**Possible errors:**

**1. fatal errors**:

- 404/500/502/503

- loading blank page

- loading wrong results / package from other user (switched due to ip hopping)

- lost connection

**2. design errors**:

- wrong format (size)

- positioning (displacement)

**3. runtime errors**:

-extra long loading screen

**4. execution errors**:

- having to click on a button multiple times

- pressing one button, but it uses others as input

- reloading same question page

- showing all wrong answers for a question

**5. content errors**:

- trick/unclear questions

- misspelling / text in weird symbols

- redundance in answers (multiple same answers)

- giving away the answer in the question

**Abstract**

This paper outlines the effect of technical problems on the academic performance of student in an online eLearning test environment situated in Germany.

**Introduction**

“extraction form the presentation”

Let’s talk about Kevin. Kevin is a student by the age of 11 and is in the 5 grade of

To what extend do technical issues effect eLearning-Tests?

Currently it is unknown is technical difficulties have any influence on the performance of students if they purely rely on an eLearning-environment.  
Furthermore I am unaware of any study that deals with a similar research question.

This paper addresses the question and provides a reasonable answer.

**Method**

The thesis discusses to what extend does technical difficulties influence the academic performance of students in an eLearning environment situated in Germany. An answer to this question allows shifting of resources in the development on said environments. This can be used to improve quality of the software and improve the learning experience of the students.

Participants

In total 200 individuals of the 5 Grade of secondary school where selected. The group is comprised of 100 girls and 100 boys. The significant variable is the age which should be equal or close +/- 1 year overall participants.

No further variables are constrained. This was done to reduce the complexity of the evaluation and reduce cost. This proceeding reduces repeatability of the thesis(paper), however it is also a more likely scenario to encounter in praxis.

This group is split in 2 Groups, the control group (CG) 50 girls and 50 boys and the experimental group (EG)  
Participants for these groups are selected randomly.

**Tools and Materials**

For the test itself multiple computers are needed and the provided software. (how to add this?)  
Then for each participant an account has to be created. The settings for errors has to be either true or false corresponding to the belonging group of the participant. The computer should have no internet access or other tools that might help solve the questions in the test.

**The proceedings**

Greet the participants and split in the prearranged groups.

Bring each groups to the designated testing rooms – milk and cookies ?

Each student will login in with the given account and answer the given questions by the computer.

Thank the participants for their time and reward them with more cookies.

**The Results**

The data has been tracked and recorded by the computer and stored in the central database.

(Dsiplay the data in the MongoDB format: bson to Json.pretty() ? )

Games study latenzy, for research , make a streach – 8. July abgabe 3 wochen zeit.

Footnote to github link of code.

1. July presentation 15 min - 5 min questions

Story as start of presentation ?

Connect previous metioned stuff as reminder to improve presentation

Story: Start with Kai - …..

End presentation: And to come back to kai ….