

Peer Learning: Students

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Note: This document is expanded by default. To view the document in a collapsed mode, you need to right-click on any heading (with a twisty/triangle next to it) and then navigate to *Expand/Collapse ->* and click on *Collapse All Headings*. To collapse sections of the document, right-click on the particular headings and navigate to *Expand/Collapse ->* and click on *Collapse Heading*.

Peer-O-Sphere

Learning comes in a multitude of varieties. Pier Learning, for example, is the art of docking a boat in a way that does not involve an insurance company. Pear Learning is an undervalued but highly specialised subdivision of horticulture. Pair Learning is the rigorous training children undergo when learning why it is important for the right shoe to go on the right foot (and, conversely, the left shoe on the left foot). Peer Learning, on the other hand, is... well, let us get what it is *not* out of the way. 'Peer learning' does not refer to following Harry and Megan on Twitter. Nor does it refer to the skill set required to keep yourself up to date on your neighbours' quirks and quibbles.

Peer learning is a group of learning strategies. It is the educational practice of students interacting with each other to achieve educational goals. It assigns active roles to both the faculty and the students in the learning process. While it covers a wide range of activities, **teaching or learning from fellow students** is usually the common denominator.

In the interests of full disclosure, it must be pointed out that "I'm peer learning!" is yet to join the ranks of 'Acceptable Reasons for Passing Notes in Class'.

The purpose of this article is to convince students of the importance of peer learning, introduce them to various types of peer learning activities and help them identify contexts where one or more types would be suitable. We also list various peer learning strategies which students can use to become familiar with their peers, draw responses from shy peers and develop their own thoughts on the topic in question.

What are the benefits of peer learning?

Peer learning is gaining prominence in very many courses, contexts, countries—and other things that do not necessarily begin with 'C'. Its primary benefits include:

1. Enhanced comprehension

Students reinforce their own learning when they teach. The act of teaching is one of the best ways to learn. Explaining your ideas to your peers and taking part in activities where you learn from your peers aids your comprehension of the material significantly.

2. Improved interpersonal and collaborative skills

Your interpersonal and collaboration skills are something that you began developing the day you first stepped into a playground. And unless your aim in life is to be a hilltop-hermit, these are skills that *never* stop mattering. An aptitude for collaboration is particularly important if you want to thrive and survive in the workplace of today—and peer learning is an activity that allows you to practice those skills while forcasting the rewards and challenges of work relationships to come.

3. Improved organizational skills

Students develop strong organizational skills during the course of planning lessons, prioritizing goals, evaluating their own progress, and giving and receiving feedback.

4. Self-directed learning

Peer learning is highly motivating and encourages students to take control of their own learning. Taking the initiative when it comes to your own development is vital because nobody will take your interests to heart with as much enthusiasm and vigour as you would.

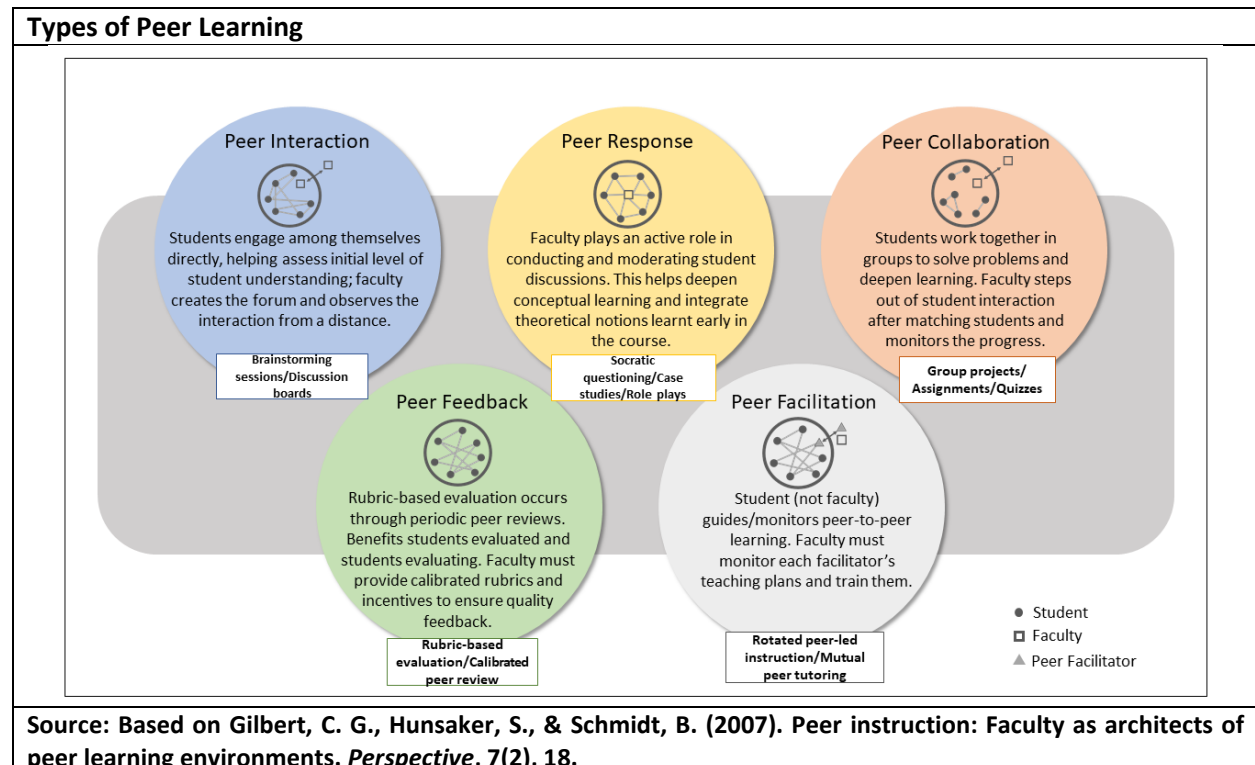
5. Improved critical reflection, critical thinking, and problem-solving skills

Peer learning fosters the development of critical reflection, critical thinking, and problem-solving skills.

As you can see, the benefits of peer learning go far beyond the acquisition of knowledge. One of the reasons that peer learning is so effective is that it assigns an active role to the students. They are no longer silent spectators in class. They are given the opportunity to prepare for the discussion, form their own ideas, and teach each other. You can see active learning in action [here](#).

What are the types of peer learning?

Just think of Harry Potter when he started teaching Defence Against the Dark Arts. While all his peers benefitted from his lessons there's no denying that his skills grew the most. But before you start looking for the Room of Requirements, it will be a good idea to consider the other peer learning strategies that may be available to you. The figure below summarizes types of peer learning which are used to design peer learning environments for the students.



The faculty will decide which peer learning activity to use based on the unique requirements of the students and expected learning outcomes of the course. Some activities may be better suited for introducing new content to the students while some may be apt for deepening understanding of theoretical concepts or applications. We explore these in the following section:

- **Peer Interaction** includes learning activities where students interact with each other without the assistance of faculty. Group discussions, study groups, brainstorming sessions, online discussion boards fall under the ambit of peer interaction. These activities are helpful in letting you explore the course material and get to know each other.
- **Peer Response** includes activities where students interact among themselves, with active involvement of faculty. Examples include socratic questioning¹, paired teaching, case studies,

¹ Socratic questioning is a technique which helps in deepening understanding of a concept. Questions may be directed towards clarifying concepts, probing assumptions, rationale, reasons and evidence, questioning

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concept tests, role plays, student panels, class demonstrations. These activities help deepen conceptual learning. Consider this [video](#), for example, where the faculty introduces a concept, poses a problem, asks students to discuss among themselves, rotates around the class to guide conversations and asks groups to present their findings. This results in deeper engagement with the content and longer retention of knowledge.

- **Peer Collaboration** includes activities in which students work collectively, to solve problems or apply concepts, towards an end (a report, assignment, or response). Group projects, assignments and quizzes are examples of these kind of activities. They teach practical applications and inject energy in the class.
- **Peer Feedback** refers to activities where students evaluate each other based on rubrics provided by the faculty. Examples include calibrated peer review (enabled by web-based software) and criteria or rubric-based evaluation. These activities are apt for occasions which call for real time feedback but are constrained by faculty availability. As students move through various peer learning activities, their role shifts from a passive learner to an active learner and finally to that of an assessor. This facilitates deeper and stickier learning².

Refer to *Appendix 1* for information on what ‘rubrics’ are and how they can be useful even while you are working on the assignment.

- In **Peer Facilitation** activities, students (and not the faculty) facilitate any of the above peer learning activities. Dedicated peer facilitators, student-led lesson development, mutual peer tutoring, rotated peer-led instruction are examples of this type of peer learning. These activities work to extend faculty reach as selected students facilitate and monitor peer learning. Student facilitators benefit by way of deepened learning, development of peer instructional skills and a sense of responsibility for learning of their peers. The other students benefit from having better camaraderie and accessibility to a facilitator.

As Professor Eric Mazur, Balkanski Professor of Physics and Applied Physics at Harvard University says that the reason that students are good at teaching one another is that they are ‘beginning learners’. Unlike faculty, who have the ‘curse of knowledge’, where they forget the difficulties that they faced when they first studied the concepts, the students remember these and address the problem areas in their interactions³.

There are other peer learning activities such as reflective learning assignments, jigsaw or experts, quiz and find, showdown, think-pair-share, circles, 30 second speech, gallery walk, round robin, three step interview, round table and group roles. These activities are generally used in a corporate context or in executive education classes but lend themselves well to an academic setting as well. Of course, students can use ideas from this list to draw out responses from shy peers and develop their own thinking on the

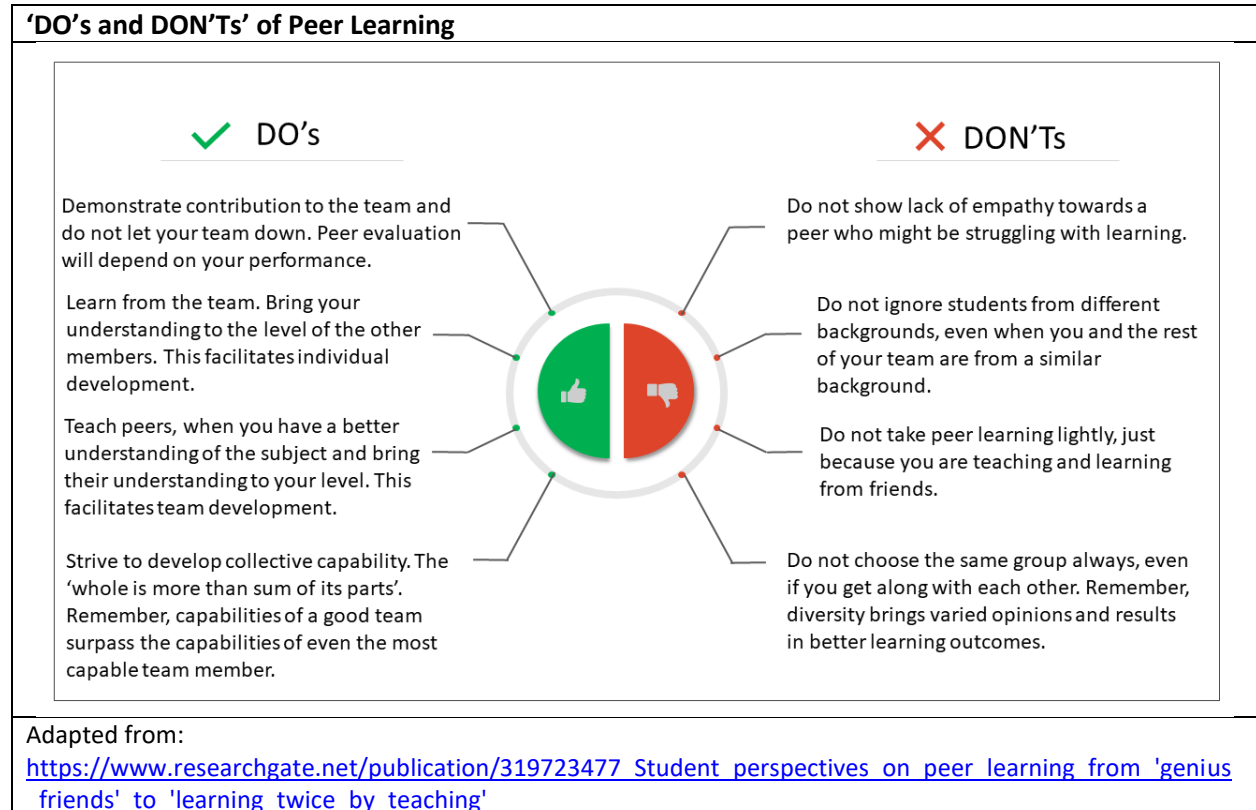
viewpoints and perspectives, probing implications and consequences and finally, questioning the question itself. Read more [here](#).

² https://www.sydney.edu.au/education_social_work/groupwork/docs/SelfPeerAssessment.pdf

³ <https://www.youtube.com/watch?v=Z9orbxoRofI>

Peer Learning: Students topic in a structured manner. You can refer to *Appendix 2* for details. Additionally, various tools and software are available for facilitating peer learning. Chances are that your faculty would assign the tool to be used in the course but you can always use one of these to further learning within your own group. You can refer to *Appendix 3* for a primer.

It would be useful to mull over the 'DO's and DON'Ts' of peer learning. The figure below lays out the most important points regarding peer learning etiquette.



'Life' is a concept whose definition is constantly being tweaked. Whether by philosophers, scientists, poets, or greeting card-manufacturers, people from every walk of life try hard to define the life they walk. Most people resort to analogies and that is how we end up with inspiring quotes that begin "Life is a box of chocolates" (and uninspiring quotes that conclude "Life is no bed of roses"). That is where songs like "Life is a highway" stem from and where mottos like "Life is a journey" germinate.

"Life is a lesson" is so popular because it is true. If we were to be precise, we would admit that life is a series of lessons. We never stop learning. Until now we've paid the most attention to our parents who taught us important things like telling left from right (and right from wrong) and our teachers--who tried to convince us (with little success) that knowing how to balance equations would save our lives and secure us jobs. It is time we started learning from our peers. There is more to their repertoires than WhatsApp hacks and Billboard tracks.

Appendices

Appendix 1: Rubrics

One way that the faculty use to structure peer learning is to provide evaluation parameters and rubrics to the students. Rubrics list grading criteria, and characteristics and performance level associated with each criterion. Rubrics are useful as they inform the students of what they need to do to get a particular grade or rating. They help a student judge their own work and accept more responsibility for the output⁴.

Rubrics facilitate self-assessment and peer assessment.

You can access sample rubrics for papers, projects, oral presentations and class participation [here](#). You can also examine rubrics on [AACU](#) or [RubiStar](#). The figure below shows a sample rubric for a report.

Sample Rubric for a Report					
Performance Rating					
		Excellent	Good	Satisfactory	Needs improvement
Criteria	Components of the Report	All required elements are present and additional elements that add to the report (such as thoughtful comments, suggestions, etc.)	All required elements are present.	One required element is missing, but there are additional elements adding to the report (such as thoughtful comments, suggestions, etc.)	Several required elements are missing.
	Question/Purpose	Purpose of the team activity or the question to be answered during the activity is clearly identified and stated.	Purpose of the team activity or the question to be answered during the activity is identified, but stated in an unclear manner.	Purpose of the team activity or the question to be answered during the activity is partially identified, and stated in an unclear manner.	Purpose of the team activity or the question to be answered during the activity is erroneous or irrelevant.
	Spelling, Punctuation, Grammar	One or fewer errors in spelling, punctuation and grammar in the report.	Two to three errors in spelling, punctuation and grammar in the report.	Four errors in spelling, punctuation and grammar in the report.	More than four errors in spelling, punctuation and grammar in the report.

Source: Adapted from <https://www.uen.org/rubric/know.shtml>

⁴ <https://www.uen.org/rubric/know.shtml>

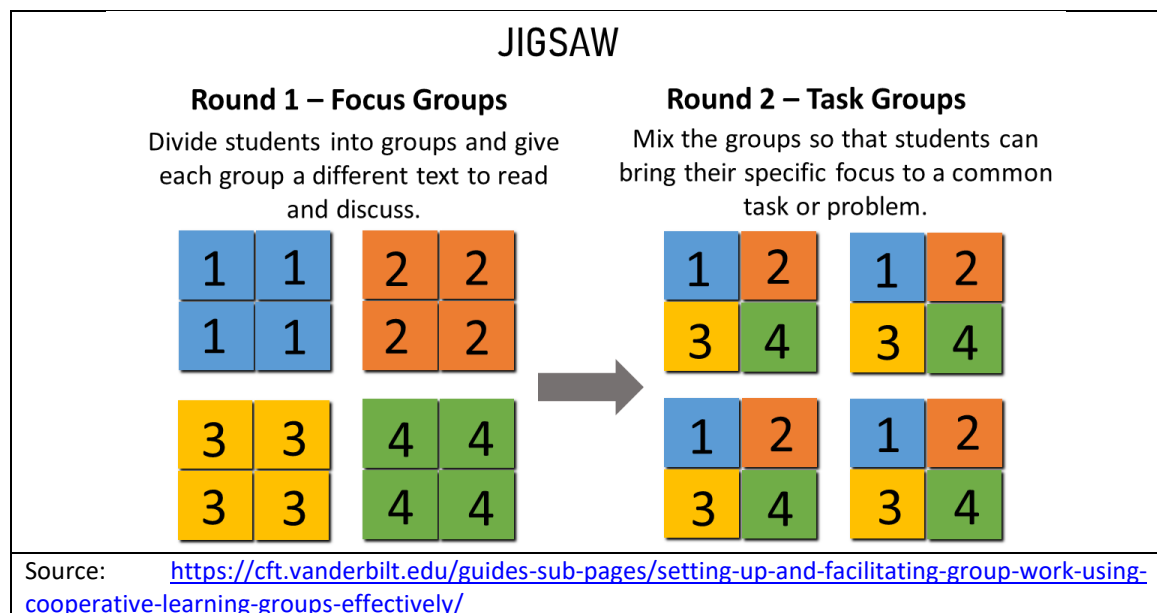
Appendix 2: Other Cooperative Learning Activities

- **Reflective Learning Assignments⁵**

Reflective learning assignments attempt to measure capacity to analyse and evaluate experience in light of theories and research evidence. Students may be asked to maintain an individual learning journal. Regular entries in the journal would enable them to reflect in a purposeful, theory-informed and structured way on critical group incidents and one's own actions. Over time, students would improve at group interactions. Learning journals should be assessed as it would provide an incentive for those students who find reflection a chore.

- **Jigsaw⁶/Experts⁷**

In this technique, groups are given different topics (say segments of new material to be covered as part of the curriculum). They study the topic and become 'experts' on it. The class then rearranges and the groups are mixed up in a manner that each group has at least one expert of each topic. Then the 'experts' take turns teaching their material to each other. Read more about this technique [here](#).



- **Quiz and Find⁷**

⁵ Boud, D., Cohen, R., & Sampson, J. (2014). *Peer learning in higher education: Learning from and with each other*. Routledge.

⁶ <https://cft.vanderbilt.edu/guides-sub-pages/setting-up-and-facilitating-group-work-using-cooperative-learning-groups-effectively/>

⁷ <https://edtech4beginners.com/2017/08/03/10-top-cooperative-learning-strategies-and-some-tech-tools-that-could-come-in-hand/>

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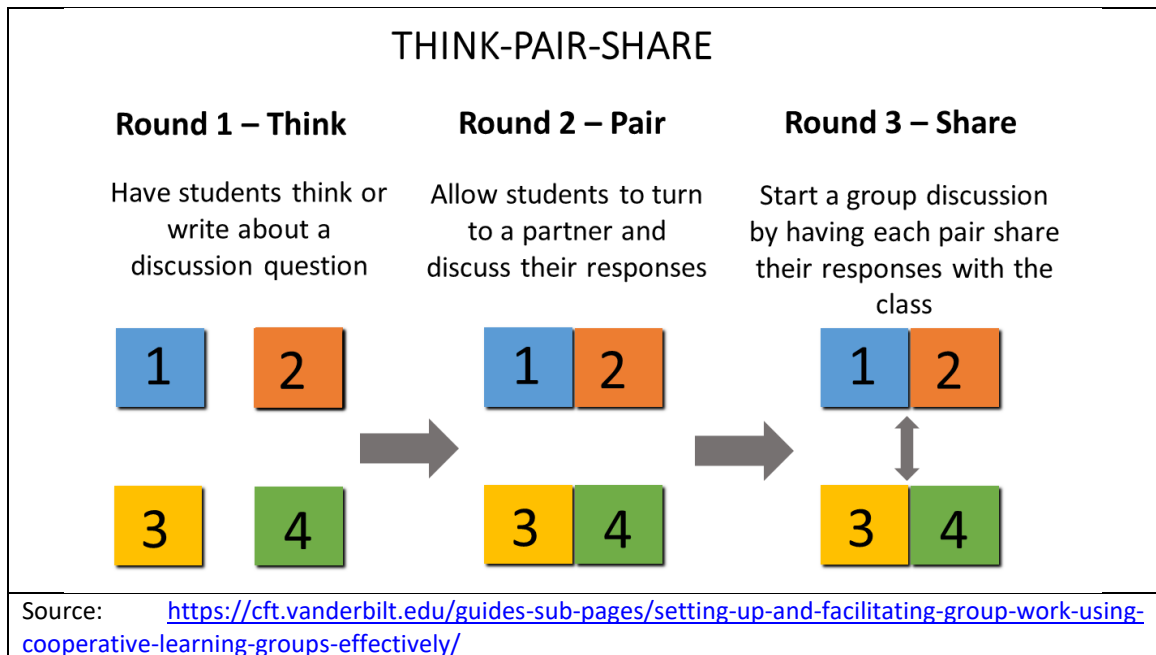
In this technique, students write a question about a topic on a piece of paper. Then they must walk around the class and find someone who can answer it. They must also try and answer questions.

- **Showdown⁷**

Students sit in a circle and the facilitator asks a question. The students must write their individual answers on a large sheet of paper or a board. When the facilitator calls 'showdown', all the answers must be shown. This is followed by a discussion on various answers.

- **Think-Pair-Share⁷**

A question is posed to the class. The students are given time to think or write the answer, after which they discuss the question in pairs or groups. This is followed by a class discussion where groups share their answers.



- **Circles⁷**

The class arranges itself in two concentric circles of students facing on another. The facilitator asks a question and the pairs discuss it. After this the facilitator says a number or calls out a direction (move left by 2 students), and the outside circle moves accordingly. The discussion resumes. The activity can go on until all possible pairs have discussed and end with a class discussion. This strategy is also called the doughnut or inside outside circle.

- **30-second speech (Elevator Pitch)⁷**

Students have to prepare a 30-second pitch on a new topic or a response to a question posed by the facilitator. Then they turn to their group or pair up and give their 30-second speech.

- **Gallery Walk⁷**

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At the end of a lesson, the students leave their work open. They walk around and view other student's progress. They can use sticky notes to make constructive comments. As a modification, facilitators can also use this strategy to present new material to the class by posting questions on the walls around the class (using flipcharts, whiteboards, or printed sheets). At the end of the gallery walk the students can be grouped and can discuss their conclusions from the evidence presented. You can read more about gallery walk [here](#).

- **Round Robin⁸**

Students discuss a problem or a topic, in pairs or small groups, talking in turns (one at a time). The problem should be of a kind where multiple answers are possible. The group can have an object that can be passed between members to determine whose turn it is to speak. The students work together to come up with an answer on which they all agree.

- **Three-step Interview⁹**

This technique can be used as an ice breaker or to know concepts in depth by assigning roles to students. The students break into pairs. The faculty assigns roles of interviewer and interviewee and may also give information that must be 'found'. The interviewer interviews the interviewee for a specified number of minutes after which the roles are reversed. The process resumes for the same duration after which each pair turns to another pair, forming a group of four. Each member of the group talks about the most interesting points which she has learnt from her partner.

- **Roundtable⁹**

This technique lends itself well to brainstorming. It can be used to generate a variety of responses to a question which can have several right answers. Students are divided into groups and are armed with a paper and a pen. The faculty poses a question. The student with the paper and pen writes his response, says it out loud and passes the paper to the left, the other students do likewise. A student may say pass and take the turn when the paper comes around again. This continues until time is called. At the end groups may discuss among themselves or share the list of responses with the entire class.

- **Group Roles⁹**

While working in groups, it is a good idea to assign roles to various members of the group. The role assignments can be done by the students or by the facilitator. Potential roles can be leader, recorder, reporter, monitor and wildcard (assistant to leader or filler for any member who may be missing). The assignments can be rotated periodically. This structure will formalize group interactions and prepare students for the future (work life).

⁸ https://knilt.arcc.albany.edu/Examples_of_Cooperative_Learning_Strategies

⁹ <https://www.utc.edu/walker-center-teaching-learning/teaching-resources/cooperative-learning.php#structures>

Appendix 3: Tools and Software for Facilitating Peer Learning¹⁰

Student Response Systems	Peer Assessment and Review	Discussion Platforms	Video Recording
<p><u>Mentimeter</u></p> <ul style="list-style-type: none"> - User-friendly; works well on mobile devices; free account - Real-time input from students in the form of polls/quizzes/Q&As - Students interact with peers from different schools 	<p><u>WebPA</u></p> <ul style="list-style-type: none"> - Online shared service designed by Loughborough University - Facilitates peer-moderated marking of group work 	<p>Student Portals</p> <ul style="list-style-type: none"> - University online forums allow students to discuss their learning and ask questions 	<p><u>Camtasia</u></p> <ul style="list-style-type: none"> - Faculty/students can record quick video lessons and share with the class - Record your screen - Add effects
<p><u>Kahoot</u></p> <ul style="list-style-type: none"> - User-friendly; works well on mobile devices; free account - Play kahoots (student groups) in team mode to boost communication and teamwork - Gather opinions of learners through polls 	<p>Rubrics</p> <ul style="list-style-type: none"> - An assessment tool that's based on a list of criteria for achieving a task - A scale for grading the different levels of achievement 	<p><u>Piazza</u></p> <ul style="list-style-type: none"> - Free Q&A platform for students - Wiki-style formats - Integrates with every major LMS - Customizable online polls 	<p><u>Screencast-o-matic</u></p> <ul style="list-style-type: none"> - Free, user-friendly tool - Students can record their ideas and opinions, which can be shared with their peers in class
<p><u>Socrative</u></p> <ul style="list-style-type: none"> - User-friendly; works well on mobile devices; free account - Works for small groups - Real-time assessment of students is possible through quizzes, surveys, and team activities. 	<p>Paired marking</p> <ul style="list-style-type: none"> - Pairs of students interchange and assess each other's work - Assessment is done by using rubrics or by applying success criteria to each other's work 		
	<p><u>Feedback Fruits</u></p> <ul style="list-style-type: none"> - The tool is currently at the testing stage - Faculty can use this tool to guide students in reviewing each other's work 		

¹⁰ https://www.rug.nl/e-learning/projecten/flipped-classroom/methods-and-tools_-a-comparison?lang=en
<https://theeducationhub.org.nz/wp-content/uploads/2019/08/Eight-tools-for-peer-and-self-assessment-.pdf>

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	- It also has a voting feature		
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