

Cooperative Learning Structures

Student Teams – Achievement Division

(STAD) is a *Cooperative learning* strategy where pupils with different levels of ability work together in small teams/groups to accomplish a shared learning goal. Each pupil is placed on a small team that is assigned a learning task. The task commences and continues for a specific period of time, pupils in each team are assessed and their scores are added/averaged to get a team score. Each team then partakes in a group discussion on how the team can improve, is given feedback and follows by retrying the task. At the end of the task, assessment is provided once more and team averages/scores are compared to see if there have been any improvements.

This approach focuses on cooperation, improvement and the development of social skills. The role of the teacher is to create tasks that require cooperation, provide necessary resources to complete the task, facilitate discussion after the first task, observe student interactions, and provide feedback. STAD may be used at the beginning of a four or six week learning block in PE and again at the end of the block. Groups can work on developing their intended team improvement during the block of PE learning. Additionally STAD can be used at the beginning and end of a lesson. STAD aligns with approaches such as [goal setting](#) and a focus on [effort and improvement](#) over outcome.

This diagram outlines how to use the STAD cooperative learning structure in a PE lesson.



Using STAD in the PE lesson: A Practical Example based on Continuous Running



Mr Murphy is a 4th class teacher in Happy Valley primary school. In his class, there is a group of pupils (Laura, Mark and Edel) who are very interested in sports and who play on several sports teams outside of school. During PE class, these pupils are also highly competitive and focus hugely on winning all activities. These students always want to be on the same team and often won't involve their classmates. When they lose an activity they often throw a tantrum, fight with and blame other pupils.

In Mr Murphy's class, there is also another student John who is now choosing to step out of PE class. He tells the teacher he has an injury/feels sick and asks to sit down. John used to participate happily in most PE activities. Mr Murphy spoke individually to John during a PE class and asked him to explain what was happening. He outlined how he is afraid that he will be given out to by Laura, Mark or Edel if he is on their team. He also said that he feels no one wants him on their team as he doesn't think he is good at PE.

Mr Murphy is finding teaching PE a very stressful experience, he values PE and wants it to be an enjoyable experience for all. Upon reflection, he feels that competition is a major issue in the class. When talking to a friend in another school he heard about a co-operative learning approach called STAD that emphasises a task and mastery climate in PE rather than an outcome or ego based one. Mr. Murphy researched this idea and attended a local PDST PE workshop where he heard more about this concept. In this approach, **all pupils can perceive themselves as being successful, as success is defined as improvement and effort**. To get this message across to his pupils Mr Murphy tried out this cooperative learning approach known as Student team's achievement division (STAD) in his class for a 3-week period.

The class was divided into small groups of 4-6 pupils of mixed ability. Mr. Murphy outlined to the pupils that they would be working on their distance running skills in the Strand of Athletics and focusing on the fundamental movement skill of running over the next few lessons. Each group undertook a timed run with each pupil assessed individually. After the timed run was complete the teacher outlined that they would repeat the run in two weeks and that the overall objective was to be the team that improves their time the most. All improvements in time would be added together to give an overall team improvement score.

Each group was given some time in each of the next few lessons to work on their distance running skills while focusing on a different teaching point of the skill of running each week. Each team could then decide on what they wanted to work on with Mr. Murphy circulating and giving some tips to the groups. Laura, Mark and Edel were all on separate teams. As the lessons progressed they began to help other members of their team more and more, as they recognised that the improvement score was calculated as a team. While John was reluctant at first, he began to participate more fully as the members of his team began to encourage him and invited him to participate. John began to realise his improvement score could be highly valuable to the team. At the end of the third week all pupils repeated the timed run with an improvement score calculated based on their first assessment. The winning team was announced and the teacher celebrated all groups who showed effort and improvement. The culture of the PE class began to change after these lessons and Mr. Murphy made a conscious effort to in the future prioritise **effort and accompanying improvement** over winning and losing alone in his PE classes.

Using the STAD cooperative learning structure in the Athletics lesson



- Arrange participants into groups of 4 to 6 of mixed ability
- Invite each participant to participate in the learning task - run for 90 seconds continuously around the space available. Each individual counts how many rounds/laps run in 90 seconds.
- Record score (discuss different ways of doing this e.g. a way to avoid social comparison if this an issue in the class)
- Write score on a post it and place on wall
- Add individual scores and team calculate their group total
- Discussion as a team how the group score can be improved e.g develop teamwork skills, work together to improve the skill of running, etc
- Teacher scaffolds an optional activity based on each teams chosen way to improve their score



- **Option 1: Runaway Train**

Each team forms a line one behind the other (standing a safe distance apart) in the shape of a train. Each team jogs around the playing area . On command, the last child in the group increases pace to move to the front of the group. Once they get there, they slow down to the pace being set by the group. The activity continues in this way.

An alternative is for the child at the head of the group to increase pace and maintain that pace until they have caught up with the line of pupils again. For this version, the lap must not be too long and the group must maintain a slow steady pace.

- Each group may choose this activity or identify their own approach to improvement.
- Re-do the initial running learning task, with each participant counting the number of laps ran in 90 seconds
- Record new score on a new post-it
- Calculate new group total score and improvement score

Resources: Cones/spot markers to mark out the running area, postettes, pens (participants use their own)

Group Processing (discussion/feedback prompts)

Group processing is one element of cooperative learning. Group processing is a reflective, guided discussion that allows pupils to reflect and discuss together their respective successes and failures during a particular task or lesson and share their ideas to plan for the next lesson.

After completing STAD as outlined above, group processing could be used to facilitate discussion and feedback. Use a number of the suggested questions to encourage whole group reflection & discussion. Reflective templates found in the PE Homework Active Everyday [Resource](#) may be used to support group processing.

- What worked well for you as a team?
- What did you find difficult?
- What do you or your team need to work on?
- How will you work on this?
- Give me an example of how your group worked well today?
- How did you deal with challenges that arose?
- What did your team or partner do well?
- Did the team members learn anything about themselves today?

Level 2 Questions
Post-activity Reflection Template

The activity I completed was _____
I completed it ☐ On my own ☐ With someone else

1. How did this activity make you feel in your mind and body?

I feel happy I feel motivated I have more energy I feel better than when I started I feel worried and unsure about something I did not enjoy this activity

2. I used the following body parts: Please circle or colour in

3. What did you find easy or difficult about the activity?

4. Does this activity remind you of another game you have played?

5. I would like to do this activity again ☐ Yes ☐ No

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Using the STAD cooperative learning structure in the Games lesson



- Arrange participants into groups of 4 to 6 of mixed ability
- Assign each group a learning task - *How many times can the group strike the object in the air before it hits the ground?*
 - a balloon and body parts (not hands)
 - a racket and small soft ball
 - a racket and a tennis ball
 - a soft foam football
 - 2 balloons and body parts (not hands)
- Allow each group to try the activity three times before recording their highest number of hits
- Discussion as a group how the score can be improved using the cooperative learning structure 'Numbered Heads Together'.



Numbered Heads Together

Numbered Heads Together is another cooperative learning structure suitable for the PE lesson. The teacher poses a problem/question. Each pupil independently thinks about a solution, then comes together with their teammates in a group, and discuss their answers together. The whole group discusses and agrees on a consensus. When ready each group sits down and the teacher calls a number assigned to one of the members of the team and that pupil answers on behalf of the team. The response may be verbal, written, demonstration, using digital technologies etc.

- All groups are named (A, B, C, etc) and all pupils are numbered (1, 2, 3, etc) within each group
- Teacher poses a question to the whole class... how can we improve the task of keeping the object up for longer
- All pupils have thinking (and potentially writing time)
- Pupils put heads together, discussing until they have a consensus

- All pupils sit down to signal to teacher they have reached a consensus
- Teacher selects a number at random. All numbered pupils stand up.
- Teacher chooses a group.
- The numbered pupil from this group responds and shares how they aim to improve at keeping the object in the air for longer.

Using the STAD cooperative learning structure in the Games lesson

- Re-attempt the task
- Assign 5 minutes to each group to attempt the task (possibly several times) before recording the highest score

Resources: balloons, rackets, soft balls, tennis balls, soft foam football

Further ideas to use STAD in the PE lesson:

Sprinting, throwing for distance, jumping for distance/height, basketball shooting, cooperative games e.g. hula hut challenge