

# Procedural advice on self-assessment and task selection in learner-controlled education

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**Procedural Advice on Self-Assessment and Task Selection in  
Learner-Controlled Education**

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### **Abstract**

Learner-controlled education gives learners control over their learning pathways. They assess their own performance and select a task out of a large set of learning tasks, accommodating their own learning needs. However, novice learners often do not possess the self-assessment and task-selection skills necessary for determining an appropriate path. Especially if they are novices in the learning domain too, it is even harder to set an appropriate path. They will be overloaded by both the unfamiliar learning environment and the unfamiliar domain. Moreover, they will not know what performance standards are relevant for performance assessment, and what task characteristics to take into account for task selection. Consequently, they probably will neither gain a great deal of knowledge nor improve domain-specific skills.

This study tested whether a procedural advisory model providing self-assessment and task-selection advice, helps learners in learner-controlled education to determine an appropriate learning pathway. The self-assessment advice provides a scoring rubric for assessing performance. The task-selection advice provides a rule which is based on the learner's self-assessment and mental effort and the task aspects of the prior task. These learners will be better able to determine their own learning pathway, in turn enhancing learning performance. The model is expected to benefit the learners' development of self-assessment and task-selection skills, and, consequently, positively affect acquisition of the learners' domain-specific skills. The preliminary results are in line with these expectations.

*Keywords: learner control, self-assessment, task-selection, advice*

### **Extended Summary**

Learner-controlled education lets individual learners select their own tasks (Hannafin, 1984; Van Merriënboer, et al., 2006). Learners determine their own learning pathway and can adapt it to their own learning needs. Theoretically they could benefit from this control by selecting tasks with optimal levels of difficulty and support and should be more motivated (Kinzie & Sullivan, 1989; Schnackenberg & Sullivan, 2000). Another benefit is that it may help develop self-regulated learning skills (Corbalan, Kester, & Van Merriënboer, 2006) because learners must assess their own performance and select suitable next tasks.

Paradoxically, the self-regulated learning skills that can be developed through learner control are the same as those necessary for learner control (Van Merriënboer et al., 2006). Novices may not possess these skills: they are unfamiliar with performance assessment standards and do not know which task aspects (e.g., difficulty, support level) are important for selecting further tasks. The usual large number of tasks in learner-controlled education to select a task out of, probably does not make things easier. Learners not knowing which task aspects are important to take into account for task selection can get overloaded by this large number of tasks, in addition, this may lead to inappropriate task selection. Moreover, learners without the self-regulating learning skills might get overloaded by the amount of control not knowing how to deal with it. Hence, without self-regulated learning skills learners cannot handle learner control and, in turn, cannot develop these skills.

Additionally, without self-regulated learning skills learner-control can result in inappropriate determination of learning pathways and, therefore, degrade the learning of domain-specific skills (Corbalan, Kester, & Merriënboer, 2008; Kinzie & Sullivan, 1989).

We provide a *procedural advisory model* to tackle these shortcomings. First, the model advises learners on self-assessment by providing a scoring rubric with relevant performance standards and a rating scale to inform them which standards they are for good performance to take into account to assess their performance on and in which manner they should assess their performance. Second, it provides advice on task selection by providing task-relevant characteristics for task selection (i.e., difficulty level, support level of the previous task) and straightforward advice on what level of difficulty and support is best to select for the next task. Because the learners' self-assessment and mental effort (the mental capacity needed to perform the task) turn out to be good measures to make a good task selection, the advice is based on both these measures (Van Merriënboer et al., 2006). The advice on task selection might decrease the overwhelming effect of the large task database for novices. They will take the appropriate task characteristics into account and therefore the advice will enable them to deal with the large task database.

It is expected that the ability to self-assess is prerequisite for proper task selection. Learners receiving advice on both self-assessment and task selection should exhibit the highest self-regulated learning-skills development. Additionally, because procedural advice helps learners determine an appropriate learning pathway, they are expected to better select tasks to acquire domain-specific skills.

### **Theoretical and Educational Relevance**

The procedural advisory model is promising. Many educational approaches propagate giving learners control over their own learning pathway, but this may hamper learning if suboptimal instructional choices are made. Procedural advice could help learners assess their own performance and select tasks effectively, that is, better determine an appropriate learning pathway. This might, in turn, foster domain-specific skills development.

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