

Peer-Assessment for Holistic Student Development (PAHSD): Implementing a Digital Application on a PBL Platform

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The logo for PALE 2020 is displayed in a stylized, multi-colored font. The word "PALE" is in large, bold, sans-serif letters, with each letter in a different color: P (dark blue), A (yellow), L (green), and E (orange). The word "2020" is in a smaller, dark blue, sans-serif font, positioned to the right of "PALE". A horizontal blue line is drawn below the "PALE" text, and another horizontal blue line is drawn below the "2020" text.

PRODUCTION SYSTEMS DESIGN (PSP)



The PSP disciplines that adopt the PBL methodology, aim to make the student “learn in practice”, applying the theoretical knowledge of Production Engineering in solving real problems. PSPs solve problems related to the technical areas of Statistical Probability, Information System, Production Planning and Control, Quality Management, Product Engineering and Strategic Management. Students work in teams and participate in all stages of the projects, from planning to closure. In addition to promoting the generation of new solutions, PSPs provide a complete project management experience.

360
Accomplished Projects

200
Companies Served

OUR SOLUTIONS
The projects take place every six months, depending on the area of operation of each anchor discipline.

the PUMA Platform

Introduction



UnB adopts the PBL method



PBL is part of the main education
vision at Esprit



Partnership between UnB and Tunisia

Figure 2. The international partnership of PUMA Platform

Research problem

How to use a web platform to automate the peer assessment process and, thus, **improve the application of the PBL** methodology



Objective

This article aims to present the development of PUMA's Peer-Assessment for Holistic Student Development (PAHSD) module, which will be used to store students' performance data and foster their competencies development.

Literature review

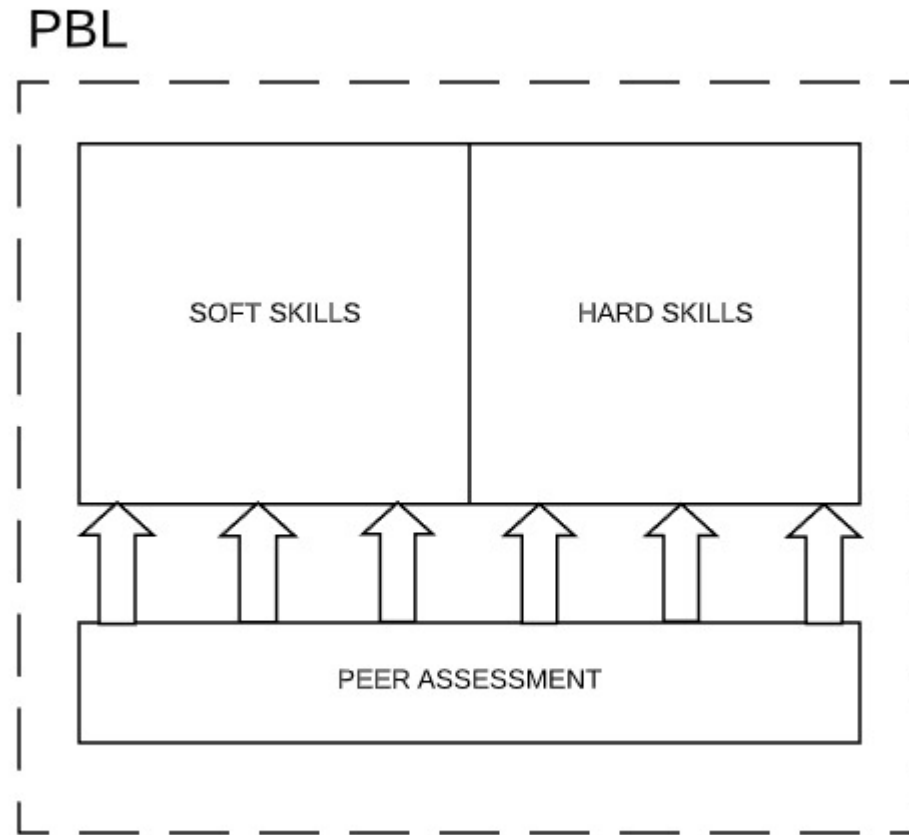


Figure 3. The Peer Assessment process in the PBL methodology

Literature review

EXISTING PEER ASSESSMENT PLATFORMS FOR PBL



✓
Peer
Assessment
Functionalities

✓
Data
processing
and analysis

✗
Solutions
to help
students
improve

No established process
to help the student to
improve his/her skills



PUMA PAHSD MODULE



✓
Peer
Assessment
Functionalities

✓
Data
processing
and analysis

✓
Workshops,
Content and
exercises to
help the
student
improve

Figure 4. The proposal of PUMA's PAHSD

Research methodology

- Case Study
- Qualitative approach

This project had the participation of students and teachers from both universities.

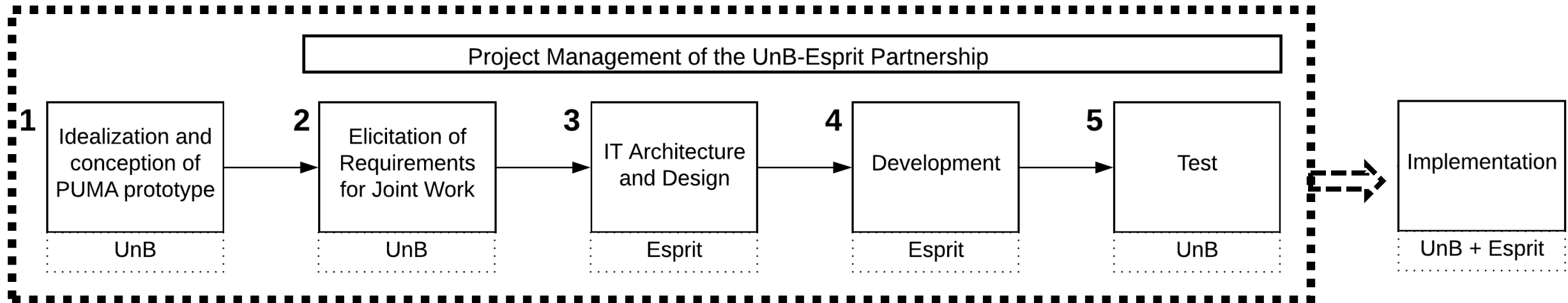


Figure 5. Steps of research

Research methodology

- Agile Methodology
- SCRUM, with **incremental characteristics**

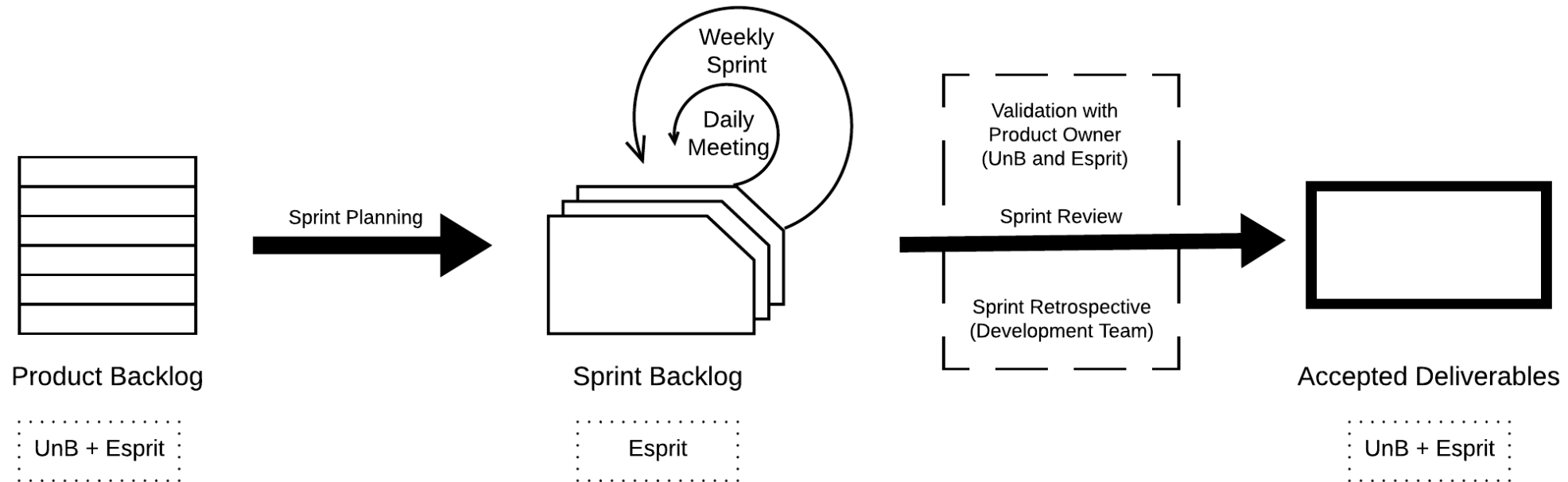
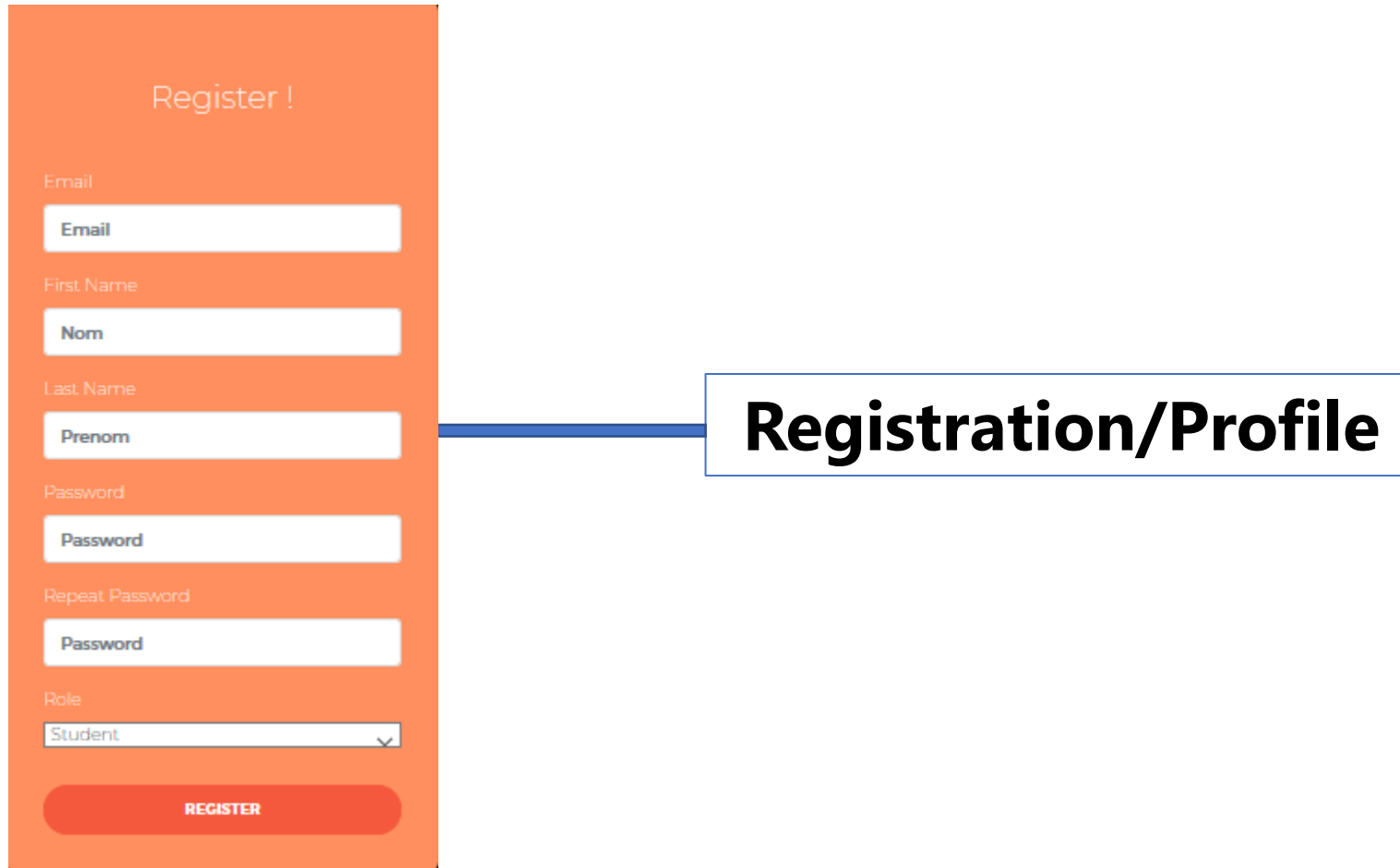


Figure 6. Scrum Methodology applied in the project

PUMA - Peer Assessment Module



The image shows a registration form for the PUMA - Peer Assessment Module. The form is titled "Register !" and is set against an orange background. It contains several input fields: "Email" (with placeholder text "Email"), "First Name" (with placeholder text "Nom"), "Last Name" (with placeholder text "Prenom"), "Password" (with placeholder text "Password"), and "Repeat Password" (with placeholder text "Password"). Below these fields is a dropdown menu for "Role" with "Student" selected. At the bottom of the form is a red "REGISTER" button. A blue line connects the form to a box on the right labeled "Registration/Profile".

Register !

Email
Email

First Name
Nom

Last Name
Prenom

Password
Password

Repeat Password
Password

Role
Student

REGISTER

Registration/Profile

Figure 7. Registration of Users

PUMA - Peer Assessment Module

Add Skills

Add Macro Skill

Name

Description


Hard Skills

Add MicroSkill for This MacroSkill


Figure 8. Macro Skill and Micro Skill

Peer Evaluation Process


Team Members !



Teammate
Boufaied Mohamed
EVALUATION DONE!



Teammate
ben rekaya aziz
EVALUATION DONE!



Teammate
ben zarb adem
EVALUATE!

macro skills	micro skills
Communication	Timeliness of information provided
	<div>No</div>
	Effectiveness of means of communications Used
	<div>No</div>
	Interpersonal communication
	<div>No</div>

Figure 9. Step of Peer Evaluation Process

PUMA - Peer Assessment Module

Comparison of student evaluation per Macro Skill

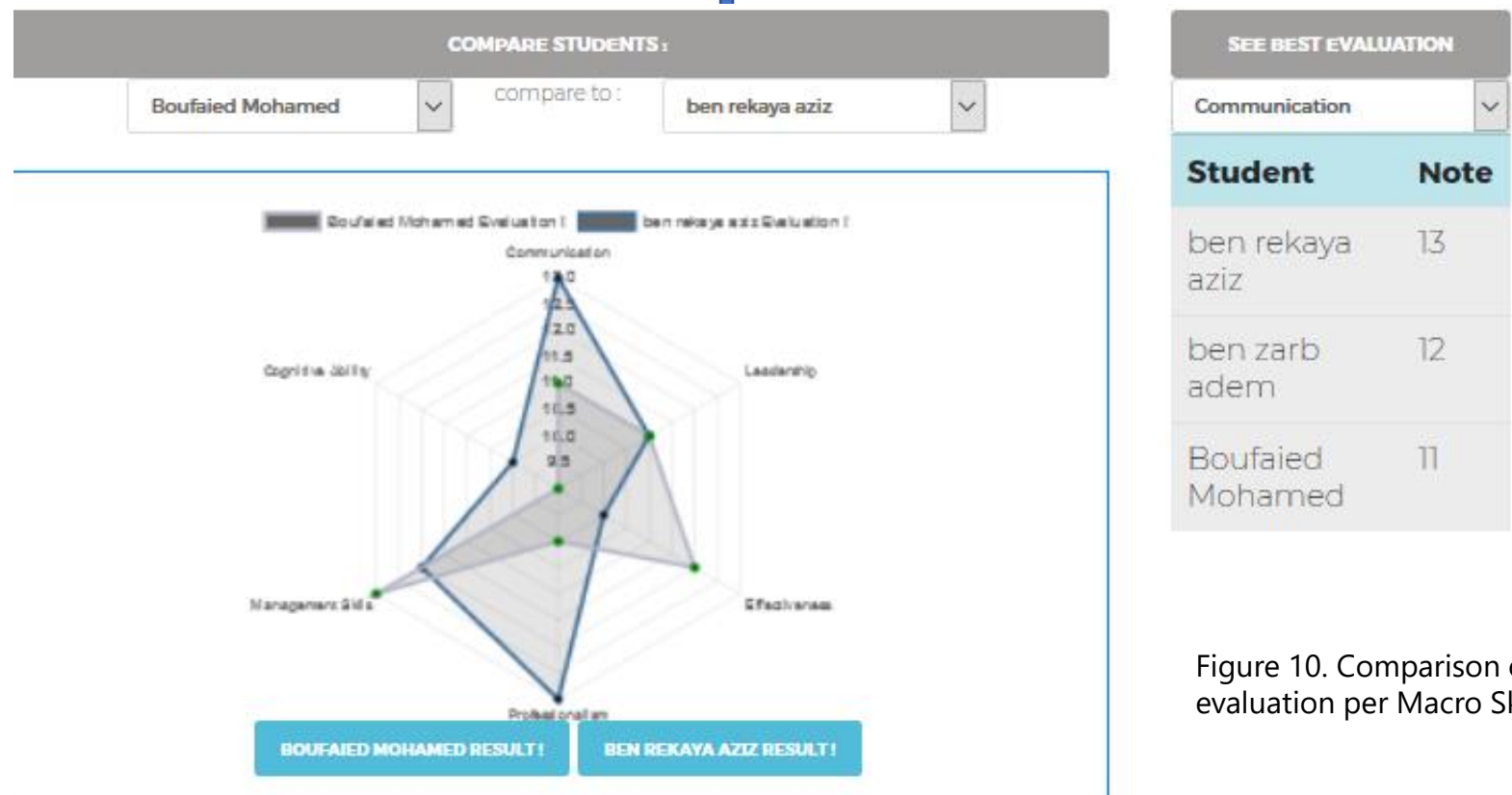


Figure 10. Comparison of student evaluation per Macro Skill

PUMA - Peer Assessment Module

Suggested workshop for Macro Skill to be developed

Add Workshops

Name

Description

start-date

end-date

number of places

ADD



Figure 11. Suggested workshop for Macro Skill to be developed

Conclusion



- ✓ The objective of this research was achieved
- ✓ This study requires future work with an incremental approach
- ✓ The module developed will be carried out in three to five courses in Brazil and Tunisia
- ✓ The joint work between Brazil and Tunisia is the key to transform these latent possibilities into one unified concrete result.

Thank you!

