

Learning about Biotechnology for My Future

By Angga Subastian, Grade 9 student at MTsN Tlasi Kabupaten Sidoarjo



SINCE Ibu Endang Mujiati, the science teacher at my school, has used more varied teaching methods, learning in her classes is no longer boring.

“This type of learning helps me not only to learn science, but also can be applied in social studies to prepare me for the future.”

After that we added vinegar so that we reached a pH of 3 or 4. Then we added one teaspoon of citric acid and a little bit of tea. We waited till it boiled. The liquid was then poured into a sterile tray and left to cool down. We covered it using sterile paper, which was a piece of newspaper, which has been ironed.

When the liquid had cooled down, we put the *Acetobacter xylinum* agent into the liquid. Then we covered it with a piece of paper. We had to leave it for 7 to 8 days until it was ready.

One occasion that impressed me the most was when the teacher asked us to produce *Nata de Coco*. We were really interested in doing this lesson, because apparently making *Nata de Coco* is not that difficult.

During practical lesson, we had different tasks. Some students brought coconut water, prepared sterile trays, sterile bottles and sterile newspapers. The equipment and materials used were as follows: stove, pan, strainer, spoon, sugar, urea, vinegar, citric acid, mineral and a bacterial agent *Acetobacter Xilynum*. They were already available at the laboratory. After all the equipment and materials were ready, we started the production process.

There are two phases in the production process, preparing the liquid medium and processing. First, the preparing of the liquid medium starts with boiling 5 liters of coconut water, then adding 250 grams of sugar and one table-spoon of urea.

The second phase, the processing, follows after the growing phase. You have to wash the *Nata de Coco* and then soak it in water for two or three days. During this process, the water must be replaced regularly. After that you cut *Nata de Coco* into any size you like. Boil it in water and rinse. Now, *Nata de Coco* is ready to be consumed.

Ibu Endang suggested that we put our *Nata de Coco* in attractive packaging and that we should try to sell it through the school shop. This suggestion broadened our knowledge about entrepreneurship. This way of learning not only teaches me about science, it also allows me to apply my social studies knowledge for my future.

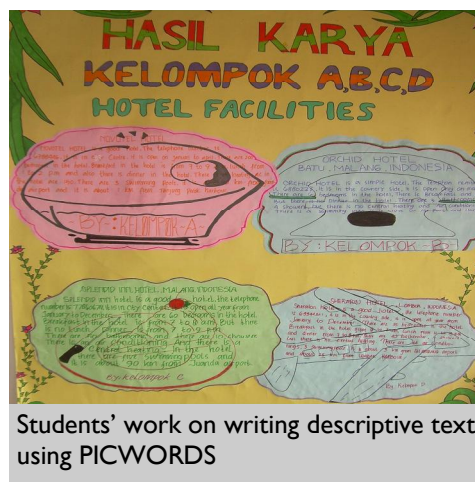
Writing Descriptive Text using PICWORD

By Samsul Huda, S.Pd., English teacher at MTs Salafiyah Merakurak, Tuban

LEARNING in our school is gradually getting more interesting, enjoyable, active and innovative., thanks to the training and guidance from DBE3, that started with BTL 1, then BTL 2, and BTL 3.

After the training, I always try to apply what I learn from the training in my lessons. One of the things that I have applied was using PICWORDS (Picture and Words) as learning media to help students learn how to write, especially how to write *descriptive text*.

A lot of students used not to find this interesting when I taught them to write both descriptive and narrative writing – they thought it was difficult. But when I tried using PICWORDS as a media to teach writing. The result was great! Students, who are usually



Students' work on writing descriptive text using PICWORDS

lazy and don't care, enjoyed it and felt that it was easier to learn how to write a *descriptive text*. When learning about public services, students were first introduced to symbols represent-

ing hotels. The different classes of hotels, facilities, locations and different kinds of transportation available to reach the hotels were also introduced.

When the students were familiar with the symbols, they wrote a description of the hotels and their facilities. The students' ability to write descriptive text improved considerably.

Students' learning reflections showed that they like it. A student, Maratus Sholihatur, said this way of learning that it is enjoyable because it uses interesting media. Another student, Liulin Nuha, said: "It (learning) was enjoyable, made sense and it helped me in writing descriptive texts. It was fun too!"

South Sulawesi

Entering Students' Work in a Class Portfolio Competition

STUDENTS' work that is collected from each lesson is well used at SMPN I Makassar. All students' work is put together to make students' learning portfolios and to be used as a learning resource.

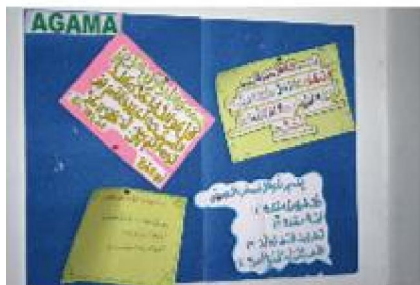
These class portfolios look really good. Everything is neat and tidy and includes administrative documents and displays of students' works. Kasafuddin, the School Principal, made the class portfolio a model of classroom management. Sounds interesting? Of course! What's more, this class portfolio is jointly managed by the students and teachers. The result is a well-organized classroom.

The Class Portfolio Competition was held for 10 days (from 14-26 December 2009). 1,080 class VII to IX students participated in the competition. The aims of the competition were 1) raising students' awareness about classroom work that can support active learning, 2) improving the performance of teachers, 3) increasing

students' and teachers' responsibility for maintaining classroom equipment and resources, especially in keeping displays of students' work up-to-date.

During the 10 day competition, a team of evaluators assessed each classroom. This team consisted of: the Principal, Vice Principal, 2 teachers, and one student (head of the student organization - OSIS). Four aspects of the classrooms were assessed: the aesthetic aspect (0-15), cleanliness (0-15), students' work (0-40), and classroom administration (0-30).

The latter includes items such as classroom arrangement, attendance book, timetable, class organizational structure, schedule of classroom cleaning, and fixed classroom features like the "Pancasila" poster and photographs of The President and Vice President. Ten classes were rewarded with attractive prizes, including a prize of Rp. 300.000 for Class VIII-5 which secured first place in the competition.



Displays of students' work, classroom administration, first aid box, wash basin and hand towel are all arranged neatly

Better Teaching and Learning Training in Core Districts

Kurniati Syamsuddin: “I Realize that my Teaching Methods Need to be Updated.”



AFTER 20 years of teaching, Kuriniati realized the importance of updating her teaching methods. Kurniati Syamsuddin is a Bahasa Indonesia teacher at SMPN 1 Ma’rang, Pangkep. She reflected on her teaching experience shortly after the end of the Better Teaching and Learning 2 training (BTL 2) at SMPN 1 Mnasate’ne (12-15 February). She was surprised by the students’ enthusiasm when she did her practical teaching as part of the training.

When she compared the power of active learning, she even shed a tear as she told of the weaknesses and the flaws of her approaches and teaching methods to date. “I have been teaching for about 20 years, I now realize that my teaching methods need improvement,” she said.



The participants’ enthusiasm also showed during training in three other core districts, Enrekang (6-8 February), Jeneponto and Luwu (19-22 February). One hundred and ninety participants comprising Mathematics, Science, Social Studies, English and Bahasa Indonesia teachers, school principals and supervisors from four districts learned in a participative manner about Better Teaching and Learning. The learning that is based on the Contextual Teaching and Learning (CTL) approach focuses on cooperative learning, asking high-order questions, problem solving, appreciation of students’ work and reflecting on learning.



Photos of active learning during teaching practice at: 1) SMPN 2 Pangkep, 2) SMPN 1 Bajo, 3) SMPN 4 Talamatea Jeneponto, and 4) MTsN Binamu Jeneponto

What are the Advantages of Contextual Learning?



Kurnia Syamsuddin:

“It helps students to focus their attention during learning.”



Naima, S.Pd., Science Teacher at SMPN 1 Bajo:

“It makes students learn more actively, helps students absorb material and improves students’ life skills.”



Bacce Sareta, English teacher at SMPN 1 Anggareja:

“It integrates life skills into learning, especially academic and social skills.”

Displays of Students' Work as Part of a School Festival



Tantu, Principal of SMPN 1 Lilirilau

THIS brilliant idea came from students of SMPN 1 Lilirilau, Soppeng district. A display of students' works was set up as part of the school sports and arts festival. The teachers and the principal made an active contribution to this successful initiative. SMPN 1 Lilirilau even provided some funding from the BOS (school operational funding) to provide the materials needed, such as plywood for displaying students' work in every classroom, cardboard, display paper, etc. "We support them fully, because we are committed to our teachers imple-

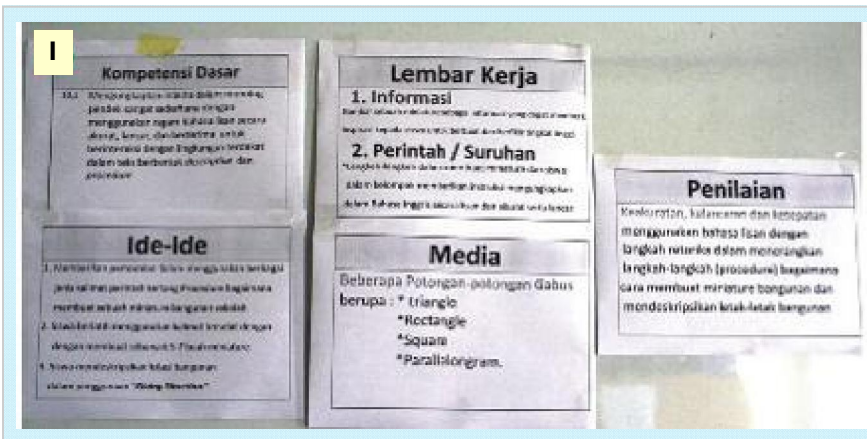
menting active learning," said Tantu, S.Pd., the DBE3 partner school principal.

For three days from 28 to 30 December 2009 SMPN 1 Lilirilau displayed the students' work. The sports and arts festival involved students from class 7, 8 and 9. During the event students were keen to show their best pieces of work. They were all the more enthusiastic because their parents attended the event.

All the students' work was mounted artistically on the decorated plywood. Other work was put in big envelopes made from cardboard. All this work were the results of meaningful learning about the basic competencies which formed the basis of their teachers' lesson plans. All this work will be assembled to make students' portfolios.

Selection of Students' Work Displayed during the School Festival





Impact of the Program in DBE3 Partner School Maintaining Active Learning

*What I hear, I forget
What I see, I remember
What I do, I understand (Lao Tse)*

THESE words of wisdom were what motivated Haddika, an English teacher at SMPN 4 Baranti Sidrap, to try to think of and implement the best learning activities in his classroom. He believes that almost every school has good human resources. However, not all school managements practice what they know. He was referring to the teachers and principals who are familiar with PAKEM method that they learn about during training but do not apply it.

They learn about systematic and cooperative learning, as well as critical thinking during CTL practice teaching in the training. Unfortunately, sometimes when they are back in the classroom, the knowledge is not applied, it loses its meaning and does not benefit the students.

The school is still very young and has not many former students, yet Pak Haddika saw this as a potential opportunity to develop new learning models. Moreover, the school principal, Drs. Samsuddin, was very proactive in supporting the improvement of the quality of learning.

He was committed to developing the meaningful learning that already existed in the school. Not just in order to apply the latest learning methods - Contextual Teaching and Learning - as he understands it, but because he likes to see the pleasure and absorption of the students in learning. He is committed to implementing active learning, learning that encourages the development of students' life skills.

You can see Pak Haddika's lessons in the photographs. By writing short monologues the ability of students showed their ability to give directions. And they practiced the competencies of writing 'Procedure and Descriptive Text'. They did this by creating and describing a model of the school.



Photo descriptions:
 1) A flow chart of learning targets prepared by teacher
 2) A worksheets given to students
 3) A model created by the students
 4) and 5) Group work and division of tasks
 6) Group discussion
 7) Students presenting their group's work.

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