

What to do in Tanzania during November?

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Swimming under a waterfall



Introduction

Jeliot at Different Stages

Jeliot 3 and Students Performance

Tanzanian's take on Jeliot 3

Fight!

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Introduction

Motivation

Scenario 1

Scenario 2

Jeliot at Different Stages

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Tanzanian's take on Jeliot 3

Fight!

To get feedback whether the following proposals will help me to meet the following goals:

1. Get data to write Journal papers on Jeliot 3.
2. Improve Jeliot 3 according to the collected data.

And how to better design the study.

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Tanzanian's take on Jeliot 3

Fight!

2nd Year Bachelor of Education Students

- About 140 students divided in 2 groups
- 2 weekly 90 min-lessons
- Students have been primary school math teachers
- Just got to teach arrays after 6 weeks
- Classroom with about 34 Win-computers

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Fight!

1st Year Bachelor of IT Students

- About 26 students
- 2 weekly 90 min-lessons
- Going into comparison operators and conditions
- Classroom with 10 Win-computers

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Jeliot at Different Stages

Research Questions

Experiment Setting

Open Questions

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Fight!

Jeliot at Different Stages

Research Questions

- How Jeliot is used as student's knowledge progresses?
- How deep is the visualization comprehension as student's knowledge progresses?

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- Group of 10 students from a pool volunteer students.
- Students are solving a task at a level of their knowledge.
- Pretest and Post-test on knowledge Simple quizzes
- Jeliot usage/students issues/ are annotated by researcher.
- Student is asked to think aloud, which is recorded.
- 4 30 min sessions consisting of:
 - Student's knowledge assesment on topic
 - 20 min problem solving using Jeliot 3
 - 5 min describing Jeliot animation of solution, with probes from researcher.

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Group Selection?

- Random selection
- According to knowledge, i.e. 3 bottom students 4 normal 3 top students
- Other criteria

Individual sessions vs Group sessions(no think aloud, but screen recording)

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- How Jeliot 3 perception, usage, and understanding relates to the grades attained in a programming course?
- ...

Experiment Setting

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Final Survey to students and course grades.
Quantitative data.

Open Questions

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- What goes first, deep understanding of Jeliot 3, or of Java concepts? Is it simultaneous?
- Related to the first proposal but surveying more students.

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Tanzanian's take on Jeliot 3

Research Questions

- How will Tanzanian students desing a program visualization tool after having used Jeliot 3?

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Focus group of volunteers exploring different approaches to Program Visualization tools at the end of the course.:

- How will they explain programming concepts?
- Which kind of tools would they use if any?
- What they will like to visualize?
- How will they modify Jeliot 3?

Open Questions

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- Cultural issues to consider?
- likely to give useful data?

Go, criticize!!!

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Your Turn