

# INL1 - DVA463

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## 1 Scenario 1

We assume that an improvement of the quality is possible and relevant, meaning that there are improvement opportunities. Furthermore, the manager is interested in knowing exactly how much the quality improves, not just that it does. This means that the manager have a few parameters specified for measuring this. Because of this we propose an **experimental** approach to this scenario, since the improvements can be measured. With these assumptions we express the following exploratory questions as:

1. Is TDD a method that developers do?
2. How is the quality measured?
3. What is the difference between the methods?

This leads to a final research question, such as:

*If and how much will "test-driven development" (TDD) improve the quality of the software over "test last development" (TLD)?*

## 2 Scenario 2

Since the experiments from scenario 1 shows an improvement of the quality, the manager wants to know how the developers feel about the new way of working. With a **survey** we can investigate the opinions of the developers on both TDD and TLD. This is good since we assume the developers are already familiar with TLD, and can therefor use it as a reference when reviewing TDD. With these assumptions we express the following research question:

*What are the developers opinions on TDD over TLD?*

### 3 Scenario 3

We assume that the current development process differs from the corporate guidelines, because if they did we could just examine the guidelines. The manager wants to find how the current development process can be improved by identifying challenges and improvement potentials. This is done by doing a **case study** on this specific company's development process. A case study is appropriate since we want to find ways to improve the process and provide substantial answers on how to do that. With these assumptions we express the following exploratory questions as:

1. How does the current developing process look like?
2. How can the performance of the process be measured?
3. Can the process be more efficient?

This leads to a final research question, such as:

*What are the main challenges and improvement potentials of the actual development process?*