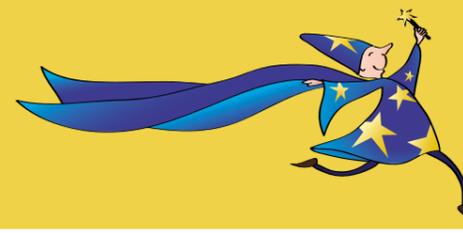


Putting students on the path to learning

The Case For Fully Guided Instruction



What is the impact of instructional guidance during teaching?

What works best, minimally or fully guided instruction?

What we know

Learners must construct a mental representation or schema irrespective of whether they are given complete or partial information. Complete information will result in a more accurate representation that is also more easily acquired.

Working memory has two well-known characteristics: when processing novel information, it is very limited in duration and in capacity. The limitations of working memory only apply to new, yet to be learned information that has not been stored in long term memory. These limitations disappear when dealing with previously learned information stored in long-term memory.

The aim of all instruction is to alter long term memory. If nothing has changed in long term memory, nothing has been learned.

CONSTRUCTIVIST VIEW OF LEARNING

A basic premise in constructivism is that meaningful learning occurs when the learner strives to make sense of the presented material by selecting relevant incoming information, organising it into a coherent structure, and integrating it with other organised knowledge.



UNGUIDED INSTRUCTION

Novices and experts learn best when provided with instruction that contains unguided or partly guided segments. Learners must discover or construct some or all essential information for themselves.

A shift to learning a discipline by experiencing the processes and procedures of the discipline.

The constructivist teaching fallacy: Educators seem to confuse the teaching of a discipline as inquiry with the teaching of the discipline by inquiry. It equates active learning with active teaching. Yet, a variety of instructional methods can lead to constructivist learning.

Minimally guided instruction appears to proceed with no reference to the characteristics of working memory, long-term memory, or the intricate relations between them.

Problemsolving and inquiry-based learning place a huge burden on working memory.

The failure to provide strong learning support for less experienced or less able students could actually produce a measurable loss of learning. Can increase the achievement gap

OTHERS



FULL EXPLICIT INSTRUCTIONAL GUIDANCE

Teachers fully explain the concepts and skills the students require to learn, including what to do and how to do it. Accompanied by practice and feedback.

Teaching a discipline as a body of knowledge.

The challenge of teaching by guided discovery is to know how much and what kind of guidance to provide and to know to specify the desired outcome of learning. Some appropriate amount of guidance is required to help students mentally construct the desired learning outcome.

Conclusion

Constructivist view of learning may be best supported by: methods of instruction that involve cognitive activity rather than behavioral activity, instructional guidance rather than pure discovery, curricular focus rather than unstructured exploration.

Students need enough freedom to become active in the process of sensemaking, and students need enough guidance so that their cognitive activity results in the construction of useful knowledge.

The best course for constructivists-oriented educators is to focus on techniques that guide students 'cognitive processing during learning and that focus on clearly specified educational goals.