

Case studies in science education: tom – grade 5

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Introducing the Case

Despite of its disadvantages, it is obvious that Tom applied constructivism learning theory in discussions, assessment and evaluation Science for the students.

During discussion, he, as the teacher, is trying to draw the lessons out from the students, instead of the other way around. Infusing personal experiences, particularly the reactions of the students, into the processes that the lesson is describing, the spit lesson has effectively drawn the student closer to the lesson. As a result of using constructivism in learning, Tom's classroom, at least during the clip, were packed with several group activities. In addition, since personal experiences and reactions were involved with the lessons being imparted, huge the class participation has become convenient for the students.

Aside from the different manifestations of constructivism in learning, Tom also integrated games with the lesson to smoothen out the retention of the lessons to the students.

Constructivism has also been observed with Tom during students' evaluation. In the clip, Tom gave a classwork where the students are to describe what they learned in their own words. While on the clip, Tom was evaluating the students' individual learning in essay form, he equally responded in each of the student's work, in contrast, with the usual assessment where the answers of the students are compared against certain key answers.

During discussions and assessments, Tom has given value to individual learning capability of each of the student, giving more emphasis on the students rather than the lessons being imparted, through constructivism in learning. Moreover, the practice that has tapped more challenging and diversified tools in teaching; a diversity which is important to view the students learning, or responses to each lesson, in different perspectives. Effective determination of the students' learning responses is equally important for the teachers to better educate the students.

Trying New Ideas

Leaning on the constructivism theory of learning, in comparison with the emphasis that the NSES Assessment Standards require, Tom's method of assessment has applied less lecture and reading since the discussion is actively going on within the students as their experiences are being involved. In contrast, there is a high possibility that the learning level, with each of the students actively participating, will begin individually instead of collaborative learning; though, this possibility is being alleviated through various the group activities, which has been observed mostly throughout the clip.

The assessment methods that Tom utilizes, including Cinquain poems, concept mapping, storyboards, use of journals and Venn diagrams, are designed to address and focus on the highlights that are needed to be learned by the students. Since the output of each activity is individualized, meaning, there is no specific measurement to compare the correctness or completeness of the output, itself, Tom's methods address the standards of fairness, minimizing stereotypes in the assessment. As mentioned earlier

though, this practice of learning assessment will be difficult to be evaluated for the teacher.

Reflecting and Building on Change

The method utilized by Tom in the first activity in the clip, was not able to show the first phase of 5-E. The control of the student, on the other hand, had tremendous effect with the student exploring and able to express and elaborate, in their own words, the theory that the lesson is driving at; the lesson that is being built into the student's understanding. The activity also flared to touch all the other stock knowledge of the students in order to better explain the theory behind the lesson, which presents a better opportunity, as well, for Tom to evaluate the range of understanding of the student in science.

References

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