

# How Self-Determination Theory and Situative Learning are concomitant theories

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## 1 Introduction

The problem I will address in this article is the lack of a specific motivation theory for project based learning and the minor number of academic works linking self-determination theory(SDT) to educational settings.

I will approach the problem by demonstrating the foundations used by SDT and I will show how the situative learning(SL) approach relates satisfactory to these foundations.

Summarizing, I intend to contribute the following in this article:

- I will describe both SDT and SL in a concise and straightforward manner, drawing parallels between the two models.
- I will describe how SL is a model that fosters the principles of SDT.

## 2 Theory review

### 2.1 Self-Determination Theory(SDT)

SDT is one of the most well grounded [Ryan and Deci \[2002\]](#) and broad theory amongst the current theories of motivation. For SDT, the degree in which people are able to fulfill their base psychological needs affects the pursue and attainment of their goals critically. These needs play a vital part in SDT.

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Specifically, in SDT, three psychological needs—for competence, relatedness, and autonomy—are considered essential for understanding the what (i.e., content) and why (i.e., process) of goal pursuits. [Ryan and Deci \[2000\]](#)

STD takes the perspective that people will go after purposes and goals that permit the satisfaction of: [Ryan and Deci \[2000\]](#)

- Competence – The need to have an effect and an expertise dealing with your environment.
- Autonomy – The need to feel in control of your own behavior.
- Relatedness – The need to feel connected to your peers, to care and love and be cared and loved.

## 2.2 Situative Learning(SL)

SL is a framework for research on learning sciences that takes not only individuals but on activity systems, where the analysis encompass all the environment where the learning takes place. In that environment there are elements like:

... learners, teachers, curriculum materials, software tools, and the physical environment. [Greeno \[2006\]](#)

Because SL is a very abstract theory, implementations of it in more specific and concrete situations gives rise to variations such as Constructionism:

Papert’s constructionism views learning as building relationships between old and new knowledge in interactions with others, while creating artifacts of social relevance. ... constructionism focuses on the connected nature of knowledge with its personal and social dimensions. [Kafai \[2006\]](#)

And Project-Based Learning(PBL):

Project-based learning allows students to learn by doing and applying ideas. Students engage in real-world activities that are similar to the activities that adult professionals engage in.

Project-based learning is a form of situated learning [Greeno \[2006\]](#) and it is based on the constructivist finding that students gain a deeper understanding of material when they actively construct their understand by working with and using ideas. [Krajcik and Blumenfeld \[2006\]](#)

### 3 How does SL and SDT fit together?

I plan to describe in both variations of SL, constructionism and project-based learning, the points where it is clear that they intercalate with SDT.

#### 3.1 Project-Based Learning

I will divide the comparison following along the five key features of PBL: driving questions, situated inquiry, collaboration learning technologies, and artifacts. [Krajcik and Blumenfeld \[2006\]](#)

##### 3.1.1 Driving Questions

The main characteristic of PBL is the driving question that guides the process of teaching. The driving question should connect with students, allowing them to find meaning and purpose in answering it.

When the question chosen is of good quality, it is profoundly connected to all three pillars of SDT. That connection stems from the characteristics of a good driving question (note the emphasized words, they are the indication of the connection with SDT): [Krajcik and Blumenfeld \[2006\]](#)

1. feasibility – Students can *design* and *perform* investigations to answer the question.
2. worthwhile – The question contains *rich content* that relates to the *students communities* and to what professionals really do.
3. contextualized – They are *real world, nontrivial, and important*.
4. meaningful – They are *interesting and exciting* to learners.
5. ethical – They do *no harm to individuals, organism or the environment*.

If a task is feasible, worthwhile, contextualized, and meaningful it promotes competence by allowing the students to be effective in a significant way. The ethical and contextualized aspect of the question links with relatedness as the learner affects its community in a positive fashion, driving self-respect and pride. Because the question is selected in a cooperative manner [Krajcik and Blumenfeld \[2006\]](#) way it attaches to autonomy.

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