



Self-Regulated Learning: An Opportunity in Vocational Education

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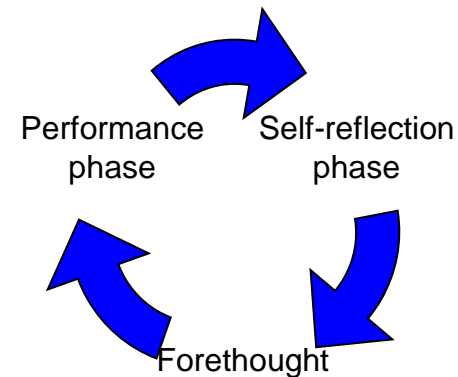
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Self-Regulated Learning

- Active
- Control and direction of cognitive en motivational processes
- Planning, monitoring, and evaluating
- Effective strategy use
- Lifelong learning



(e.g. Zimmerman, 2000)

Research question

What characterises well performing students in vocational education and what kind of learning strategies do they use?

Method

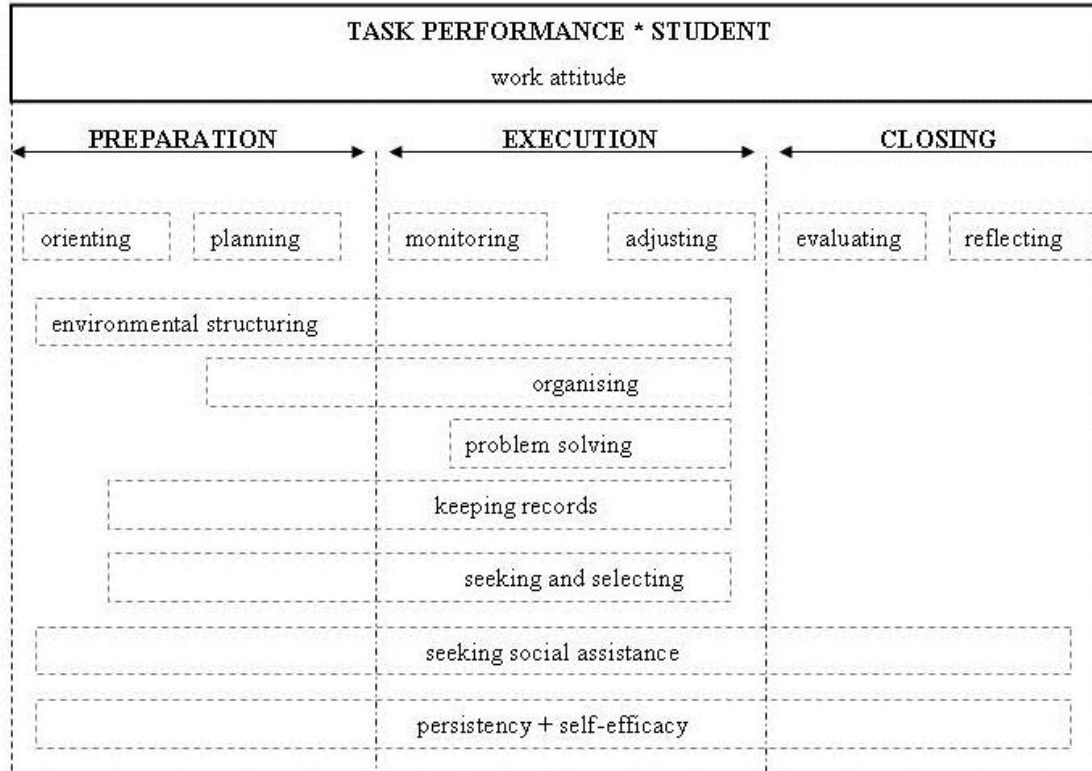
- Selection of students (9 females and 9 males)
- WPS lesson:
 - Observation
 - Interview
 - Interaction
 - Evaluation teacher
- Analyses
 - Interview
 - Interaction

Analysis scheme of SRL learning strategies

Categories	Definitions
Planning	Statements indicating student task-related planning activities, e.g., goal setting, sequencing, and timing.
Monitoring	Statements indicating student-initiated efforts to keep a close eye on their performance and controlling process and progress.
Adjusting	Statements indicating a change in the approach, e.g., correcting a mistake or using different materials.
Evaluating	Statements indicating student-initiated evaluations of the quality of their task performance with regard to the product, e.g., "Then I take a step back and look at my performance."
Reflecting	Statements indicating students' awareness of their process: strength and weaknesses, aspects they have to pay attention to, knowing what is useful, difficult or easy, e.g., "That is one of the most difficult exercises for me."
Environmental structuring	Statements indicating student-initiated efforts to select or arrange the physical setting to make learning easier, e.g., "I choose a quiet place."
Seeking social assistance	Statements indicating student-initiated efforts to seek, give or receive help from a) peers and b) teachers. This category was further divided into social interactions concerning material, content, performance and process matters.

(cf. Zimmerman & Martinez-Pons, 1986)

Results



Professional development + deliberate practice

PLANNING

- GA: 'I had the goal to finish something during the lesson and I managed.'
- RK: 'I checked my watch to see how much time I had left before we had to start cleaning up.'
- CH: 'We discussed the order in which to use the instruments.'
- FH: 'Before I started to cut the vegetables I wondered should I start with that or should I make the mushroom sauce first. Well, yes, that was actually the point in time when it went wrong. I should have started with the mushroom sauce but I decided to cut the vegetables first. I thought that cutting the vegetables would take longer and I forgot about the fact that the mushroom sauce had to be on the stove for 20 minutes...'

ENVIRONMENTAL STRUCTURING

- DS: 'We can choose where to sit ourselves and at first I was sitting next to Rolf, but I got sick to his back teeth. So I decided to move to another table. And now it is fine, every table has its' own people from totally crazy to concentrated.'
- NB: 'It is always important that I am not sitting next to people I am having a too good time with, because I am very quickly sociable and easily distracted. Thus, I usually try to find a quite place.'

MONITORING and ADJUSTING

- IV: 'Mostly, I check to verify if I have used the good codes and if I have used the line accurately. Because sometimes I am wrong. Some time ago, I wrote down 21 although it should have been 22, so I check the drawing to see if it is correct what I am doing.'
- RD: 'I checked the different switches first to see if one is broken, because if you start without controlling it, you will have a problem later on when you have programmed everything.'
- RK: 'When I realise that a curling pin is too loose from the skin, then I roll it out and then I roll it in again but then tighter so that it is better fixated.'

SEEKING SOCIAL ASSISTANCE

- KT: 'I consult someone who knows a lot, not someone who knows very little.'
- NZ: 'I had a hunch but I was not completely sure if there were more possibilities.'
- DS: 'Yes, that was with the cutting machine. I did not see the zero and I adjusted the machine incorrectly. I thought that cannot be correct and so I decided to ask the teacher.'

EVALUATING and REFLECTING

- BB: 'The electrical circuit was working correctly.'
- NZ: 'The motor ran better.'
- GA: 'The corners were at the right angles.'

- CH. 'Everything went well and I did not experience any problems.'

- KT: 'The teacher finds it good.'

Conclusions

Preparation:

- Planning with regard to time and resources, **but** no elaborated plan including goals, sequences, and timing
- Active in selecting an ideal workplace

Execution:

- Monitoring & adjusting was regularly executed by keeping a close eye on the product
- Comfortable and proactive help seeking behaviour

Closing:

- Evaluation is based on the product, their working process was less often taken into account
- Reflected on aspects they wanted to improve



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