Reinforcing Learning What We Can Do Better

Archana R

In the book The Homework Myth by Alfie Kohn, there is a structured exploration of the myths about homework, how it is constantly defended by teachers and parents, and ways that data can be misread to continue the practice. The most interesting, convincing, and altogether horrifying defence of the arguments made in the book that I have come across is in a documentary by Irani filmmaker, Abbas Kiarostami. In his documentary titled Homework, the renowned director asks Iranian children from different age groups simple questions about homework. He asks them about how much homework they get, how much time it takes them to complete it, whether they get support to complete it and about their favourite activities. It is clear that the children get too much homework, and completing it takes up most of their time after school. But what the documentary also does is that it explores in a subtle, nuanced way the effect homework has on children. When children were asked if they preferred homework or watching cartoons, each of them instinctively said, 'homework'. A lot of children stick to the same answer even when probed. Only one or two of them admit (quite shyly), after several attempts, that they prefer to watch cartoons. We understand that this shyness, hesitation, and need to respond promptly is the overarching effect of children doing something that is clearly uninteresting and unhelpful to their learning experience but has been established as a marker of a good student.

The issue, as we know, is that too many people argue that homework is reinforcement; homework needs to be given every day; and that children who do homework regularly achieve the best learning levels. That this has been contested is also not new, but there are two interesting points the documentary brings out. The first one is, what happens when children have to do homework every day? The second, is the idea of 'a good student' used interchangeably for children with good learning levels. This article explores learning reinforcement as a response to these two questions.

What is homework?

In every school I have visited in Yadgir in the last 4 years, teachers share that children's learning is suffering because they do not do homework. Based on the socio-economic-cultural background of the children here, it is certainly untrue to say that children do not work at home, because all children, especially those above class II, are busy individuals with their own set of responsibilities. So unlike students coming from relatively better socio-economic conditions, the accusation is that children do not prioritise doing 'schoolwork at home' while having no qualms about doing work expected of their families. Meanwhile, we can categorise the homework assigned by teachers in the following manner:

Homework → To complete what has not been finished within the class hour

Homework → To continue exercises whose examples have already been discussed in the class Homework → In preparation for the next day's content

Of the three, we see that the third option has some scope to engage children well. The first one is done for the sake of maintaining records, while the second option is often too challenging for most children to do without support. Hence, we see the first two types of homework being converted into a copy work activity. Even if we admit that this is only true for about 60 percent of the classrooms, it would still mean that what we are predominantly prescribing to is:

Reinforcement → Homework → Copy work → Improvement in learning

The result of this can be roughly summarised as:

Reinforcement (which is actually more than practice) \rightarrow Homework (usually in the form of writing) \rightarrow Copy work (tedious, uninteresting, and does not appropriately engage children's cognitive or critical capacities) \rightarrow Improvement in learning (rare, minimal, and not to the expected extent).

We generally try to understand what learning reinforcement is, but perhaps we would have a better chance of understanding it if we asked the question: what can learning reinforcement constitute? Because this would mean that while written exercises as homework (some of which can be copy work) would be included in the definition, they will occupy a very small part of the reinforcement. This would lead us to respond to all of the other constituents:

Types of reinforcement

To strengthen concept understanding, reinforcement can include contextualising what children have learnt from their environment; finding examples; applying a definition; verifying if a definition works for processes around them; and extending it to find their own questions to broaden their understanding.

In terms of practice, it can include repeating what they have just learnt; trying out different types of problems or questions for a particular topic/concept; and representing what they have learnt in multiple ways. For example, children conducting a simple survey of animals around them to tabulate it as data in maths. Children can either write the names of animals or draw the animals in the table to present their findings.

For developing 'study culture', reinforcement can be trying out exercises of varying difficulty; engaging in activities, like simple investigations; interviews; research; engaging in pair-work and group-work for long and short-term projects; creating simple art and crafts; material collection for a class; working with a study partner on a regular basis; and engaging in activities related to community support/care through simple interviews to create write-ups on certain topics (festivals, trade, or migration). In doing this, the children would not only be engaging with content at home but would also use it to understand their community and develop a concern for its well-being.

As we know, students are rarely given exposure to these kinds of reinforcement. The other reason for this is that we do not plan for reinforcement to happen in the classroom, outside the classroom during school hours, starting in the classroom and extending after school, starting as homework and extending into class, and after school hours.

This brings us to the question of planning a variety of activities and administering them at different times. During my work with schools, I have attempted and worked out a selection of activities:

Language

During assessments, we see children struggling to write about a given picture. Some of the ways in which they try to respond (for example, Figure 1) are:

- Writing random letters that they know
- Writing something unrelated, mostly copied from somewhere else
- Writing words or phrases that lack continuity and coherence
- Repeating sentence structures to cover everything in the picture

What was understood from these responses is that children feel an overwhelming pressure to fill up the given space and that knowledge of letters does not guarantee good written responses. Thus, the plan was to have activities that would address both these issues:

- Writing needs to make sense, where children write about what they have experienced because it expresses what they see or think (Figure 2)
- Writing well needs to be an aim, where children understand the need for aspects, such as using punctuation, variety in sentence structures, wider vocabulary, names of objects, etc.

The activities planned were:

 Word jars, flashcards, sequence cards, and other TLMs prepared for a lesson.

This is usually done for new words that students are introduced to in the lesson, but their usage is limited to memorising the spelling. This was expanded to use as daily activities for sentence construction and combining a set of words to write about an event in the lesson. Thus, two sets of homework could be given to groups of students: one, as a group activity to be done in the classroom, which can, secondly, extend to an individual task.

Learning: Children who write a few words or some sentences during the classroom are more likely to use the words to write complete sentences. They are more likely to write if the content of what they are expected to write is discussed orally and they are given clear instructions to write it down in three to five sentences.

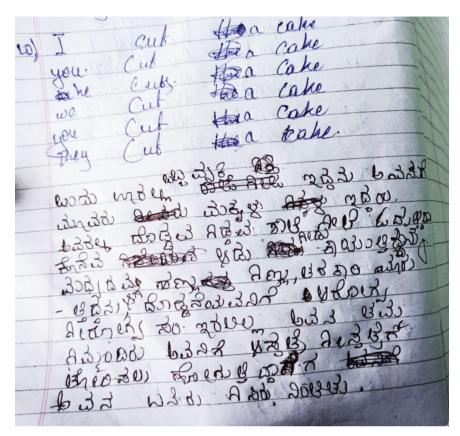


Figure 1. A student repeats a sentence structure and uses unrelated words in an attempt to describe a picture.

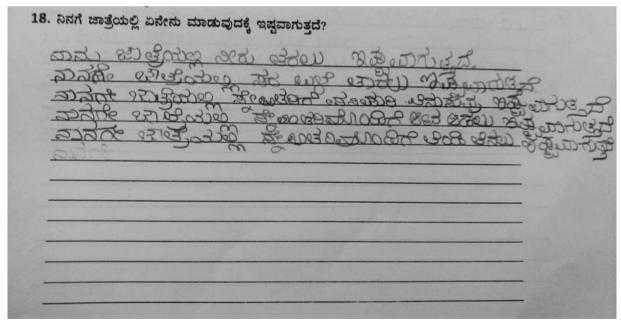


Figure 2. A good written response: Student describes going to a fair.

• Using a series of writing prompts

Teachers give topics to children to write about, but prompts to help them write, and clear instructions on what the focus should be, are often ignored. A sample of how this can be improved is shown in Table 1.

Table 1. Writing prompts

Topic	Day 1	Day 2	Days 3 and 4
Making a list of daily routine activities	Draw a clock and divide it into 5-6 activities. Shade the different parts using different colours (it should look like a pie chart).	Write down the activities with Time. Also, add other activities that were not shown on the clock.	Use the list to write about your day – each item on the list can become a sentence. Also add a few extra things, such as: - A line about your favourite dish for dinner. - A line about what other people in the house do while you are watching TV or playing with their friends.
Writing about your village/library	Make a list of everything you see.	Make a note of the activities in terms of: What – Who – When – How	Write sentences from the details in the table.

Learning: Writing prompts are necessary, but they need to be decided and assigned while factoring in different aspects. For example, a teacher had asked students to create a story using *jodu padagalu* (words like *alli-illi*, *poori-geeri*, and *hocus-pocus*) in

Kannada but had not illustrated it sufficiently. Thus, students created stories by turning almost every word into a *jodu pada*, and the stories they wrote were almost unreadable!

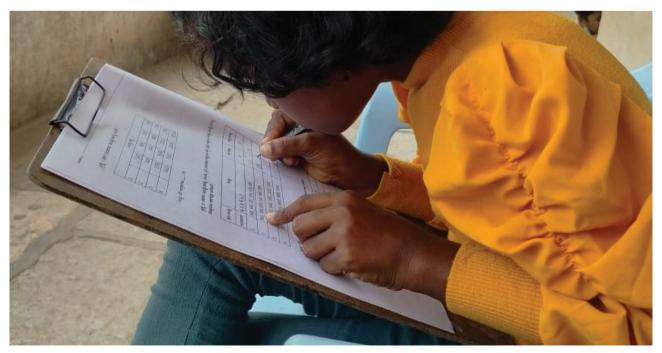


Figure 3. Writing prompts with clear instructions help reinforce language learning.

Maths

While conducting maths assessments, it was seen that a common challenge is that children are most comfortable with repeating 'procedures' that they know. For example:

 They assume that any two numbers given vertically need to be added. Or, even if they understand that they are expected to multiply the numbers, if they do not know multiplication, they add the numbers because it is what they can do. They are only exposed to a few strategies for basic operations, such as drawing sticks to add or subtract. It is time-consuming, and likely that if there are four to five sums given, they complete only a few of them and leave the others.

This led to the conclusion that children are not being taught poorly, but that the exposure that should be given as reinforcement is very limited. A few examples of activities seen as reinforcement are shown in Table 2.

Table 2. Reinforcement activities for maths

Topic	In the class	Outside the class	At home
Sorting and counting	Counting activities as per the <i>Nali-Kali</i> cards	Giving children cut-outs of different kinds of flowers and asking them to arrange stones to represent the number of petals	Collecting leaves, flowers, grass, etc. while coming to school and sorting them by colour/shape/number/texture, etc.
			Counting at least 5 objects they see in their home or around and showing these in their drawings.
Patterns	As a group, they practice continuing a given sequence		Creating and drawing their own patterns
Number sense	Using arrow cards to create and read numbers, showing their expanded forms, and writing them in words.		Creating their own arrow cards: Children can be assigned to create specific arrow cards based on whether they are still at the two-, three-, or four-digit number level. Writing the expansion form and the number in words.



Figure 4. A student's work on creating a correct sequence.

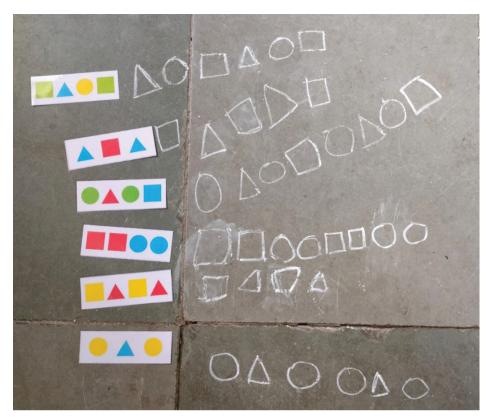


Figure 5. Another student's work on creating a correct sequence.

Concluding remarks

I have drawn a lot from my work on reinforcement with teachers and children. Some of these learnings are:

- Activities can be constructive in reinforcing learning based on how they have been planned, and how clear the given instructions are.
- On any day or week, good reinforcement activities can be planned by reflecting on a few basic aspects, such as how much time children have spent on writing activities and inside the classroom. As a practitioner, if we are able to set a limit on this, we would be able to map that we are largely focusing on one to two areas (such as memorising spellings of words, solving sums) and are not maintaining diversity in reinforcement activities.
- A lot of TLMs developed for the classroom are not used to their full potential because they are not connected to reinforcing learning. Spending some time giving instructions to children for using TLMs on their own is a reinforcement in itself, and also gives children the space to explore a topic on their own.
- Alternate pedagogies can start with simple activities and evolve slowly, such as sitting

outdoors to narrate a story or dividing a highstrength classroom into indoor and outdoor groups with different activities. Children who are assigned outdoor activities can do simple surveys and data collection, shared reading of texts, solving exercises whose instructions have been given by the teachers, etc., as they can carry out these activities even without the direct supervision of the teacher. This need not have an immediate impact, but some steps can also be taken with the objective of making the class fun. Especially in schools where student strength is very high, such steps would bring qualitative engagement of all the children, whereas otherwise, only a small group of students would be able to follow the teachers' plan.

I believe adding significance to reinforcing learning adequately and appropriately would improve learning and also have a much larger impact, such as the children finding the school a happier place; feeling free to give spontaneous answers, completing their home assignments enthusiastically because they are more engaging, and having teachers who do not read assessments as students' effort to 'reproduce' what has been practised, but as an opportunity to reinforce what may not have been adequately internalised.

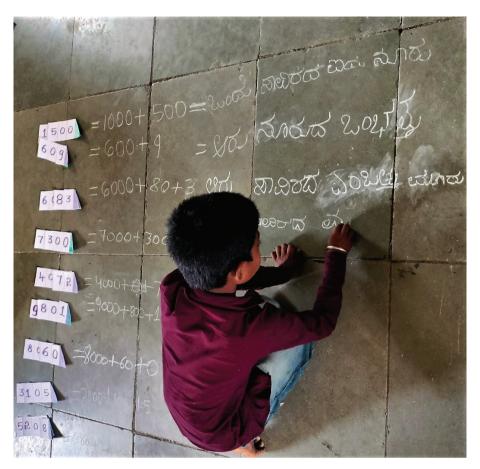


Figure 6. A maths reinforcement activity that children enjoy.



Archana R is a Resource Person with the Azim Premji Foundation at Yadgir. Her interests include children's literature, films, and critical pedagogy. She is passionate about books, cats, and anime. She has an MA in English from Manipal Academy of Higher Education. She can be contacted at archana.r@azimpremjifoundation.org