

Our review of over 200 educational research papers identified eight key thinking and learning skills that have been found in common across this research

Our two-year research review identified these eight key thinking and learning skills:



of the skills above

Problem Solving



Peer teaching usually involves learners teaching their peers, either through one-on-one tutoring or small group instruction.

This type of learning has been shown to have a number of benefits, including increased motivation, engagement, and understanding of the material.

Furthermore, peer teaching helps learners develop important thinking skills, such as critical thinking and problem-solving, as well as communication skills.



By developing peer teaching skills, learners take responsibility for their own learning, as well as the learning of their peers, creating a supportive and collaborative learning environment.

In other words, developing peer teaching skills helps create a dynamic and supportive learning environment where learning is maximised.



#### Teaching something to someone else is the best way to learn it



You never really know something until you try to teach it to someone else.

Each time you step before your class, you marshal a range of skills and knowledge that, together, enable you to guide learners toward an understanding of the lesson content. And you've most likely recognized that in preparing and delivering your lesson, you've come to master the material in a way that is different, and superior in some ways, to the mastery obtained through the role of learner.

Any activity that requires your learners to modify and broaden their role in this way - by teaching others - will encourage active learning.

> *Using Active Learning in the Classroom - ERIC Digest ERIC Development Team - www.eric.ed.gov*

> > USC Center for Excellence in Teaching University of Southern California - cet.usc.edu

### Peer teaching is not a new concept (1)



Aristotle - Wikipedia

Andrew Bell - National Galleries Scotland - www.nationalgalleries.org

Peer teaching can be traced back to Aristotle's use of learner leaders. It was first organized as a theory by Scotsman Andrew Bell in 1795, and later implemented into French and English schools in the 19<sup>th</sup> century.

#### The benefits of peer teaching are:

- Direct interaction between learners promotes active learning.
- Peer teachers reinforce their own learning by instructing others.
- Learners feel more comfortable when interacting with a peer.
- Peers and learners share a similar vocabulary, allowing for greater understanding.
- Teachers have more time to focus on the next lesson.

How Peer Teaching Improves Student Learning and 10 Ways To Encourage It - June 2013 - informED - www.opencolleges.edu.au





#### Pupils learn by teaching others



Peer work is particularly valuable because the interchange will be in language that pupils themselves would naturally use, and because pupils learn by trying to teach and by being assessed by, their peers.

> Full Marks for Feedback Making the Grade - Paul Black Journal of the Institute of Educational Assessors - Spring 2007

### The Benefits of Peer Teaching (2)

Peer teaching deepens understanding and contributes to a supportive and collaborative learning environment



Peer teaching is a valuable pedagogical strategy that provides learners with opportunities to apply their understanding and to learn from one another.

By teaching their peers, learners not only deepen their own understanding, but also contribute to a supportive and collaborative learning environment.

Richard M. Felder and Barbara A. Soloman - Teaching and Learning STEM: A Practical Guide - John Wiley & Sons 2015

### Introduction to Peer Learning



Receiving information and knowledge from a peer is different from receiving it from a teacher.

A peer may be better suited to explain that topic to the learner, by explaining it in their own words and by having only just learnt the topic themselves.

> Adapted from: 5 Main Benefits of Peer-to-Peer Learning 2023 Adapted from: Peer Square - peer-square.com

### The Benefits of Peer Learning (1)



Evidence is accumulating that peer learning creates greater confidence and independence in learning, a deeper understanding and improved grades for both peer teachers and their pupils.

This reinforces the idea that if you teach a peer a subject, *you* will gain a deeper understanding of that subject.

Adapted from: Benefits of peer to peer learning - Feb 2014 Peersdom - www.peersdom.com

### The Benefits of Peer Learning (2)



Probably, the biggest benefit of peer-to-peer learning is that it has a significant effect on improving academic achievement for learners.

In short, it offers the right learning support that ultimately improves the learner's learning.

It is not only that learners are studying together, but it's also that the peer teacher is fine-tuning their own skills by teaching the peer learner the subject.

> 5 Main Benefits of Peer-to-Peer Learning 2023 Adapted from: Peer Square - peer-square.com

## Peer learning fosters diversity



Peer learning fosters diversity and depth in a learner's knowledge and opinions.

Learning from peers of different backgrounds, views, and ethnicities fosters an environment of mutual respect, gratitude, and progress.

It's the differences between learners that add a richness to the learning environment.



Peer learning helps learners (and sometimes parrots) to progress in their learning



Often, learners are not able to recognize the gaps in their own knowledge. But when they learn with their peers, they can see new processes for answering questions and come up with creative, collaborative solutions.

Importantly, they will carry these new perspectives, as well as a willingness to seek and accept feedback, with them as they progress in their education.

## Peer learning builds bonds of friendship



There are social benefits to peer-to-peer learning.

The time that learners spend with one another helps build social bonds that transcend regular school hours.

By studying together and engaging with one another, learners enhance their social skills and build bonds and friendships.

> 5 Main Benefits of Peer-to-Peer Learning 2023 Adapted from: Peer Square - peer-square.com

#### Conclusion on the benefits of Peer Teaching and Peer Learning



Peer teaching has become increasingly popular in many instructional settings in recent decades because it has demonstrated several valuable benefits.

For **peer teachers**, the experience can deepen their understanding of the subject and impart confidence.

For learners, **peer learning** can lead to improved attitudes and a more personalized, engaging, and collaborative learning experience, all of which can lead to higher achievement.

#### Peer Teaching can:

- Improve learners' attitudes toward learning.
- Foster a more personalized learning experience.
- Engage learners through cooperative learning.
- Lead to higher academic achievement.
- Help peer teachers gain confidence and sharpen their own skills.

Benefits of Peer Teaching - Steven Fink - Feb 2020 Summer Tech - www.summertech.net The following pages have research-based quotes on peer teaching and learning.



This research could be used for teacher CPD on the benefits using peer teaching and learning (and possible drawbacks) The benefits of peer teaching and peer learning (1)



# The benefits of peer teaching and peer learning (2)



One of the most effective active learning techniques is that of peer learning. Put simply, peer learning is when learners teach each other.

This type of learning will aid retention and it encourages communication and collaboration.

Peer learning is an educational method that helps learners solidify their knowledge by teaching each other.

One learner tutoring another learner in a supervised environment can result in better learning and retention. Why? Because to teach another, one must first fully understand a concept themselves. Verbalizing a concept and sharing the information with a peer serves to reinforce the knowledge gained.

# The benefits of peer teaching and peer learning (3)



Peer Teaching was developed by Professor Eric Mazur of Harvard University in the 1990s

Mazur argues that you can explain something better if you have just recently learnt it yourself - the process of 'talking to your neighbour' enables the issue and its complexities to be unpackaged.

Indeed, he argues that the interactions between the pupils are unique and difficult to replicate in teacher-pupil interactions. He claims that this methodology is particularly effective because, in a pairing of two pupils (one who has grasped the subject, one who hasn't), the pupil that has grasped the subject has only recently done so and is therefore better placed to convey how they came to a particular conclusion.

> *Peer Instruction - Clark – Mar 2016 University of Kent - blogs.kent.ac.uk*

The benefits of peer teaching and peer learning (4)



#### Peer teaching results in deep learning

All types of peer teaching have been shown to be highly effective in terms of boosting motivation, focus and depth of understanding. Studies have shown that the cognitive process of explaining solutions, and dealing with questions and misunderstandings will help to embed knowledge further into a pupil's memory and enhance their understanding of the subject.

This process can result in 'deep learning', which is retained by the pupil's long term memory, rather than 'surface learning', where information can dissipate from their memory.

> Adapted from: ResearchGate - Peer to Peer Practices - 2019 www.researchgate.net + Erasmus+ ecosystemapp.net



education world - www.educationworld.com

# The benefits of peer teaching and learning (6)



# Some pupils are excellent teachers

Pupils who have just learned something are often better able than teachers to explain it to their classmates in a language and in a way that is understandable.

Formative Assessment and Self-Regulated Learning: A Model and Seven Principles of Good Feedback Practice Nicol and Macfarlane-Dick – Jan 2007 - www.tltt.strath.ac.uk

# Conclusion (1)

# Three benefits of peer to peer teaching and learning



Peer to peer teaching and learning may offer several benefits, including - but not limited to:

1	Peer to peer teaching will help both peers learn.
2	Peer to peer learning will improve each peers' communication and social skills.
3	Social interaction makes studying more enjoyable and allows learners to improve their communication and social skills.
Peer Learning: Overview, Benefits, and Models - Sept 2022 WGU - Western Governors University - www.wgu.edu Peer Tutoring: What Is It and Is It Right for Your Student? Emergent Education - emergenttutoring.com	



Similar to the idea that 'two heads are better than one', educational researchers have found that in peer work pupils learn from each other by addressing misunderstandings and clarifying misconceptions.

> Adapted from: Centre for Teaching Innovation 2019 Cornell University - teaching.cornell.edu