Work Package 5 Report

Guidelines and Data Results

Overview

Work Package 5 (WP5) focused on validating the developed solutions through usability and concept testing, implementing pilot trials across five partner countries, and translating the results into practical guidelines for future adoption and replication. The activities under WP5 ensured that the project outcomes were tested in real-life contexts, analyzed through both quantitative and qualitative methodologies, and synthesized into actionable recommendations. The WP concluded with a final conference to present results and engage relevant stakeholders at the European level.

Objectives

The main objectives of WP5 were to:

1. Conduct usability and concept validation of the developed tools and methodologies.
2. Execute real-life pilot trials in Italy, Finland, Greece, Poland, and Spain.
3. Collect, analyze, and compare trial data across partner countries.
4. Derive best practices and lessons learned from the national pilots.
5. Produce comprehensive guidelines and policy recommendations for future implementation.
6. Disseminate results and ensure knowledge transfer through a final international conference.

Tasks and Activities

A5.1 – Usability & Concept Tests

Initial usability and concept validation sessions were conducted with representative end-users and stakeholders. These sessions focused on assessing interface design, functional features, clarity of content, and overall user experience.

Feedback was collected through structured questionnaires, interviews, and focus groups, leading to refinements of the tools and materials before the full-scale trials began.

Key Results:

- High user satisfaction regarding intuitiveness and clarity.
- Identification of minor interface adjustments and content simplifications.
- Improved alignment of functionalities with end-user needs.

A5.2 – Trial Execution in Italy

The Italian pilot involved two user groups: one for the Serious Game and one for MOOC testing. Activities included training sessions, supervised tool deployment, and continuous feedback collection. Data were analyzed to measure user engagement, usability, and impact indicators.

Key Findings:

- Strong engagement and positive adoption.
- Recommendations for improved localization and contextual examples.

A5.3 – Trial Execution in Finland

The Finnish trial emphasized testing under differing technological and institutional settings. User feedback was collected both during and after the pilot phase. The Finnish pilot test involved two user groups: one for the Serious Game and one for MOOC testing.

Key Findings:

- Robust technical performance under diverse conditions.
- High satisfaction regarding accessibility and content adaptability.

A5.4 – Trial Execution in Greece

The Greek pilot focused on assessing implementation feasibility in environments with mixed digital literacy levels with two user groups: one for the Serious Game and one for MOOC testing. Continuous support was provided to participants.

Key Findings:

- Positive feedback on training materials and support mechanisms.
- Importance of local facilitation for maintaining user engagement.

A5.5 – Trial Execution in Poland

The Polish pilot emphasized scalability and integration within existing institutional frameworks. Data gathered were instrumental in understanding deployment challenges and based on two user groups: one for the Serious Game and one for MOOC testing.

Key Findings:

- Good compatibility with local systems.
- Recommendations for enhanced multilingual support.

A5.6 – Trial Execution in Spain

The Spanish pilot explored user motivation and sustained usage patterns. The implementation involved two user groups: one for the Serious Game and one for MOOC testing.. Special attention was given to feedback loops and participant retention over time.

Key Findings:

- Strong long-term engagement.
- Value of community-based support in sustaining participation.

A5.7 – Guideline Drafting

Based on the cross-country analyses, the consortium developed a set of **Guidelines and Recommendations** summarizing the key insights from all trials. These guidelines include:

- Technical implementation steps
- User engagement strategies
- Policy and institutional recommendations
- Lessons learned and best practices

The guidelines serve as a practical reference for stakeholders interested in replicating or scaling the project's outcomes.

A5.8 – Final Conference

WP5 culminated in the **Final Conference**, held in [insert location/date]. The event gathered consortium members, policymakers, practitioners, and external experts to present results, discuss scalability, and explore future cooperation opportunities.

Dissemination materials—including the final guidelines—were distributed during the event, ensuring visibility and knowledge transfer at the European level.

Deliverable – Final Conference and Panel Discussion Report

1. Overview

The **Final Conference of the GEMMA Project** took place on **14 July 2025** at **Aula Leogrande, Centro Polifunzionale Studenti, Piazza Cesare Battisti 1, Bari (Italy)**.
The event represented the **culmination of the project's implementation activities** and provided a platform to disseminate results, share experiences from pilot trials, and explore strategies for sustainability and future cooperation.

A **Panel Discussion** was held on **15 July 2025**, dedicated to summarising the **project's overall conclusions** and identifying recommendations for post-project exploitation.

2. Objectives of the Event

The Final Conference and Panel Discussion aimed to:

- Present the main **results and deliverables** of the GEMMA Project.
- Showcase the **MOOC and Serious Game (SG)** outcomes and feedback from trials conducted in the partner countries.
- Facilitate **knowledge exchange** among researchers, educators, and institutional stakeholders.
- Reflect on the **impact, sustainability, and scalability** of the GEMMA outputs.
- Discuss future collaboration opportunities beyond the project's lifetime.

3. Programme of the Final Conference – 14 July 2025

Venue: Aula Leogrande, Centro Polifunzionale Studenti, Bari
Organised by: University of Bari Aldo Moro (UniBa) – Project Coordinator

Agenda of the Day

Time	Session	Speaker / Institution
09:00	Welcome and Registration	–
09:30	Institutional Greetings	**Prof. Stefano Bronzini**, Rector, University of Bari **Prof.ssa Loredana Perla**, Head of Department FORPSICOM
10:00	*Project Presentation*	**Prof. Alberto Fornasari (UniBa)** – Principal Investigator
10:20	*MOOC and Serious Game Feedback in Poland*	**Prof. Aleksandra Matulewska (Adam Mickiewicz University)**
11:00	Coffee Break	–
11:30	*Professional Growth in a European Context: My Experience in the GEMMA Project*	**Dr. Federica Illuzzi (UniBa)**
11:45	*Evaluating Text-to-Speech AI for Multilingual MOOC Production: The GEMMA Case Study*	**Dr. Giada Totaro (UniBa)**

Time	Session	Speaker / Institution
12:00	*From Platform to Practice: Testing GEMMA's MOOC and Serious Game at the University of Bari*	**Dr. Michele Martulli (UniBa)**
12:15	Round Table Discussion	All speakers and participants
13:00	Lunch and Networking	–

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4. Summary of the Proceedings

4.1 Institutional Opening

The conference was officially opened by **Prof. Stefano Bronzini** and **Prof.ssa Loredana Perla**, who emphasised the University of Bari's commitment to international collaboration and digital innovation in higher education.
They highlighted GEMMA as a model of **European cooperation in inclusive and multilingual learning**.

4.2 Project Presentations

The morning session featured presentations from GEMMA partners:

- **Prof. Alberto Fornasari (UniBa)** introduced the **overall project framework**, objectives, and key achievements under WP5, focusing on data collection and evaluation.
- **Prof. Aleksandra Matulewska (Adam Mickiewicz University)** shared **pilot feedback from Poland**, demonstrating the adaptability of GEMMA's Serious Game and MOOC to national contexts.

4.3 Thematic Presentations and Round Table

Subsequent sessions explored research and pedagogical innovations emerging from GEMMA:

- **Dr. Federica Illuzzi (UniBa)** discussed personal and institutional growth through transnational collaboration.
- **Dr. Giada Totaro (UniBa)** presented an **AI-based approach to multilingual content creation**, showcasing how Text-to-Speech technologies supported accessibility.
- **Dr. Michele Martulli (UniBa)** illustrated the process of **testing and validating GEMMA tools** at UniBa, highlighting user engagement and usability results.

The **Round Table Discussion** provided an open forum for participants to reflect on implementation experiences, focusing on:

- Integration of GEMMA outputs into academic courses.

- The role of digital innovation in fostering inclusive learning environments.
- Recommendations for future exploitation and sustainability.

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5. Panel Discussion – 15 July 2025

On the second day, representatives from all partner institutions convened for a **Panel Discussion** to assess final results and conclusions.

Main Discussion Points

- Review of **WP5 outcomes**: confirmation that the project reached the **overall participation target (515 participants)** combining Serious Game (287) and MOOC (228) users.
- Analysis of **App download data** (246 total), achieving 77% of the O4.4 target, and discussion of ongoing promotion efforts.
- Reflection on **user satisfaction** and **usability results**, showing strong positive feedback across languages.
- Identification of **implementation challenges** (different academic calendars, uneven national participation).
- Consensus on **sustainability actions**, including integrating GEMMA tools into curricula and maintaining access to digital platforms post-project.

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6. Conclusions

The Final Conference and Panel Discussion confirmed that the GEMMA project:

1. **Successfully achieved its overall objectives**, particularly the validation of the MOOC and Serious Game as effective tools for digital and multilingual learning.
2. **Exceeded participation targets** at consortium level (515 ≥ 500), demonstrating strong user engagement and interest.
3. **Fostered international collaboration**, knowledge exchange, and cross-cultural learning among partner universities.
4. **Delivered tangible pedagogical and technological results**, supporting the development of inclusive, competence-based education.
5. Identified **contextual limitations** (e.g., academic scheduling differences) to be addressed in future replication activities.

The consortium collectively agreed on the importance of:

- Continuing to **promote the GEMMA App and MOOC** as open educational resources (OER).
- **Integrating GEMMA outputs** into formal university courses to ensure long-term sustainability.
- Exploring **new funding opportunities** for follow-up projects focusing on multilingual, AI-enhanced learning environments.

7. Impact and Legacy

The GEMMA Final Conference served as both a **dissemination milestone** and a **strategic reflection point**.
It enabled partners and participants to:

- Consolidate the project's intellectual, technological, and educational contributions.
- Strengthen inter-university cooperation and transnational exchange.
- Build a shared roadmap for **post-project sustainability and exploitation**.

The event received positive feedback from participants and reinforced GEMMA's position as a **European reference initiative** in digital multilingual education and serious game-based learning.

Results and Impact

WP5 achieved its objectives by validating the project's solutions in real operational settings and transforming field data into actionable recommendations.
The trials confirmed the adaptability and relevance of the developed tools across diverse cultural and institutional contexts.
The resulting **Guidelines** and **Final Conference** ensured wide dissemination, contributing to the sustainability and replicability of the project outcomes.

Updated Overview of the Serious Game (SG) Trial Data

During the implementation of WP5 activities, data were collected through two separate forms designed and administered by consortium partners: the **AMU Form** and the **SGF Form**. These instruments were developed to capture participant feedback and performance indicators related to the Serious Game (SG) trial.

Following the conclusion of data collection, both datasets were consolidated to obtain a unified overview of participant engagement and responses.

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1. Data Consolidation

- **SGF Form responses:** 221
- **AMU Form responses:** 66
  Total: 287 valid responses

The combined responses represent participants across all five pilot countries, as distributed below:

Country	Number of Responses
Italy	119
Finland	10
Poland	55
Spain	52
Greece	51
Total	**287**

The consolidated dataset reflects active engagement in the Serious Game trial, with Italy showing the highest participation rate. The relatively lower response rate from Finland can be attributed to differing academic schedules and local recruitment contexts.

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2. App Access Data (Indicator O4.4)

In line with the project's **Output Indicator 04.4** ("Number of App accesses"), App download data were monitored via both the Apple App Store and Google Play platforms:

Platform	Downloads
Apple App Store	121
Google Play	125
Total	**246**

According to the project proposal, the target for this indicator was set at **320 App accesses**. The current total of **246 downloads** represents approximately **77% of the target value**. To bridge this remaining gap before the official project closure, it is recommended that all partners **intensify dissemination and promotional efforts** through their institutional and professional networks, encouraging further App downloads and use.

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3. Achievement of Participant Targets

The WP5 description established a target participation level of **a minimum of 500 participants**, distributed as approximately 100 participants per country, encompassing both the **Serious Game (SG)** and the **MOOC** trials.

By combining:

- **287 respondents** from the SG trial, and
- **228 respondents** from the MOOC questionnaire,

we reach a **total of 515 participants**, thus **meeting and slightly exceeding the overall project target**.

However, the **distribution by country** shows that the **individual target of 100 participants per country was not uniformly achieved**. This variation is primarily due to:

- Differences in **academic calendars** and course schedules across participating universities.
- Varied timelines for **national implementation and recruitment** phases.
- Institutional constraints affecting access to student cohorts during testing periods.

These factors should be acknowledged in the final documentation as part of the **study's limitations**, while emphasizing that the **overall engagement objective of 500 participants was successfully achieved** at the consortium level.

4. Conclusions and Recommendations

Conclusions (WP5 – SG & MOOC)

Overall participation targets were achieved at consortium level. Combining 287 respondents from the SG trial (221 via the SGF form; 66 via the AMU form) with 228 MOOC questionnaire respondents yields 515 participants, thereby meeting and slightly exceeding the WP5 target of ≥500 participants. This confirms substantial reach and engagement across the two core digital components (SG and MOOC).

Country-level participation was uneven and below the "≥100 per country" benchmark.

The SG respondents were distributed as follows: Italy (119), Finland (10), Poland (55), Spain (52), Greece (51). While the consortium met the overall participation goal, the per-country target (≥100) was not uniformly reached. This disparity is attributable to asynchronous academic calendars, local recruitment windows, and institutional constraints that affected access to cohorts and the timing of in-class testing opportunities. These contextual factors should be explicitly acknowledged as study limitations.

App access (O4.4) shows progress but remains short of target.

Recorded downloads total 246 (121 Apple App Store; 125 Google Play) against a target of 320. This corresponds to ~77% achievement. A final promotional push—mobilising partner communication channels, in-class reminders, and social media—could still narrow this gap before project close.

Usability and user experience indicators are positive across language datasets.

Analysis of the Module 2 English and Spanish datasets indicates consistent, positive end-user feedback on core usability dimensions (e.g., clarity, perceived usefulness/learning value, and ease of navigation). While item labels vary across forms, Likert-type items in both language datasets cluster toward the positive end of the scale, suggesting that the SG is intuitive and well-received by learners. Minor improvement areas relate to localisation nuances and contextual examples, which can be addressed in post-project updates.

Complementarity of SG and MOOC supports learning aims.

The combined evidence (SG + MOOC) shows that the two components reinforce one another: the SG engages and motivates practice, while the MOOC structures knowledge acquisition and reflection. This blended digital pathway appears suitable for integration into course modules and short learning experiences, with potential for scaling via curricula rather than ad-hoc recruitment.

Limitations.

Timing & calendars: misaligned semester timelines limited synchronous recruitment and classroom testing in some institutions.

Sampling variability: uneven country distribution constrains country-level generalisability.

Measurement fragmentation: use of two SG forms (AMU and SGF) required ex-post consolidation; harmonised instruments would improve efficiency and comparability.

Recommendations.

Close O4.4 gap: enact a short, time-boxed campaign (department newsletters, LMS announcements, class slides, QR codes on posters) to boost App downloads toward 320.

Institutionalise delivery: embed SG + MOOC into course syllabi (credit-bearing or mandatory seminar activities) to stabilise annual participation and even out country totals.

Harmonise instruments: adopt a single, standardised evaluation form (common item set + optional local block) and a shared codebook, enabling streamlined analysis and cross-country comparability.

Targeted localisation: refine language and examples where feedback suggests improvements; provide brief usage guidance within the App to reduce onboarding friction.

Monitoring & analytics: implement lightweight in-app analytics (events for session length, module completion, and hint usage) to complement surveys and improve evidence on learning progression.

Bottom line.

WP5 demonstrates that the project's digital learning offer successfully reached its overall participation objective (515 ≥ 500) and delivered positive user experiences across languages and contexts. While country-level targets were not uniformly met, the causes are contextual and documented; planned actions can mitigate these in future iterations. With minor localisation and evaluation streamlining, and by embedding SG + MOOC within curricula, the approach is ready for sustained adoption and scale-up.The consolidated data confirm strong engagement with the Serious Game across partner countries and demonstrate that the project has achieved its overall participation goals. To further strengthen the results before the project's completion, the consortium should:

- Continue promoting the App within university and partner networks to approach or reach the 320-access target.

- Include in the final deliverables a clear note explaining cross-country participation discrepancies, framed as contextual limitations linked to differing academic cycles and recruitment capacities.

Overall, the data collected in WP5 provide a solid evidence base for assessing the usability, dissemination, and impact of the Serious Game component within the project framework.

Appendices

1. Report – Trial Results
2. Technical Report