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Curriculum Based Learning Tools Project for Year 6 Human Reproductive System

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Learning science can be both exciting and effective for primary school students. Teachers all over the world are taking advantage of diverse learning preferences and aptitudes. Among others, the use of visual aids and technology is frequently used to help students with their curriculum. Field trips, storytelling and analogies, group discussion, problem-based learning, role play and simulation require a lot of coordination between students and teachers. On the other hand, hands-on experiments, interactive demonstrations, and outdoor nature exploration may incur additional costs to conduct.

Here, we would like to have a discussion concerning how we tried to apply visual aids in science classrooms for students in year six at Sekolah Kebangsaan Kuala Pilah. Hence, this approach uses visual aids to enhance classroom instruction, such as posters, diagrams, tools, and films, in class and on excursions with natural objects, practical demonstration of methods of operation (experiment, machine work, inclination patterns, theorem proofs, planning methods and annotations. Students interact in the activities of hearing, seeing, experiencing, reading, observing, and relating new information to previously learned and retained information that is required for the first level of knowledge acquisition.

A total of 68 students from Year 6, Sekolah Kebangsaan Kuala Pilah, were involved in this project. In order to provide instructional materials, we chose the Science Year 6 topic "Human Reproductive System" for our study. We made use of inexpensive, easily repeatable resources that might be reused outside of class, such as recycled materials. The students were guided to relate new approaches with previously learned and retained information that is required for the first level of knowledge acquisition. Table 1 shows a list of materials that we used in making the Human Reproductive Organ Model.

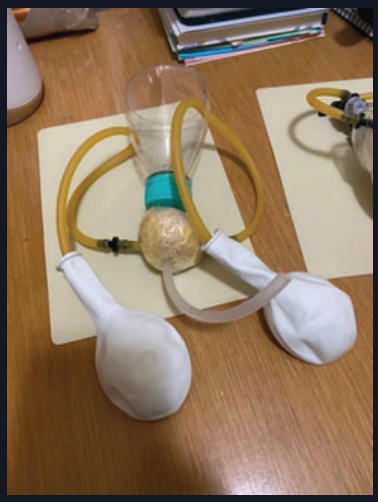
Table 1: Material to Produce Human Reproductive Organ Model

MATERIAL	DESCRIPTION	PHOTO/DIAGRAM
1	TOP PLASTIC BOTTLE WITH CAP	
2	PLASTICINE CLAY	
3	3 PLASTIC TUBING (10 CM EACH)	
4	2 PLASTIC TUBING (4 CM EACH)	
5	2 LINEAR CONNECTORS	
6	2 "T" CONNECTORS	
7	2 LATEX BALLOON	

To assist students in visualising the structure and operation of the system, this reproductive organ model of humans is separated into male and female reproductive organs. We gave them all the materials mentioned above and instructions on how to connect everything. We discussed the reproductive system's anatomy and function throughout the procedure. One method they learned while enjoying the activities was in this way. This makes it simple for them to recall the subject matter. As a result, they came out with the Human Reproductive Model, as shown in Figure 1.1 below.

Figure 1.1 Human Reproductive Model

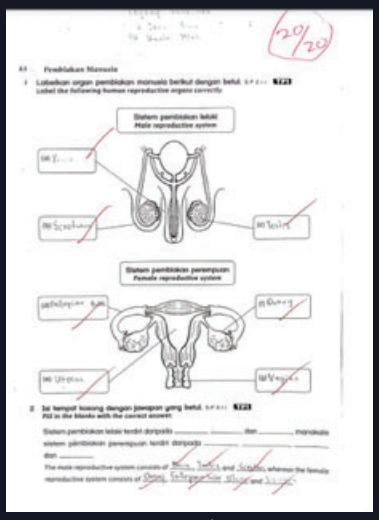
a)Female Reproductive System Model

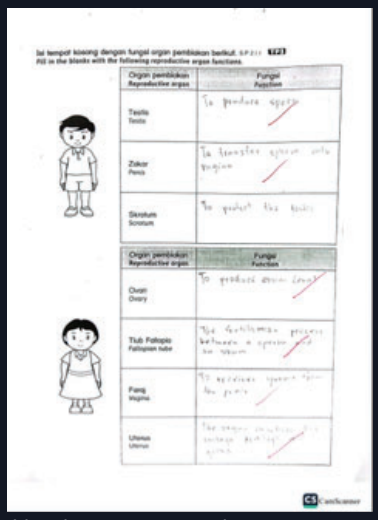


b) Male Reproductive System Model

At the end of the program, a set of questions was given to the student (refer to Standard Question on Human Reproductive System, KSSR). The result of the test indicates the student is able to fully understand the structure and function of the system. Figure 1.2 is the quiz question that they have to answer within the time frame given.

Figure 1.2 Quiz Question





Note: This quiz was provided by the science teacher

Result

Figure 1.3 Student quiz result

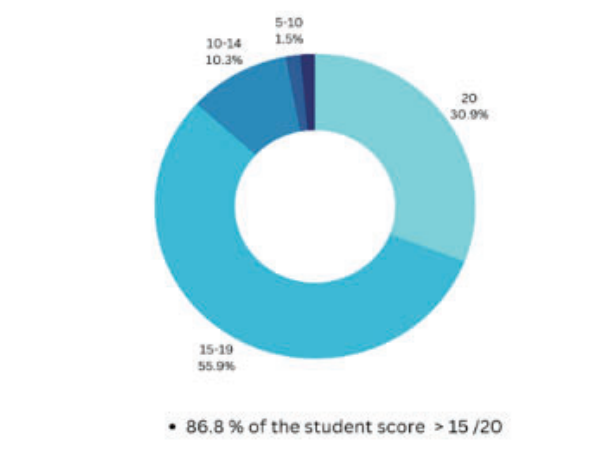


Figure 1.3 The figure displays the pie chart of the student's test results. Surprisingly, 21 individuals, or 30.88% of the class, received a full mark, or 20 marks, in this category. Following that, 14 students out of 68 pupils received 19 marks., obtaining 20.59% of the total participants. Nine students, or 13.24% of the class, scored 17 out of 20. The pie chart shows that, on average, 86.8% of students receive at least 15 out of a possible 20.

In conclusion, this project-based learning methodology may be a tool that emphasises the learning process. It provided a beneficial learning environment and boosted science students' willingness to learn.

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