

Situated Cognition Theory Summary

1. According to Ausubel, the basic assumption is that knowledge is an internal representation of some kind of external reality. Information is out there, to be received and stored by human processing system, whether as memory networks, cognitive structures, or schemata. In contrast, fundamental to situated cognition theory is the assumption that learning involves social participation, such that cognition takes place within the world and not in minds constructed as somehow separate from or outside the world.
2. The role of context in situated cognition is **everything!** Knowledge is gained through the lived practices of people in a society of authentic contexts. The types of contexts that may influence learning are social, physical, interpersonal, community, and individual context.
3. Legitimate peripheral participation is the process by which a newcomer (or novice) to a community of practice becomes a full participant. It includes the organization and control over resources of a social culture (legitimate); the level of involvement in the culture (peripheral); and the identity and changing forms of participation within the culture (participation). The concept of a learning trajectory in a culture of knowledge includes peripheral participant (not fully engaged), inbound participant (heading toward full participation), insider (continued learning), boundary (participate in related communities of practice), and outbound (process of leaving a community).
4. Cognition from a situated perspective is a matter of sign activity or semiosis (the continuously dynamic and productive activity of signs). Semiotic theory is the knowledge of the world is mediated through signs, which are jointly determined by the physical world and cognizing organism. A sign represents an object by virtue of the fact that it produced an interpretation (the common understanding of what the sign represents an object/idea/concept). As people interact with each other and things in their material world (context), they create systems of signs (e.g., language and mathematics) to help them represent knowledge and their understanding of the world. In fundamental constitution of signs/sign activity, for a critical realism (both in cognition and study of cognition) signs and interpretations are not just relative in nature, they relate in meaningful ways to ultimate causes.
5. Some of the common applications of the situated cognition approach are:
 - ~ Cognitive Apprenticeships: The learner becomes engaged in the culture surrounding the use of that knowledge. The goal is applying knowledge obtained beyond the learning situation. Student teaching is an example of an apprenticeship.
 - ~ Anchored Instruction: The learner solves problems in simulations of authentic contexts, such as videos that provide a situated context for solving complex and realistic problems. (First introduced by the Cognition and Technology Group of Vanderbilt – CTGV.) Use of background knowledge is essential.
 - ~ Learning Communities: The teachers and students collaborate together with a common goal. All contribute and all are held accountable. Learning communities focus on the idea that students come with different ideas and experiences, and will be given the opportunity to learn new things. Working with a collaborative group on problems that relate to the course goal is an example of learning communities.
6. It is in assessment that the learning process, which is emphasized by situated theory conflicts with the products of learning; situated theorists are interested in the learning process, while educators are interested in end result/product of learning. Assessment requires that the way in which we characterize the person's performance captures the various kinds of situation types in which the person's reading or mathematical activity is significant. It may be possible for paper-and-pencil tests to do this, but other forms of assessment are proclaimed as more appropriate ways to measure situated learning. A three point model for assessing situated learning, which measures 1) diagnosis 2) summary statistics 3) portfolios.
7. Strengths of situated cognition are its focus on the outcomes of the learner and methods that engage them. It is declarative and procedural knowledge in one. It focuses on the end result which is that students actually apply their knowledge. They focus on authentic tasks and so gain the tools to be better problem solvers. It starts with activities that are familiar to the student which validates their implicit knowledge, and allow for schema learning when they make connections with the new material and that they already know. This makes learning meaningful. Making the learning meaningful helps the student engage so they learn more and retain the information longer. This make it easier to incorporate new information, otherwise it would merely be rote memorization. It is not based on formal evaluations, allowing for multiple "right" approaches and utilizes a wide use of pedagogical structures that helps the students make connections between concepts they learn. It encourages learning communities where everyone contributes and is accountable. Here they learn and benefit from the strengths of each other.
8. Weaknesses of situated cognition are the impracticality of implementing it. Arranging everything to be taught in its authentic environment is impractical. Since formal tests are used less, assessment is much more complicated. Situated cognition feels that learning is never finished, so that time for assessment is vague. Cognitive apprenticeships lack a reflective process but demand a constant assessment by the teacher. This requires teachers to have a lot of skill and a great deal of time. Cognitive apprenticeships require that participants start with a minimum of skills. Apprenticeships also could be criticized as still not being real life and may only teach the learned shortcut to a process (fossilization) as opposed to learning a process correctly and in its entirety. In community environments the most vocal person dominates the conversation. That, in turn, can also lead to freeloading if accountability is not incorporated.