

Creating Cognitively Teachable Moments



An early twentieth century Swiss psychologist and educational theorist, Jean Piaget, spoke of *cognitively teachable moments* (CTM's). These are the points in time in which a student's ability and readiness to learn are at a premium, and the acquisition of knowledge becomes as innate an impulse as the most primal of survival needs. At these points, retention rates and comprehension levels are evidently enhanced; nebulous concepts are ready to embrace a distinctive clarity; and, never-before-made connections are primed to appear obvious and commonsensical. So treasured are these instances that experienced educators around the globe salute their utility by crediting to them the paving of the avenues on which genius itself travels. No flash of insight has ever been noted or seized that wasn't during one of these moments. These are indeed golden moments in time.

After observing several of these CTM's phase in and out, it became evident that, somehow, these moments were being triggered. The factors at play were either external and environmental, or internal and student-generated; perhaps both were operating in tandem. Whatever the case, these dynamics were certain and evidential. Identifying their triggering mechanism(s) could conceivably lead to the ability to strategically evoke and

manipulate them. Such a skill would be integral and invaluable as a component in every teacher's reservoir of pedagogically sound techniques.

If this triggering mechanism proved environmental, certainly every classroom would require retrofitting, despite the economics. If it proved to be an internal, student-generated phenomenon, a pervasive student probing would be warranted. For, this mechanism's discovery would be nothing less than revolutionary in its implications relative to student aptitude, instruction, and achievement.

Additionally, if the triggering mechanism proved to be singular, it would necessarily be multifaceted; for, the CTM's tended to occur with spontaneity at random times and in seemingly diverse situations. During their onset, a discernable and unique mental disposition was evident in the students. Enthralled in this mindset, students were abuzz with eagerness; a susurrus of mental excitement had betaken them; they'd been enveloped by a personal thirst to learn, a yearning to understand, and a fleeting, though insatiable, need to know.

In this mindset, whether incidentally or intentionally induced, the innate doors of their comprehension stood entirely ajar. During CTM's, whatever entered those doors tended to remain clearly and indelibly impressed. Even the associated inferences, which tend to exist on the fringe of the comprehensible as mere notions and inklings, were maintained with a definitive clarity.

Now, all that remained was identifying this triggering mechanism. Though the multifaceted nature of the mechanism caused it to appear at different times to be any one of many possible things, and because it was potentially external and internal, it took several months of observation and scrutiny, including then excluding salient possibilities,

before it could be isolated. Finally, the preponderance of evidence indicated a solitary provocation: an *interrogative!* Yes, it was a **judiciously timed, logically phrased, enthusiastically presented, emotion-eliciting QUESTION.**

It didn't seem to be a matter of consequence whether the question was teacher-introduced or student-conjured; it seemed equally potent, productive, and utilitarian. This question (aside from the above listed descriptions), upon even casual inspection, demonstrated other hallmark characteristics. It needed to be related to the students' current knowledge base, or measurably based on something not entirely outside of the students' current conceptual framework (that is, within their zone of proximal development).

[The students' knowledge from their accumulated life experiences (schemata) serves as a hinge point for new knowledge. The students' previous experiences also serve as scaffolds upon which more conceptually sophisticated knowledge can be built.]

The CTM-inducing question also needed to point enticingly beyond, creating instant wonderment. When students were caused to wonder, typically they were at once caused to *care* (Caring negates apathy, a major hindrance to student learning). If the question met the above criteria, the CTM was achieved, and the teacher had but to seize the moment and impart the substance of the necessary lesson.

For instance, in a discussion of gender equality / inequality in our country (which is a common topic), imagine the mindset (CTM) that would be triggered in the students if a teacher asked the following question: *Which gender is biologically stronger: male or female?* Then, after the students bantered opinions back and forth, the teacher gave the following response: Females are biologically stronger than males; even though males

have a denser musculature, females, according to nature, are biologically superior because they bear the young and tend to recover from illnesses quicker. Or, imagine during that same discussion that a vocabulary-minded teacher would ask this question: *What do you call ladies who fly airplanes?* Then, after students had finished offering their best guesses, the teacher would give the following answer: A female pilot is called an *aviatrix*. The prefix **avi** means bird, and the suffix **trix** means female. Thus, a woman pilot is actually thought of as a female bird or aviatrix. Do you think the students would ever forget either question or either answer?

During this lesson presentation, any **physical gesticulations** (such as hand movements, facial expressions, etc.), **overt vocal inflections**, or **kinesthetic activity** (such as board work) will be enhancements to the indelibility of the lesson's impression. Remember, once the question is on the table, the CTM exists. So, take full advantage of the opportunity: **teach something essential!** Plan your lessons well so that you can plan your questions well. Every salient point in every lesson *can* have a salient question preceding it. Skilled teachers will make this one of their common practices.

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