

In this thought-provoking piece, the author muses on an experiment that was carried out, resulting in not only reinforcing the knowledge of the learners but that of the teachers as well.

The social science programme of *Eklavya* (1985-2002)ⁱ was an alternative tried out in eight government schools of MP across three districts. This experiment was not just with alternative textbook design but also teacher training and assessment as part of a holistic effort.

Setting the tone

My colleague Rashmi in her article for *Learning Curve* (August 2010) mentions that the project ‘... raised questions about what one should expect in terms of understanding and achievement from the children who had studied the new texts. Quite naturally, this led to a discussion on how to evaluate these students and gauge whether they had achieved the required level of conceptual clarity and skill development demanded of the new content and teaching methodology’.

Hence, learning from experience and evolving practice for all, not just children, was embedded in the programme. One of the constant reminders for this was the open-book examination pattern that we opted for, following in the footsteps of the Hoshangabad Science Teaching Programme,ⁱⁱ as the best counter-position to the rote learning, then prevalent. This structural reminder kept our sights on the curricular objectives that we had set, but which had presented many challenges, and were difficult to predict.

Open-book exams

An incident of the first year, 1989, when this was introduced, brought to the fore the central cultural challenge of the open book system. At a rural school in the Dewas district, just a few days before the examination, one of the boys came up to the social science teacher with a request:

‘Sir, can you lend me your textbook?’

‘What! The whole year has gone by, and you have not purchased the book?’

‘Sir, *kiraya le lejiye* (take a rental from me),’ said the boy, without blinking.

‘This is ridiculous, just take it!’

This was the central challenge that we faced for the first few years. The usual practice for social sciences was to mark portions of the textbook passage that were meant to be learned by heart and reproduced in the examination. The questions asked were always from the textbook. Anything different was considered ‘out-of-course’; not appropriate. In such an atmosphere, the open-book exam/test was interpreted as licence to copy from the textbook.

After a year or so, students began realising that it was not that easy. If they had not read the text properly, they would keep turning the pages or copy down irrelevant passages. Even with teachers, it took a few rounds of the Board Examination for them to internalise the broader objectives of assessment. As a follow-up during training sessions, there was practice for distinguishing between comprehension questions whose answers could be located in a certain passage of the text and those of reasoning, in which the component elements could be spread out across the sections of the chapter. Questions requiring reasoning could be of various kinds, such as those that needed locating and summarising the scattered elements in the text, comparing situations, applying an idea, extrapolating, expressing an opinion, etc.

The open book system was really helpful in addressing questions related to visuals, whether they referred to pictures, maps, tables or illustrations. Comparing visuals across chapters, searching for new elements in the pictures, comparing them to contemporary life – the possibilities of creating new questions around visuals were tremendous. This was, and is, the central point for open-book examinations – increasing the capacity to design new questions and not using the questions in the textbook.

An example: Farm owners in the USA cultivate a single crop on their farms that stretch over hundreds of acres.

- a. How is this fact illustrated in the picture on page 24?
- b. What is the advantage of growing a single crop on such large farms?

This also had an effect that went beyond examination and started influencing classroom practice and students' relationship with textbooks. Children pored over pages, looked at details, asked questions and marked land and ocean on the maps. For us, these experiences pedagogically strengthened the idea that illustrations were not just fillers but an integral part of text. This also allowed much more creativity in designing chapters with storyboards and visuals spread out across pages. Content and pedagogical experiments could be merged in creative ways.

Some memories from a rural school remain etched in my mind. The teacher at this school would do a mundane exercise and I was always puzzled by it. Before beginning a chapter, he would ask students to count the pictures, the illustrations, the tables, graphs, flow diagrams and anything visual in the chapter. Later, I realised that by getting them to count, he was actually helping them to concentrate on these. It is the visuals in the chapters that always fascinated children and they would look over maps and illustrations with great awe. One must remember that these were the few printed material available in their surroundings and the novelty of the visuals was appealing. At times, the teacher would also point to the sub-headings of the chapter and follow this up with an introduction of his own.

Open-ended questions

Another component of the open-book assessment was the open-ended questions. Children's opinions were sought on a given situation such as, 'If you were the minister of finance and desired to increase revenues what would you increase: the tax on salt or the tax on cars?' The idea was to elicit their answers and the reasoning behind them rather than match them with the text or the view of the teacher. It took some practice to internalise this aspect.

Challenges

There were two central challenges to the open-book examination. One was designing new questions pertaining to the text, but different from the existing questions in the textbook. This required a lot of practice that was usually part of the paper-setting workshops for board exams. The initial hesitation - that it was feasible for the physical sciences but not for social sciences - was overcome. The other challenge was encouraging children to write in their own words and the teachers becoming confident

about this process.

The 'Dhar Workshop' was born out of a suggestion from a colleague, who proposed that we should do a workshop using a sample of the answer scripts of children much after the board examinations were over and hence, with no reference to checking and allotting marks. This was to collectively examine what children were writing and their thought processes behind these answers. This was a rich experience for all. Once you ignored the grammar and sentence construction errors and difficulties and with no pressure to mark, the children's thought processes started emerging in a rich manner that impressed everyone. Besides, when we saw a pattern in the answers and asked ourselves how this was emerging, we could see both, the strengths and weaknesses in our own text. This was as much a mirror for us and helped us considerably in revising the re-formulation of the text.

Insights

Some important insights emerged clearly from the analysis of children's scripts. We saw that children writing in their own words and learning how to argue their views would not necessarily cover all the expected 'points' that a model answer might demand. We have to look at and encourage their ability to put forward their arguments in writing rather than just mentioning all the expected points. That there would be a fair amount of variation in expression is to be expected and this had to be appreciated over the reproduction of the 'model answer'. It takes years to build the ability and confidence to write in one's own words on any subject.

The objectives of the open-book examination system served a transformative role. It clearly indicated and sent appropriate signals to all – teachers, students and the Eklavya team. Looking back and comparing this experience with the curricular reforms by NCERT (or SCERTs), one can see this missing element in the latter's efforts. If there is an opportunity for curricular reform, it should be to change the sequence and begin with changes in assessment and come to textbooks later.

Importance of orality for practice

The good thing about writing in their own words was learning to argue orally. Practice is not just for the written form. In fact, this was the natural strength of the society around that had been predominantly oral. Hence, arguments were rich, questions

sharp and opinions were expressed fearlessly. We encountered this organic strength in many ways.

At the end of every section of a chapter, there was a text box with some comprehension and reasoning questions. Teachers were very supportive of this design since it helped to check comprehension and also keep to the central ideas that were being highlighted. However, one teacher, pointing to the questions, said, 'The speed breakers that you have introduced are at times too many. Keep a balance between stopping to check and the flow of the chapter.' This emerged from teachers' practice and became a guiding principle for our chapter design.

Classroom observations showed that most of the comprehension and reasoning questions were taken up orally and they increased children's participation and engagement with the text and links with the social world around them. Some questions would baffle teachers. For example, with reference to the text that explains how a voter's list is drawn up, one child asked, 'My family's names are registered both at the village and in the city. We have two homes. What is wrong with that?' The teacher was stumped but promised to get back on that. If you read one of our teacher's books on his classroom experience of teaching this course over a decade, he cites many questions that children asked in the classroom (See Prakash Kant). A memorable account in his book is the volley of questions that came pouring forth when he introduced the globe. While he was grappling with the explanations one child asked, 'How do you know all this? Who told you?' In another school, while a teacher was introducing the forms of Hindu religion, a child commented, 'But I don't believe in God' and another child remarked, 'Sir, how will he be redeemed? (*Iska kya hoga?*)'.

Exploring orality was further strengthened around the mid-90s when many younger scholars joined our team. During this period, we revised our textbook and had begun to look for evidence to the question of whether the conceptual development embedded in the textbook was actually taking place (See Rashmi Paliwal). We designed questions with written answers and oral discussions with children that would give us a rich background and cues for exploration.

Oral discussions also helped to chart the children's train of thought. Our texts used stories and case studies extensively. Children would easily get immersed in the story details, but could they go beyond a specific story and relate to the abstraction that the text was trying to draw upon? Such

explorations provided us with feedback for the chapters. Another question that was explored orally was whether children could handle more complex texts at the class VIII level. It was surprising that they could handle the abstract power dynamics of society, but structures of governance appeared out of their frame of comprehension. This latter realisation led us to formalise a study now published (See Alex M George). The oral component of the textbook engagement was extensive and became an organic part of classroom discourse but unfortunately, we could not make this a part of formal assessment.

Question bank for teachers

The younger scholars who had joined the team suggested that we needed to provide teachers with practice questions. They felt that the questions at the end of the chapters were not sufficient to lead the children into writing naturally with some confidence. Moreover, the culture of teachers correcting and guiding the written work of students was absent. One way of overcoming this gap was to provide the teachers with a set of printed questions for practice. The team also helped in providing feedback to the teachers. A question bank started evolving.

Revising textbooks

We were fortunate to follow the principle set by the science programme - from the lab to the field. The initial textbooks that were prepared were considered as 'lab' prototypes and within a few years of the experience at schools, revising them was considered essential protocol. The first level of feedback was from teachers, especially during training sessions where the dialogue between teachers and the textbook writing team was crucial to understanding issues of social sensitivity and other requirements as perceived by teachers. The other feedback was from the team's classroom observations and field visits. The third level was from the analysis of answer scripts of the children, where, as mentioned earlier, patterns could be observed that indicated weaknesses in the text itself. With feedback from these different sources, issues of revision were tackled with confidence.

In summary

Practice is not just for children. Textbooks, teacher preparedness, assessment format, and school context are all variables and given the experience of children, we should be able to ask with an open mind how these variables could be tweaked so that learning is more conducive for all children. We have discussed this in detail in the section, *Writing and*

Revising the Books as part of the essay, *The Insider's Narrative* (See Poonam Batra).

The need for practice was constantly reiterated in the social science programme during its long history (1985-2002). These reminders reaffirmed curricular objectives, the practice of which built

the appropriate cultural atmosphere required for the programme. What however is important is not what we did for practice, but the idea that open and multiple reviews of curricular objectives would point to the pathways of practice to be undertaken in a particular social context.

Acknowledgement

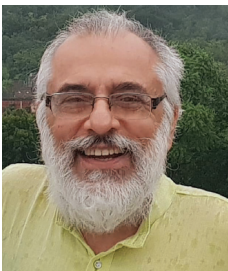
The author would like to thank his ex-colleagues Ram Murthy and Sanjay Tiwari for their inputs.

Endnotes

- i <https://www.eklavya.in/past-work-top/programmes-past-top/social-science-programme>
- ii <https://www.eklavya.in/past-work-top/programmes-past-top/hstp>

References

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