IDEAL GAME
2020-1-DE01-KA203-005682
O1-A1-Research guideline

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IDEAL-GAME

*Improving didactics, education and learning
in higher education with the Online Serious Game Creator*

O1-A1- Questionnaire and guideline design

Research guideline

University of Paderborn & University of Dundee

Project Title: Improving didactics, education and learning

in higher education with the Online Serious Game Creator

Acronym: IDEAL-GAME

Reference number: **2020-1-DE01-KA203-005682**

Project partners:
P1   University Paderborn (UPB), DE
P2   Ingenious Knowledge GmbH (IK), DE
P3   Universitatea din Pitesti (UPIT), RO
P4   Wyzsza Szkola Ekonomii i Innowacji w Lublinie (WSEI), PL
P5   University of Dundee (UoD), UK
P6   Universidad a Distancia de Madrid SA (UDIMA), ES

1 The structure of research in IO1

This IDEAL GAME research guide provides an overview on the research in IO1 and offers also a format which can be used by the partners to write their reports on IO1 concerning using and learning with serious games in higher education.

The output description for IO1 states the following:

IDEAL GAME focuses on the design of an Online Serious Game Creator and addresses the creation, testing and evaluation of Mini OER Serious Games within learning scenarios. Generally speaking, the approach aims to enhance didactics and learning in higher education with the help of an Online Serious Game Creator. This IDEAL GAME tool will offer the chance to create different types of small serious games which can be integrated into modules and lectures: e.g. (a) serious games for learning professional and subject-related vocabulary, (b) serious games for assessment of corresponding facts and terms, (c) serious games which focus on process flows, (d) competitive serious games to enhance learning as well as (e) Puzzle Games to get in contact with models and theories etc. Moreover, the partners will also collate best practice learning and teaching resources.

The proposed research to be conducted in each partner country will:

(1) gather information on the use of Serious Games in higher education and its pedagogical approaches to date;

(2) collect information on the present status of currently used ways for actively engaging learners in lectures and motivating students;

(3) highlight information on didactic approaches and current use of IT and digital environments in higher education;

(4) identify data on the use of flipped classrooms and the opportunities and challenges concerning the use of mini serious games in lectures and study modules as well as on current experiences and future perspectives in higher education;

(5) collect and present examples of best practice learning and teaching resources.

Responses to all of the above aspects will inform the creation, testing and evaluation of Mini OER Serious Games within learning scenarios that will be used to guide all further development actions. The research results will be the basis for the tool design and the selection of the necessary mini serious games including additional OER worksheets and topics as well as ensuring the fit to the target groups. Using this learning outcomes approach as a key element of the pedagogic strategy it enables individual learning content to be localised to take account of the different cultural patterns in partner countries without compromising the value of the learning resource.

The research guideline is a part of this IO1.

It consists of desktop research and field-based research. As Ingenious Knowledge (IK) is the technical partner in the IDEAL GAME team, IK will have different tasks concerning IO1 than the other partners. The research questions of IK focus on best practices in design aspects, while the other partners do (1) desktop research with computer, computer information from their institution and literature as well as (2) field-based research with a questionnaire.
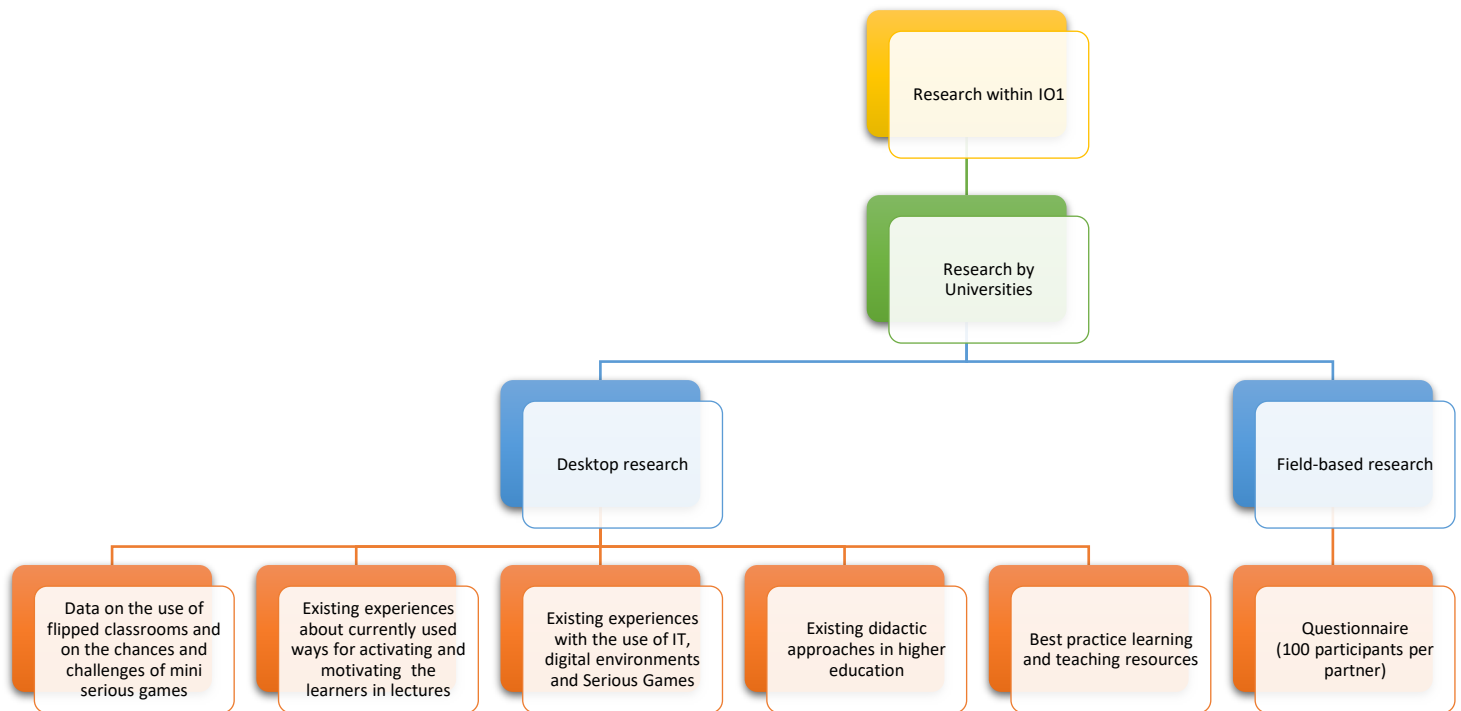
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Figure 1: Overview - research guideline within IO1

2 Research of partner Universities

2.1 Desktop research

For desktop research, the partners will use the template provided together with this research guide. Each partner will produce a report of eight pages which focusses on using and learning with serious games in higher education.

Part 1 will be an introduction to the report.

Part 2 will be a section focusing on the existing experiences with the use of IT, digital environments and the flipped classroom concept and the didactic approaches adopted.

Part 3 will be a section focussing on the current status of approaches used to actively engage learners in lectures and motivate students.

Part 4 will be a section focussing on existing experiences with the use of Serious Games in higher education and the corresponding associated pedagogical approaches.

Part 5 will be a section focussing on opportunities and challenges concerning the use of mini serious games in lectures and study modules in higher education as well as on current experiences and future perspectives.

Part 6 will be a section focussing on best practice learning and teaching resources in each partner's institution. Here learning and teaching materials will be addressed.

Part 7 will be a short conclusion.

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2.2 Field-based research

The field-based research of each partner University consists of a questionnaire survey. Each partner should provide answers from at least 100 participants to ensure each answer stands at least for just 1 per cent and not more.

The target groups of the questionnaire should be students/ learners, teachers/ lecturers and professors of higher education.

The questionnaire must be filled in online. Therefore, it is necessary to translate the questionnaire into the national language of the partner and provide the translated version to the learning organisation of IO1 – University Paderborn. UPB and IK will insert the translations into the online-tool and will provide each partner with the link to the online questionnaire as well as access codes for the users.

The time taken to complete the questionnaire is approximately 10 minutes.

The results will be directly stored and will be used by UPB within the summary research report, which combines these results with the other desktop research and the field-based research results of all partners.

3 Role of IK within IO1

Concerning the field-based research, IK will produce, and provide, each partner with an online questionnaire and online survey tool. In addition to that, UPB and IK will insert the translations into the online-tool and then provide each partner with the link to the online questionnaire as well as access codes for the users.

With regard to Activity 3 of IO1 (Collecting and presenting best practice learning and teaching resources), IK and UPB will work on criteria for a database to enable searching through these best practice learning and teaching resources which then will be made available on the internet. Together with UPB, IK will focus on the structure and the way to present the information to make it easy for teachers to search for such resources.

Moreover, IK will provide a platform for this database which can be opened in a web browser. In summary, IK has to create an approach to structure the resources online.

4 Deadlines concerning the work on IO1

IO1 Start Date: 01-09-2020
IO1 End Date: 28-02-2021

What?	Who?	When?
O1-A1		
1.1) Decision about which lecturer and higher education institutions should be involved in the development and the testing	UPB, UPIT, WSEI, UD, UDIMA	Until 31/12/2020
1.2) Creation of the research guide for field-based and desk-based research and development of the categories based on	UPB, UD	Until 31/12/2020

discussions with the partners and provide it to partners		
1.3) Creation of an Online Questionnaire in English and provide it to partners	UPB, IK	Until 31/12/2020
1.4) Translation of the English Questionnaire into each partner's national language and send it back to UPB and provide it to at least 100 persons	All partners	Until 20/02/2021
1.5) Implementation of the Online Questionnaire into Survey Tool and provide partners access data and codes	UPB	Until 28/02/2021
1.6) Distributing the Online Questionnaire to at least 100 persons (lectures, students, learners etc.)	UPB, UPIT, WSEI, UD, UDIMA	Until 10/03/2021
O1-A2		
2.1) Conducting desk-based research based on the research guide	All partners	Until 25/03/2021
2.2) Collecting and presenting best practice learning and teaching resources (Every University will have a look at existing learning and teaching resources in their institutions and provide best practice bundles)	UPB, UPIT, WSEI, UD, UDIMA	Until 25/03/2021
2.3) Writing of research report – approx. 6-8 pages and send it to UPB	All partners	Until 25/03/2021
O1-A3		
3.1) Collecting all research reports	UPB	Until 28/03/2021
3.2) Analysis of all research results	UPB	Until 15/04/2021
3.4) Writing a summary research report and providing it to partners	UPB	Until 15/04/2021
3.5) Translation of summary research report into national languages and send it back to UPB	UPB, UPIT, WSEI, UD, UDIMA	Until 30/04/2021
3.6) Working on criteria for a database to search through these best practice learning and teaching resources will be made available on the internet	UPB, IK	Until 15/03/2021
3.7) Providing and implementing of a platform which can be opened by web browsers to present the information	IK	Until 31/03/2021