CHAPTER 4

RePairing Education: The Peer Learning Transformation

Remember those 1800s classrooms that looked much like today's schools, with individual desks in rows facing the teacher? Here's another one to remind you.

Second-grade Classroom in the Hyde School, Boston, c. 1890s
Photo by A.H. Folsom

This physical setup has changed little in over 100 years. The pedagogy it embodies is similarly stagnant. But what options are there? What's the alternative to a teacher-centric classroom with passive learners working alone in lined-up desks? Can we *repair* our broken system?

The answer hides within the question itself: a return to *paired* learning.

Paired learning is a process by which students help each other work actively through subject matter. A paired learning classroom focuses

children on each other instead of having everyone stare at the teacher in the front. At a glance, you can tell something different is going on.

ALfA Classes Conducted at the 11th CIS Summer Camp in Lucknow, India, 2017

In a paired learning classroom, the teacher introduces the lesson and then matches students into pairs. One student, the 'learner', tries to read the passage, solve the problem, or otherwise perform the task given. The other student, the 'tutor', guides the learner on which tasks to complete, gives feedback if they notice the learner making any mistakes, and assists the learner if they struggle. For challenging material, the 'tutor' and the 'learner' often solve the problem together. The adult teacher's role is to move about the room, facilitating the process and giving individual help to any pairs who fall off task or reach an impasse.

In some paired learning models,[1] the teacher pairs stronger students with weaker ones and designates the stronger student as the peer tutor. The stronger student employs creativity and insight to find new ways to explain the lesson, while the weaker student gets direct, personal attention from a stronger peer.

Other paired learning models (such as ALfA)[2] allow students to rotate between the tutor/ learner roles regardless of ability, under the philosophy that everyone has something to gain in both positions. If two students of equal ability help each other, they may excel in different areas and notice different mistakes, so they can accomplish more than either would have individually. Even when a stronger learner works on a problem while being 'tutored' by a weaker learner, the stronger student still gets

to practise their problem-solving skills, while the weaker learner benefits from observing someone work at a more advanced level. Sometimes, even a weaker learner will catch an error in the stronger student's work. The child-focused nature of paired learning ensures that all students remain active and can gain something from any configuration.

Paired learning isn't new. The classroom form has been traced back to an Indian school in the late 1700s and British schools in the early 1800s.[3] In both cases, children progressed successfully with minimal teacher intervention. Administrators shared the idea with others, and the method became popular, spreading to thousands of schools in England, France, Italy, the United States, and South America.

Unfortunately, the technique disappeared in the mid-1800s when the Industrial Revolution took over public schooling. Educators assumed that a lecture delivered straight from the teacher's mouth was more efficient. Some teachers felt that cooperative learning wasn't practical for their school's size or that it supplanted their top-down authority. Thus, direct teacher-centred instruction and passive learning became the norm for over a century.

Since the 1960s, paired learning has undergone a resurgence. Structured paired learning schemes now include PALS (Peer Assisted Learning Strategies), CWPT (ClassWide Peer Tutoring), ALfA (Accelerating Learning for All), and CSTT (Classwide Student Tutoring Teams). These techniques have advantages over the traditional model, namely:

- **Learning is Active:** Children participate in their education, developing their connection to the material at a deeper level.
- **Learning is Responsive:** Students receive continuous feedback from their learning partners, which is proven to enhance learning outcomes.
- **Learning is Individualised:** Pairs proceed at the pace and level of the 'learner' rather than being forced to match the speed of their classmates. As a result, slower students get more time, while fast students advance at their own pace.

Paired learning may sound idealistic to those who haven't experienced it. They have questions like, 'Can children learn with minimal direct instruction?' or 'How could students help their learning partner if they haven't mastered the material themselves?' Thankfully, there is a considerable body of published research on the efficacy of cooperative learning. These studies have shown that paired learning can lead to:

- Superior academic performance and test scores[4,5,6,7,8]
- Greater skill mastery[9,10,11,12,13]
- Deeper understanding of concepts[14,15]
- Enhanced reading comprehension[16,17,18,19,20]
- Ability to link content to themes[21]
- Higher engagement and time-on-task[22,23]
- Better student attitudes and motivation[24,25,26,27,28,29]
- Improved classroom behaviour[30,31]
- More equality for students of different backgrounds[32,33,34]

Paired learning can work for learners from kindergarten up through university. Teachers use it successfully in reading, maths, social studies, science, computer skills, and life skills courses. Even new language learners and students with mental disabilities have benefited from peer learning, both as learners and as tutors. Schools currently employ cooperative learning in the USA, India, Canada, Turkey, Nigeria, Ghana, Korea, Germany, Indonesia, Ireland and other nations. It's probably being taught somewhere near you.

Most studies we cited focus on 'hard' outcomes, such as better test scores and skill acquisition. However, a key strength of paired instruction is that it also improves 'soft' skills. Teachers find that children working in a collaborative learning classroom show more teamwork and enhanced friendships. Students report they like learning in pairs and wish to continue.

Even the youngest students know what good pedagogy feels like. A study of paired learning in reading classrooms found that children as young as five understand the difference between empowering help (suggesting hints) and disempowering help (giving answers) and act accordingly, first giving good hints to their peers rather than just telling them the answer.[35] However, when these same children heard particular classmates described as slow or incapable of learning, they began to teach them in a less empowering manner, more often just giving away the answer rather than helping the tutee work hard to come up with the solution.[36] This experiment also shows how much a teacher's words matter—impacting students' self-esteem and how other students view them.

That study also highlights an advantage of random pairing. When teachers avoid pairing students by ability, they have fewer opportunities to compare themselves to others and feel they're not measuring up. If only the stronger half of students are allowed to be tutors, then the other half know they aren't 'good enough'. With random pairing, we can train all our students to respect each other – and themselves.

Not all positive impacts are revealed in studies. Can you measure the character improvement of children who learn to help each other? Or the joy of a student who was previously told they were 'slow' but is now trusted with the role of a peer tutor? Paired learning develops compassion, confidence, and self-esteem beyond what any score sheet records. Paired learning also facilitates a classroom environment where students can work on deeper, more complex problems, known as 'constructivist' learning. These are profound gifts to our students.

The ALfA Paired Learning Process

Accelerating Learning for All (ALfA) is the product of a twenty-year journey of figuring out what works and applying it in the classroom. It's the real-life application of paired learning to each aspect of the classroom experience.

In ALfA, every child becomes the focal point of their education. They work through the material themselves rather than waiting for someone else to tell them what to do next, because the task only progresses if they take the initiative. With no teacher to parrot off, learners must produce the answers. This focus places each student in a cognitively active mode as they *think* and *respond* throughout the lesson.

Of course, the learner is not alone in this pursuit – each child has a partner to guide them. Students are assigned random pairs and take turns performing in both roles. Thus, every student gets exposed to the material in two modes – as the learner and as the tutor. Children gain greater confidence when they are in control of their learning process. We often hear our students in our programme boasting: 'I learned it all by myself; nobody told me.' Once learners have internalised these techniques, they practically teach themselves how to read!

You may wonder, 'How can children teach each other things they haven't yet learned themselves?' We're so used to teacher-centric classroom materials designed for adults to understand and interpret material for the children's sake that we don't realise learners working together can accomplish a lot with suitable materials. ALfA books look different because we design them for children, not for teachers. As we showed in Chapters 2 and 3, the key is to move from 'known to unknown' in a manner that builds on the child's existing abilities.

This approach enables every child in the classroom to remain on task throughout the lesson. Since both partners have to pay attention or the lesson doesn't progress, there isn't room for anyone to check out mentally. Unlike the teacher-centred model, where only a tiny proportion

of students are thinking with purpose at any one time, here we have a whole class of student pairs thinking and working hard simultaneously.

As they've recognised the benefits of students working together, many new programmes now incorporate some form of paired learning. However, the ALfA programme has several unique features in its approach:

- Children work in pairs almost **the whole time**. While many programmes have a paired learning component for perhaps 20-30 per cent of the class time, the entire ALfA pedagogy revolves around paired learning.
- Fresh pairs are made **every day**. Rather than sitting with the same partner for weeks on end, children are rotated swiftly, which means they regularly get the chance to work with every classmate.
- Within a pair, children **swap roles frequently**. Child A, the learner, reads a line to Child B, the tutor, who corrects any mistakes they may notice and encourages them. Then, the roles reverse, with Child B reading the second line and Child A listening attentively. This fluidity of roles means that both students remain highly engaged, taking turns to read, ask questions and solve problems together.
- Pairs are made **randomly**. Some peer learning methodologies (such as PALS) always pair slower learners with stronger ones so that only the strongest students teach the weaker children. Other programmes deliberately separate children into so-called homogenous groups: the 'advanced' kids work together while there is a separate 'remedial' group. However, this type of categorisation can be harmful to students' self-confidence and morale. In contrast, ALfA's random pairing approach has unique social benefits, as we unpack in the section below.

The Advantages of 'Random' Pairing

A surprising feature of the ALfA methodology is that we pair all students into learners and tutors, without discriminating. Many teachers don't believe that every student can effectively assist others. How does it work?

Here, we'll look at the various pairing combinations and show why each leads to gains for both partners.

- *Strong tutor with any learner*: The path to progress is obvious with a strong tutor. The learner reads the passage, sometimes making mistakes, and a strong tutor will recognise their errors and help them discover the correct answer. This pairing gives the learner the devoted attention of a stronger reader. It helps the tutor because they comprehend the material more deeply when assisting someone

else. Tutor and learner grow in cooperation, patience, and other soft skills.

- *Average tutor with an average learner*: Once again, the tutor delivers the prompts, and the learner reads along, sometimes making mistakes. Even if the tutor is average, no two people make all the same errors so that the tutor will catch some of the learner's mistakes, and the learner will decipher some words the tutor would not have gotten right. If there is a disagreement, they work it out together, learning more. Occasionally, they may ask another pair or the classroom teacher for help. Studies in paired reading have shown that two readers working together progress to advanced work more quickly than either would have been able to do alone.[37]
- *Weak or average tutor with a strong learner*: In this pairing, the weaker tutor delivers the prompts, sometimes without knowing the correct answers. That works out okay because strong students can derive the solutions from the prompts and visual clues. The strong learner still gains significantly from practising the material, and the weaker tutor benefits from observing someone else read and solve problems efficiently.
- *Weak tutor with a weak learner*: This is the most challenging pairing. However, as in the 'average student' example, two vulnerable students will still decipher more together than they would have individually – two heads are better than one. If both children are too new to reading to guide each other, they may need to be split up and paired with more robust students for the first few weeks. Very soon, though, even the weakest students will learn the procedure and be able to start taking turns in the tutor role.

You can see the advantages these pairings provide for all learners. The weaker students receive more individual attention. The stronger students get cognitive gains from figuring out answers and helping others. And everyone benefits from the constant stimulus of staying engaged through the entire lesson. In addition, children proceed at their own speed, thus maximising their learning time. The strong learners complete the material as quickly as they competently can, and the weaker take as much time as they need to master each lesson.

Paired learning is key to repairing a broken, dysfunctional education system: it increases the pace, richness, focus and relevance of the learning experience.

Students who learn to work effectively with all their pairs have an advantage in future endeavours, where they will be more likely to succeed if they can utilise partnerships with a diverse range of people. The next chapter will show how the ALfA process more broadly inculcates the 'soft skills' critical to a twenty-first-century education.

How to Make Pairs

This chapter has discussed *why* paired learning is beneficial, but you may also ask *how* best to make pairs. Here are a few of our techniques for frequent, random pairing:

- **Number Chits:** Suppose there are 40 children in the class. Write numbers from 1 to 20 on separate chits twice. Shuffle the chits and distribute one per child. Now ask them to get up and move around the class until they find their partner with the same number. These two become a pair.
- **Lottery:** Ask children to write their names on chits of paper or ice cream sticks. (If a child can't write their name, their friend can help). Bring all the names to a central desk and mix them in a bowl. Have a child pull two names randomly; these two become a pair.
- **Musical Pairs:** Play a song and have students move around the class, greeting each other – for instance, with a 'namaste', high five, or handshake. The moment the music stops, each student forms a pair with the person they greeted last.