

RESULTS

MOBILE EDUCATION QUIZ



TEAMS

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TEAM PSP5



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PURPOSE

CONTEXT

- ❑ SDG Challenge
- ❑ EPIC
- ❑ Work with the waste pickers
- ❑ Bring education to them
- ❑ Mobile Education App in development
- ❑ New feature

THE CHALLENGE

Develop an efficient assessment methodology (quiz) that measures the user's level of learning.

PLANNING THE PRODUCT

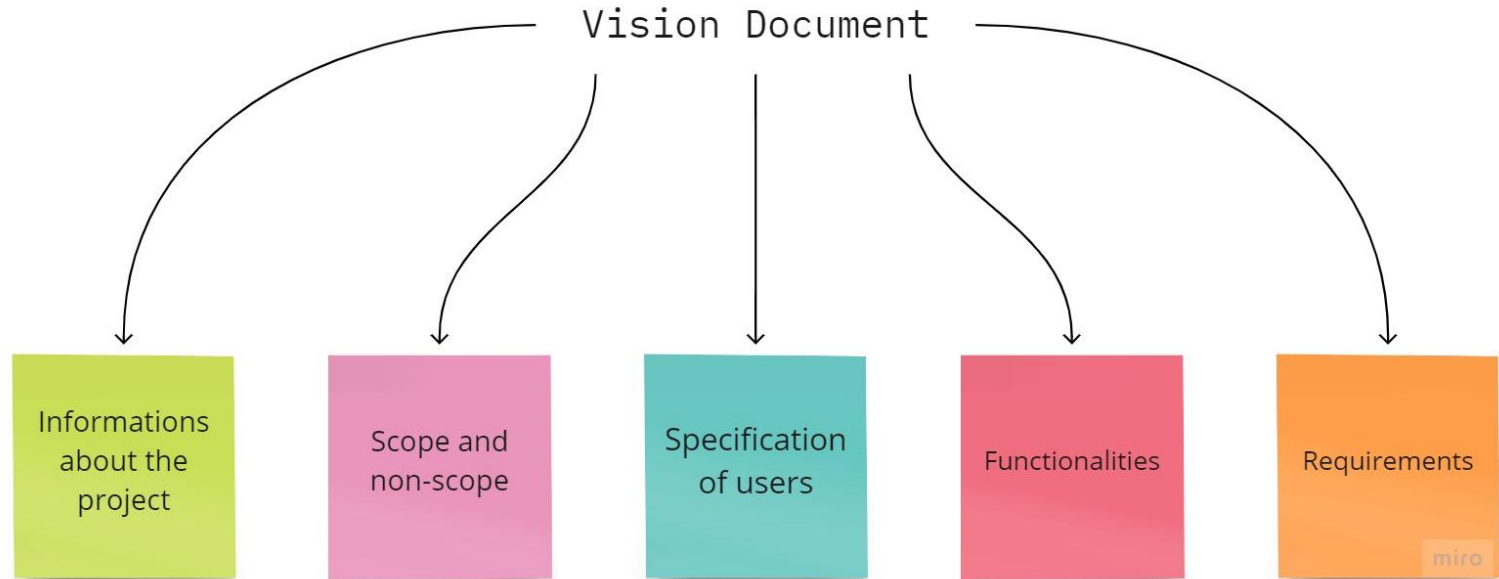
DEVELOPMENT PROCESS

In order to develop a complete product with a high quality level, three documents were produced:



VISION DOCUMENT

The vision document presents general information about the project, containing the scope and non-scope, specification of users, functionalities and requirements that our project must encompass





MOCKUPS

The mockup is based on demonstrating a suggestion of a visual model to apply the selected methodology. Based on other analyzed models and on the literature that we found, the simplest and most accurate layout was chosen, so that it demonstrates seriousness in the evaluation of the course and objectivity.



MOCKUPS - Login Page



MOCKUPS - Courses Page



MOCKUPS - Avaliação Page (Reproved)



MOCKUPS - Avaliação Page (Approved)



RESEARCH AND DEVELOPMENT

REFERENCES

- *Tapping into Bloom Taxonomy's Higher-Order Cognitive Processes: The Case for Multiple Choice Questions as a Valid Assessment Tool in the ESP Classroom*

This study was designed to find out if a MCQ quiz is a valid tool for assessing higher-order thinking skills (applying, analyzing, evaluating and creating).

- *Cumulative versus end-of-course assessment: effects on self-study time and test performance*

In this study, an alternative is shown on how the distribution of questionnaires should be carried out throughout the semester of the course.

- *The Effects of Different Feedback Strategies Using Computer-Administered Multiple-Choice Questions as Instruction*

In this study, is shown what is the best way to provide feedback to students.

TYPE OF QUESTIONS

Multiple choice questions

What would be the best method of distributing the Multiple Choice questions?

- A multiple-choice question quiz was conducted for 35 Omani university students from the Engineering and Science course
- The quiz taken by the students in this research contained a bank of 21 questions that reflected on all categories of levels in Bloom's taxonomy except for creating.
- Multiple choice questions is a valid type of evaluation that manages to explore the cognitive processes of different levels of Bloom's taxonomy (except creating)

COMPARISON - WHEN TO ASSESS THE QUIZZ

How should quizzes be distributed.

In the end of the semester

- Students tend to postpone their studies, prioritizing other activities

By modules



- Repetition of content and test spacing

COMPARISON - TYPE OF FEEDBACKS

What is the best way to provide feedback to students?

Knowledge of correct response

- Informs the user of the correct alternative after each answer. Specifically, when the user hits the alternative, "CORRECT" appears in the lower corner of the screen, if the user gets it wrong, the word "WRONG" appears, indicating with an arrow which alternative is correct.

AUC - Answer until correct



- When he makes a mistake, the command "NO. TRY AGAIN" appears at the bottom of the screen. Then, when the user makes a second attempt, if he gets it right, "CORRECT" appears and if he chooses the incorrect answer again, "WRONG" appears together with the instruction to type the letter of the correct alternative.

FINAL RESULTS

RESULTS PRESENTED

The teams were able to deliver the following results:

- Evaluation methodology
- Vision Document
- Use case diagram
- Mockups

→ All results detailed link: [executive report](#)

QUALITY GUARANTEE

QUALITY

To guarantee the quality of the final products, verification checklists were applied.

- Vision document
 - Quality index went from 59% to 94%
- Use case diagram
 - Quality index went from 70% to 90%
- Mockups
 - Quality index went from 65% to 100%

QUALITY DASHBOARDS - VISION DOC.

Dashboard de Resultados

Número Total de Itens:

42

Número de Itens com Erros:

3

Número Total de Erros:

3

Número de Inadequações Graves:

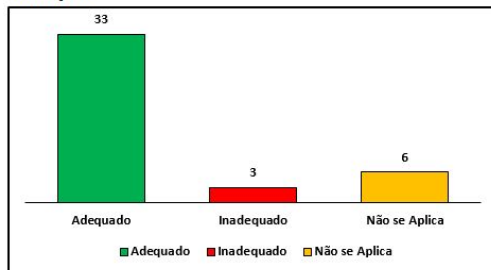
2

Índice de Acertos:

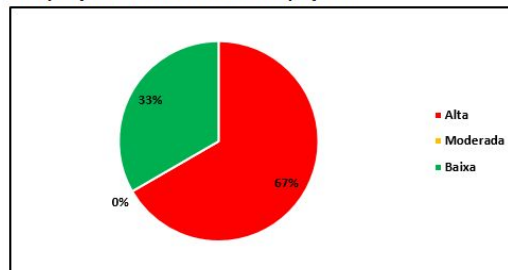
94%

0% - 50% : Inaceitável
50% - 70%: Regular
70% - 90%: Bom
90% - 100%: Desejável

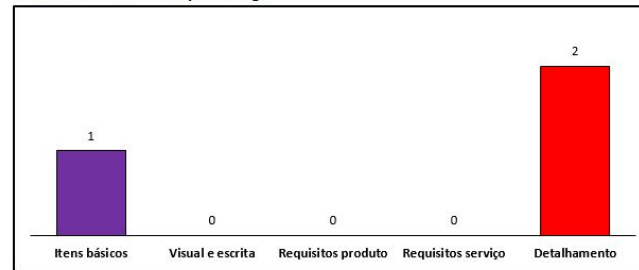
Avaliação:



Composição da Gravidade das Inadequações:



Quantidade de Erros por Categoria



QUALITY DASHBOARDS - USER CASE DIAG.

Dashboard de Resultados

Número Total de Itens:

23

Número de Itens com Erros:

3

Número Total de Erros:

8

Número de Inadequações Graves:

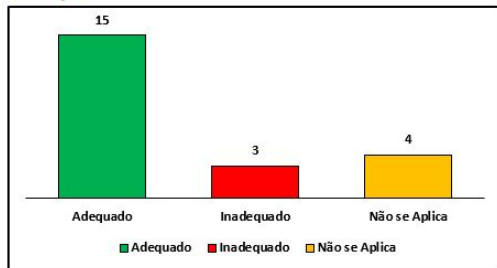
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Índice de Qualidade:

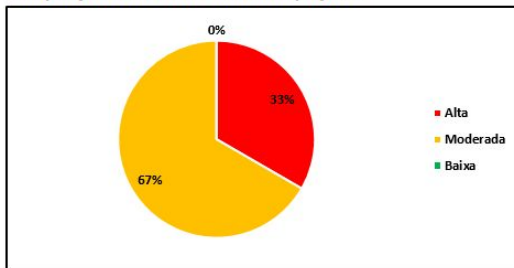
90%

0% - 50% : Inaceitável
50% - 70%: Regular
70% - 90%: Bom
90% - 100%: Desejável

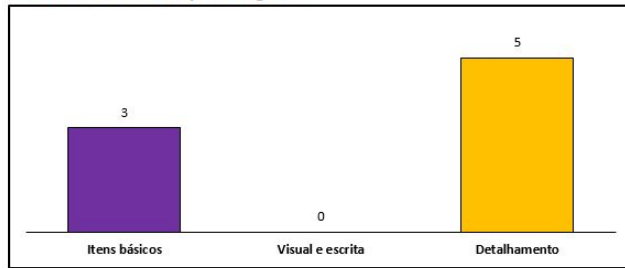
Avaliação:



Composição da Gravidade das Inadequações:

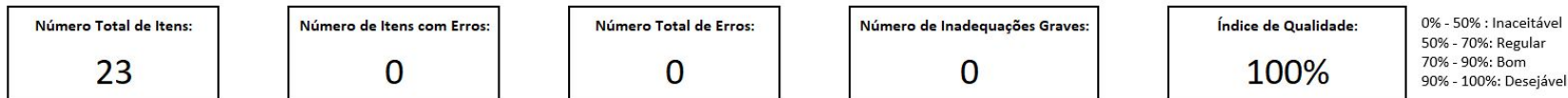


Quantidade de Erros por Categoria

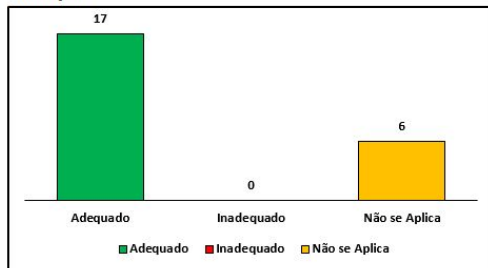


QUALITY DASHBOARDS - MOCKUPS

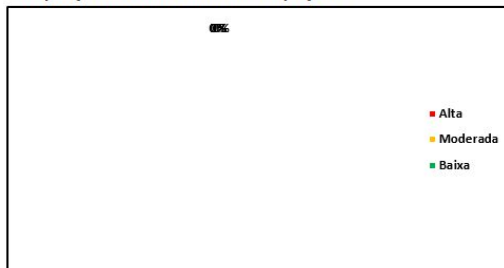
Dashboard de Resultados



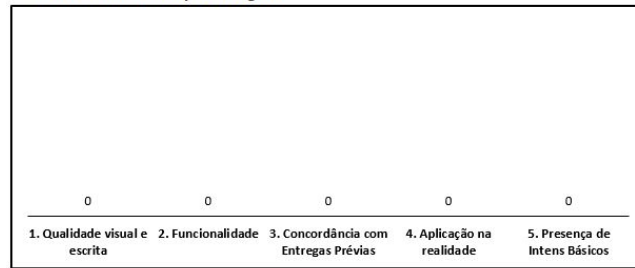
Avaliação:



Composição da Gravidade das Inadequações:



Quantidade de Erros por Categoria



NEXT STEPS FOR THE QUIZ

NEXT STEPS

For the continuity of the project to be assured, it will be necessary to be working on:

- Prototype the mockups created
- Test the quiz feature with users
- Adapt as necessary
- Create a way of communicating more frequently with the users

THANK YOU!