students to take it in turns to perform these roles and rotate on a weekly basis. In contrast, Sport Education usually sees students maintaining their roles to see deeper development and create a team identity. In this unit, the teacher gave groups the opportunity to decide as a team whether to maintain or

rotate their responsibilities. Outside this, the students were expected to share roles and responsibilities which may have a larger presence in individual Cooperative Learning units, such as equipment manager, encourager and recorder. These were roles which could have a shared responsibility throughout the group through an established sense of normality.

Table 3: Roles and responsibilities undertaken in the gymnastics unit

Cooperative Learning (creating the routine)
Jigsaw expert group member: Students were assigned a letter (A-E) within their group; they would leave their home group and join with members of the class who shared the same letter to master lesson content together.
Jigsaw home group member: Students were required to return to their group to share their knowledge with their team to ensure they could meet the group goal to a high standard.
Sport Education (peer-assessing)
Judge: Each group required three judges to tick off criteria when displayed by the performing group.
Recorder: A member of each group recorded the sequence on an iPad.
Team manager: This group member made sure everyone was doing their designated roles and filled in if a team member was absent.

COOPERATIVE SPORT EDUCATION LESSON STRUCTURE

WARM-UP FOR BOTH LESSONS

Whilst the students were coming into class after getting changed, they were challenged to warm-up as individuals initially. This consisted of travelling for around ten seconds then changing to a different way of moving. Students were encouraged to skip, hop, walk tall on tip toes with arms and legs straight, caterpillar walk, frog jumps, bunny hops and more. This process was accompanied by music. They moved on to the next stage of the warm-up once the first song had finished.

In the transition between songs, students assembled in their home groups where

they took it in turns to hold a shape or balance for up to ten seconds before the next person moved on. If the lesson required an additional warm-up (e.g. rolling and jumping) students were prompted that those aspects might appear in the lesson and encouraged to add tuck rocks or on the spot jumps etc. to prepare accordingly. Once the second song had finished, the students moved on to the next part of the lesson.

LESSON ONE: JIGSAW COOPERATIVE LEARNING STRUCTURE

After the warm-up, students moved from their home groups to their expert groups (A-E). Any extra team members would be 'F' and encouraged to move between stations to support members of their team who might need it.

At their expert group stations, students had around 20 minutes to master a specific skill, working with the other experts in this group, in preparation for passing that skill to their home group members. A resource card, made by the teacher, provided step-by-step images and text to facilitate different types of learning. The text included details of how to complete the skill and offered ways the skill could be differentiated to suit students' different abilities. Students were encouraged to learn and practise all levels of the differentiated task to ensure members of their group could be challenged accordingly.

After 20 minutes, students returned to their home groups, with each member having learnt the specific elements that would make up their routine. The students collected a weekly criteria card featuring all elements from the A-E stations alongside group starting and finishing positions. There was scope to add elements from previous weeks' routines to reinforce previous learning. The students then had around 20 minutes to put their routines together.

LESSON TWO: SPORT EDUCATION AND PEER ASSESSMENT

After completing the warm-up, students had around 20 minutes to work in their home teams to complete and practise their routines. This enabled them to refine or amend elements whilst adding additional skills to showcase their talents.

After this 20 minute-period, students performed their final routines to a partner group. Initially groups were paired by the teacher and were told which would perform first. This evolved to the teacher only saying which group was working with which, and then to the teacher saying, "Performance time, you have 10 minutes," whereupon students found a different group to work with each lesson.

When a group was watching another group, they took on a judging role as a team, using three criteria sheets. They also recorded the

performance with an iPad. This was initially used to collect evidence; however, it quickly became an important aspect of the judging process, where the two groups could revisit the performance if there were discrepancies in the results. The fifth group member had a group manager role: they would fill in if someone was absent and contribute to the assessments.

After completing the routines, groups were encouraged to sit face-to-face and knee-to-knee to go through their results. This encouraged social interaction where feedback was provided positively. The scores were added to give that group their score for the week.

ENSURING CREATIVITY

PE should be a creative process, not merely a replication of a body of knowledge. It has the potential to allow both teachers and students enormous scope for creative endeavour (Lavin, 2008). Creativity can provide students with the licence to place a unique stamp on their work and this unique interpretation helps to meet the demands of a task (Price, 2008). It is important for students to explore the lesson content whilst maintaining a clear understanding that the process is a creative one.

In the gymnastics unit, students scored points when their peers observed the desired skills being displayed in their routines. The order of skill performance was not linear: groups had the freedom to re-arrange their work in a way that suited them best. Each week, students were allowed to choose their own equipment and apparatus from a selection. Furthermore, routines could be adapted to be performed on, off or with the assistance of the apparatus and students were encouraged to explore many different ways to achieve the learning objective. Groups were also encouraged to include additional elements of prior learning and challenged to link them to the desired content by thinking about travelling pathways. Students who had greater understanding and experience of gymnastics were challenged to include their skills in their routines. It became clear whilst watching the final routines that the students had adopted and valued this creative and autonomous process.

THE LEAGUE TABLE

The formal competition is a key feature of Sport Education. In the gymnastics unit, the team(s) who scored the highest points for the week were given gold status, second highest silver and third highest bronze. These marks were represented on their certificates at the end of the season and awarded in the culminating event. Whilst considering potentially contradictory



aspects of the two models, it was important for the teacher to establish the idea that the competition could be won by any team and that cooperating was the way forward. In Sport Education, bonus points are used to recognise small wins throughout the season and are added to the team's overall score. In this unit, the teacher decided to run a competition parallel to the peer-assessed league table which awarded points for cooperation and team work. The teacher awarded 10 (everyone on task), 5 (majority on task) or 0 (majority off task) points to the teams. The teacher felt that this would facilitate the need for competition while rewarding teams for staying true to the cooperative nature of the lesson.

MEETING THE NATIONAL CURRICULUM

The primary NCPE dictates 'what' to teach but offers little in terms of 'how' to teach, and this is often left to the discretion of the teacher (Lavin and Forwood, 2015). Sport Education and Cooperative Learning offer high-quality PE experiences, hit curriculum requirements, and facilitate the four learning domains of PE (physical, social, cognitive and affective) whilst taking the three areas of pedagogy into consideration: teaching, learning and the curriculum.

When creating units, it is important to consider which areas of the curriculum the educator wants to facilitate. When developing the gymnastics scheme of work, it became clear that combining elements of Cooperative Learning and Sport Education could support the purpose of study which states, "A high-quality physical education curriculum inspires all pupils to succeed and excel in competitive sport and other physically-demanding activities. It should provide opportunities for pupils to become physically confident in a way which supports their health and fitness. Opportunities to compete in sport and other activities build character and help to embed values such as fairness and respect."

Table 4 shows how the gymnastics unit facilitates the four aims of the NCPE.

At Key Stage 2, students are required to "continue to apply and develop a broader range of skills, learning how to use them in different ways and to link them to make actions and sequences of movement. They should enjoy communicating, collaborating and competing with each other. They should develop an understanding of how to improve in different physical activities and sports and learn how to evaluate and recognise their own success." With the use of Cooperative Learning and Sport Education, this unit can arguably facilitate all aspects of this curriculum statement.

Table 4

NATIONAL CURRICULUM AIMS	DESCRIPTION
Develop competence to excel in a broad range of physical activities	Gymnastics is the focus of the unit; however, elements of the unit have transferable skills which could be applied to other movement-based units, such as dance and yoga.
Should be physically active for sustained periods of time	With the exception of the group processing and peer-assessment phases, lessons promote maximum participation where students are active for the entire duration of the lesson.
Engage in competitive sports and activities	The unit promotes cooperating whilst taking part in the physical activity of gymnastics. The competitive sport element came from the peer-assessment phase where groups awarded each other a score which went towards a competitive league table. This unit tries to find a healthy balance between competition and cooperation.
Lead healthy and active lives	Students discuss with each other and the teacher how the transference of skills in gymnastics can help their physical literacy journeys, e.g. balancing, stretching, flexibility and strength can contribute towards an active lifestyle and building confidence can help with their emotional lives. Students could also highlight opportunities for extra-curricular opportunities which can take place in a variety of settings (gymnastics clubs, play parks, at home etc.)



The unit can also facilitate further curriculum requirements, i.e. pupils should be taught to:

- use jumping, throwing and catching in isolation and in combination
- develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]
- perform dances using a range of movement patterns (**movement patterns used in gymnastics routines**)
- compare their performances with previous ones and demonstrate improvement to achieve their personal best.

The unit comprised six themes (flight, rotation, floor, balance, vault and hand apparatus) and each theme required at least five compulsory skills to be present in the routines. Therefore, in 12 lessons, students experienced over 30 gymnastic-based tasks in the jigsaw element of the lesson. When this was amalgamated with the travelling elements and skills learnt prior to this unit, it becomes clear that the combination of Cooperative Learning and Sport Education provides not only the opportunity for students to learn, develop and refine a vast array of abilities but also offers a clear motivation to do so.

When units of work break away from the traditional six-week block of lessons and are extended to around 12 lessons, it can become a worry for teachers that students will lose interest or that they will not be able to fit more activities within the yearly timetable. This unit has consistently shown that when students are provided a clear justification for why they are using these methods, and are given a consistent update on their progress, they thrive and enjoy the process more. With careful consideration, aspects of gymnastics are transferable under movement education and would almost certainly appear in other units of work, such as dance and yoga.

When taking the three elements of pedagogy into consideration, a gymnastics unit taught using a combination of Cooperative Learning and Sport Education facilitates the 'what' and the 'how' to teach aspects of the primary NCPE.

CONCLUSION

Picture a scenario where your Key Stage 2 students come into a lesson and instantly know their roles and responsibilities and conduct them with minimum or zero direction from the teacher. Students use teacher-created resources which both assist their own learning and that of their peers, thus freeing up the teacher to observe the quality of the lesson and position themselves to ask questions which will strengthen the quality of

students' understanding, resulting in better outcomes. Students also have a clear understanding of how to assess their peers accurately. At the end of the unit, all students have contributed to the success of the lessons, have improved in the physical, social and cognitive domains and would happily continue the gymnastics unit if possible, thereby showing improvement in the affective domain. This has been the result during the past three years in which this unit has been implemented within our Key Stage 2 curriculum.

During one lesson including the Sport Education peer-assessment element, the head teacher conducted a recorded lesson observation and made these comments.

- Pupils worked well together, supported each other and used praise for encouragement.
- Pupils were keen to adapt routines to include movements for bonus points.
- Pupils could explain the planning process and the work done before to build up to it.
- There was discussion about how the routines went when students watched each other and evaluated.
- Pupils were clear about the process they were following and why (independence).
- Pupils were able to reflect on their own performances and evaluate the performances of others.
- All children were fully engaged.

Comments on the teaching focused on the use of effective questioning to support pupils towards the next steps. This highlighted that the teacher's approach was more of a facilitative role rather than a direct, instructive one. By enabling students to work independently, and develop their social skills and maturity, the teacher could use questioning to check and deepen students' understanding and spark further imagination and creativity.

After using Cooperative Learning and Sport Education within our school's curriculum for several years, we have benefitted enormously. Students are more independent and have greater empathy for their peers, regardless of their ability. When we go to school sport competitions, other schools comment on the respect and fair play our students show. I strongly believe this is down to the implementation of models-based approaches within our curriculum. The idea of shaking hands, giving positive praise, and winning and losing with a positive mentality are all parts of a hidden curriculum that are taught and learnt within the lesson to lesson episodes that arise. This has also been highlighted within other curriculum lessons, where the class teacher has used the team method approach to manage behaviour.

Whilst adopting elements from the two models, it was important to ensure Cooperative Learning's cooperative and Sport Education's competitive features both appeared equally without giving precedence to either model. It is true that the team who gained the most points would be the overall winner, but it was clearly highlighted that all teams could achieve championship status if they all achieved the lesson criteria, bringing an emphasis on cooperation. I believe this unit caters for both students who thrive off competition and those who prioritise team work and simply enjoy moving in physical environments.

Implementing a models-based approach is a fantastic way not only to facilitate gymnastics and sports within the curriculum whilst achieving NCPE criteria, but also to improve how students experience PE, physical activity and school sport whilst promoting positive citizenship. It requires the teacher to trust the process and allow the students to have more freedom in the way they learn the desired lesson content. Through the Sport Education and Cooperative Learning models, primary school students show a clear capability to produce high-quality content whilst progressing in the physical, social, cognitive and affective domains. ■

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