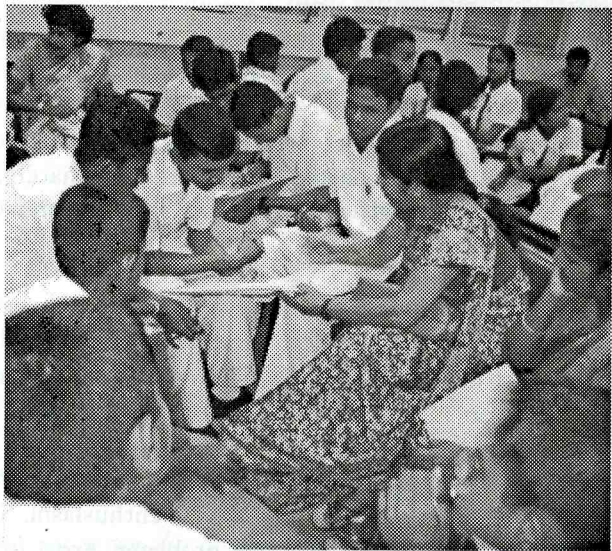


Teacher or Facilitator?

Facilitate for learning: Towards developing a “science culture” in the nation



“I can’t imagine why we learn science in this manner. See how devoted our teacher is? Entire syllabus has been covered by now. In addition, six past question papers have also been discussed with us. How many classes do we attend after school? But when I think of the examination I feel very uneasy.” Ironi went on saying at length.

Chithrini made a wise comment on that. “Hasn’t our teacher’s and our effort become fruitful? Three of us have scored over ninety marks always in past examinations. It is a very common thing that one falls into anxiety when thinking of examinations. Anyway, I’m quite confident that we all will get “A”s. But, I have doubts that three of us would use science knowledge acquired through this memory based process”.

“What Chithrini said is quite right, and Ironi’s version is also true,” said Hasika joining the conversation.

“As I understand now, science is not that kind of a subject which one should memorize notes and to score high marks at examinations. If someone achieves higher grades for a subject like this in such a written examination, that examination cannot be considered reliable for testing one’s scientific capabilities.”

“According to my knowledge, a subject like Science should direct us to explore on infinite space continuously, in the process enlightens our inborn skills and analytical power.” Ironi presented a very deep, philosophical statement.

“I happened to observe an activity which was done with grade six students a few days back. The lesson was so interesting, I thought how fortunate it was, if I were to be in that classroom.” Hasika said.

“Then, Science is going to be taught in such an interesting way in future ah?” said Chithrini.

“There was no chalk and talk teaching at all. Students were engaged in exploring different possibilities independently. Teacher was just acting as a helper to girls and boys to learn”. Hasika’s expression made the others inquisitive.

“We cannot understand what you said. Please explain to us about that lesson from the very beginning.”

“It is a bit difficult to explain an experience that I observed; but...”

Hasika tried to present what she observed as lively as possible.

“The particular lesson was just after the interval. Boys and girls rushed to the classroom as the bell rang and were ready for the lesson with their books open. Some were talking to each other. They were in their own world, mind you....”

The teacher entered the classroom. The children greeted her. “Son, shall we sing that verse?” asked the teacher from a boy.

“He would have been prepared for that earlier.”

“Yes Chithrini. I also thought that. On the other hand it’s not just a verse. It is related to the lesson – a simple verse that stimulates the interest of the students. While he sang the verse, teacher put up the verse written in a big demy sheet on the black board. On seeing that, the whole class began to sing the verse together with the teacher. Do you know? In fact, I also sang involuntarily.”

“My lovely leaves sway in the breeze
While, piercing the earth my great roots run
For I’m a tree – a blessing to the world
Protecting all life under the sun”

“Is that lesson in some way related to trees?”

“You are mistaken Ironi; Its not related to trees, but an exploratory activity on trees.”

"By that time boys and girls have got to know the contents of the verse. They discussed about the verse with the teacher. They entered into the world of flora through a lively discussion. A picturesque scenery representing flora in a variety of environments generated in my mind as well."

"Then that kind of imagination would have been generated in their minds as well" Chithrini. Hasika's face lit up like a fragrant flower of the Sinharaja forest.

"Then the teacher divided the class into five groups and distributed leaflets on guidelines for the exploration, colored pictures depicting a variety of plants growing in different environments, demy sheets, colored pens etc, to each group."
"Then the class would have been very noisy."

"That's what I wondered. But, there was not much of a noise. The guidelines were very simple. I think the colored pictures attracted the attention and they forgot to make noise."

"There was another wonderful thing."

"Among the things that teacher distributed to the groups, there was a small story named 'Dream Journey'. Boys and girls enjoyed reading it very much. I observed their faces. They were really interested."

"What were the contents of that story?"

"A boy named Malaka had been in a dream as if he is on a journey through a variety of environments. The journey was to see mangroves, seashore vegetation, hydrophytes, epiphytes and xerophytes."

"One could learn about the habitats and diversity of plants from that story alone."

"Did the lesson conclude at that point?" asked Ironi.

"Not really. That's the point where activity started, not the lesson!"

"Thereafter, members in the groups started looking at pictures, while the teacher placed a variety of parts of plants collected from various environments on the table. Each group had selected a particular kind of pictures. Boys and girls went to the table with the pictures in their hands from time to time. They took away the matching plant parts from the table to their working groups."

"The teacher visited each and every group. She observed what the children have developed with enthusiasm. She praised them; helped to solve their problems. Apart from that she evaluated each student and awarded marks".

"They discussed many things, argued. Sometimes they opposed. Then again they discussed and came to a consensus."

"At last they started work on demy sheets."

"Some drew pictures. Others wrote verses, pasted pictures, did some hand work, pasted plant parts. Ultimately, a creative caption was given to what they have prepared on the demy sheets."

"It was a sight to see."

"Then what did the teacher do? Didn't the teacher have anything to do?"

"The teacher visited each and every group. She observed what the children have developed with enthusiasm. She praised them; helped to solve their problems. Apart from that she evaluated each student and awarded marks".

"I got the idea – students were learning and the teacher was helping them to learn".

"Of course, it is the active learning process, and teacher is only a facilitator".

"The teacher was quite free, isn't it?"

"Yes indeed. Even the children experienced a lot of freedom."

"After that, group by group presented their findings to the whole class attractively."

"It was just like a variety show."

"Yet another point. Five groups were given five different topics. All discussed the findings of every other group and new information was also added during the discussion."

"The contributions of all groups built up the totality. A small encyclopedia on mangroves, hydrophytes, epiphytes, xerophytes and seashore vegetation was developed through the presented materials."

"Hasika, now don't they take down notes in their note books?"

"What do they study for the examination?"

Chithrini and Ironi uttered in embarrassment.

"Through their enlightened faces, I could imagine the confidence that had been built in their minds regarding what they explored through the activity. At last the teacher summarized; established; filled the gaps; in order to build up the totality of the subject content through a discussion. An invariable change occurred enabling them to face any kind of an evaluation or examination successfully".

"My point of view is a novel examination method should introduce to evaluate that kind of deep and broad knowledge."

"In addition, there was a feed forward program planned to eliminate the conventional note books. It was a field study tour. The booklet that was prepared to be completed during that tour was very interesting."

"In that sense, the notes jot down in the process of the actual experience obtained from the field study could be used as lesson materials."

"Chithrini! What about the story 'Dream Journey' given to the students?"

"It could also be used as a note itself."

Ironi replied before Hasika.

Chithrini with a peculiar big smile in her face asked another question.

"Hasika, what happened to the text book that boys and girls used to take at the very beginning of the class?"

Hasika fell into an uncomfortable situation by the Chithrini's question. The expression on her face was puzzled although she smiled.

"Now listen. There is no teaching based on the text book. But, text book is a valuable resource as an additional learning material."

Ironi made that statement on behalf of Hasika, smartly. Hasika got another bright idea, "Why not get more information from the "internet"?"

"But, we have to go to reliable websites such as those with <.edu> and <.org> addresses".

"I would like very much to present the findings of the group exploration in front of the whole class. Everyday, in each of the activities, if we were given the opportunity to present, it will eventually develop our personality."

Ironi spoke with great enthusiasm. She further went on to say " If the learning facilitation process goes on as in developed countries, Science Education in our country would be reformed enabling us to think scientifically; to solve problems logically; to explore and reveal relevant information; to observe accurately; to make conclusions through experimentation; we would be directed involuntarily."

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"When the above mentioned aspects become our habits that we practice throughout our life-time, that is the day of the beginning of a 'Science Culture' in this country. That kind of Science education provided by the schools will enable to direct our brothers and sisters towards a science culture in future."

Chithrini spelled out those words in a harmonious tone.

"Shall Chithrini, Ironi and I become dedicated facilitators who contribute to initiate the science culture in our nation?"

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