



Problem Posing Pro-Forma using photographs. Photo 1.tomato juice

Assumption

A numerical or maths problem has multiple solutions or none, it is framed as an open-ended question. There is no clear path to the answer – students cannot easily use a formula. Within the problem students are often given too much information or not enough

1. Activity Name: How can we measure how much tomato juice has been consumed?(assuming the glass was full to start)
2. Expected duration of activity: 30 mins
3. What EQF level is the activity (approximately)? EQF 1
4. What is the topic? measurement
5. What are the Learning Outcomes? Explore methods to calculate amount of juice left in glass- the actual answer for the example will not be known but estimation and methods that could be used will be explored
6. Prerequisite/prior knowledge assumed? Knowledge of units of measurement, calculating volume possibly
7. In what ways does the problem, or the way the problem is delivered to the students:
 - encourage critical way of investigating and thinking? No answer or guidance is given so students free to explore different methods to work out the process of solving this problem
 - encourage analysis?
 - allow students to be creative? Using a photograph allows student opportunity to explore what methods could be used – the actual glass is not there so there is room for creativity around the exact details – eg could explore impacts, if any, that the straw and cucumber may have on the liquid content)
 - allow independent learning? can be done individually
 - allow for co-operative learning? Working in a group would allow students to share ideas for working out the liquid left in glass
 - allow students time to think? The photograph is a static resource allowing time to think.
 - have a relevant or interesting context? Everyday life related image

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- allow for multiple ways of solving or investigating the challenge?
There could be different ways to work out the amount of liquid left in glass
8. Resources or materials required? photograph
 9. What technology is required in the delivery of the problem? none
 10. What technology might potentially be required in the solving of the problem? none
 11. Suggestions for delivery could use an example glass with liquid so that students can test their methods in real time