

Motivation questionnaire by Siler

Siler, S. A., & VanLehn, K. (2009). Learning, interactional, and motivational outcomes in one-to-one synchronous computer-mediated versus face-to-face tutoring. *International Journal of Artificial Intelligence in Education*, 19(1), 73-102.

16 Items

4 Dimensions

1st component factor

I know I will do well in the tutoring session and on the physics post-test today

I am generally good in physics

I am generally better at solving physics problems than most people I know

I like hard, challenging physics problems

If I find it interesting, I can understand difficult physics concepts

I am usually able to learn difficult physics concepts

2nd component factor

I try (or tried) to do better on physics exams than my friends

I would like to get the highest scores on physics tests

I would like to finish physics problems before other students in my class

I would like being the only one who knew an answer to a physics question

3rd component factor

If the physics topic is interesting, I might investigate it more later

I read to learn about physics topics that interest me

I like to read about physics in my free time

I only read about physics when I have to (e.g. for a class) (-)

4th component factor

I like when physics questions make me think

Even if the physics topic is difficult, if I find it interesting I will try hard to understand it

7-point Likert scale (1 – strongly disagree; 4 – no opinion; to 7 – strongly agree).

Cronbachs α : NA