Quality Management Plan

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Quality Management Plan

GIRLS Project

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1. INTRODUCTION

The PM² guide describes a light Quality Management section of the Project Handbook. However, the usage of this Quality Management Plan template is advised in case of complex or risky projects where quality activities are of special importance for the project.

Given the specific nature of the Erasmus+ project GIRLS - Generation for Innovation, Resilience, Leadership and Sustainability, the Project Manager and the consortium have determined that a dedicated Quality Management Plan (QMP) is essential for its success. This decision is based on several key characteristics that define the project's complexity and the high value placed on its outcomes:

- A diverse and complex consortium: The project brings together eight partners from four countries, including a third country not associated with the programme (Mexico). This consortium is intersectoral, comprising universities, a leading research institute, an NGO, and a secondary school. Furthermore, it includes a mix of partners with extensive Erasmus+ experience and organisations new to the programme, which requires a structured approach to support and integration.
- An innovative and ambitious scope: The entire project is innovatively structured as a game, with a large number of activities (20) and expected results (over 30) across five work packages. These results include a videogame, methodology manuals, a published book with a prestigious publisher, Springer, and multiple international events. The project's objectives extend beyond simple outputs to fostering institutional transformation, a high-reward but inherently complex goal.
- A formal commitment to high-quality standards: From its inception, the project has placed special importance on quality. The project explicitly commits to using the PM² methodology, adhering to Open Access requirements for all materials, and applying Universal Design for Learning (DUA) principles to ensure all resources are inclusive and accessible. The final indicators will demonstrate the success of this quality-focused approach, with participant satisfaction consistently rated at the highest levels and tangible improvements in professional competencies.

Therefore, this QMP serves as the definitive guide for all partners. It outlines the strategy and specific activities to manage quality proactively, mitigate risks associated with its complexity, and ensure that all deliverables meet the ambitious standards set forth in the project's application and the expectations of the Erasmus+ programme.

The objectives of this document are:

1. To outline the quality strategy, approach and process to be used for the project;
2. To identify the roles and responsibilities related to project quality management;
3. To identify the major project management artefacts and deliverables;
4. To define the quality assurance and control activities and to plan them throughout the project;
5. To support the agreement on project quality requirements and metrics, and the method to evaluate them;
6. To specify the methodology, standards, tools and techniques used to support quality management.

2. QUALITY MANAGEMENT OBJECTIVES

Project quality management aims to ensure that the current project will meet the expected results in the most efficient way and that deliverables will be accepted by the relevant stakeholders. It involves overseeing all activities needed to maintain a desired level of excellence. This includes creating and implementing quality planning and assurance, as well as quality control and quality improvement.

This project will follow the PM² quality management process that comprises the activities related to the identification, planning, execution, and monitoring & control of project quality related activities.

The main project quality objectives for the GIRLS project are customized as follows:

1. Ensure the project's key quality characteristics are defined, agreed, and achieved throughout the project's lifecycle. This involves:
   - Pedagogical innovation: Guaranteeing that the project's innovative structure as a "game" and its focus on active methodologies (Service-Learning, Game-Based Learning, etc.) result in effective and engaging learning experiences for all participants.
   - Academic rigour and relevance: Ensuring that all intellectual outputs, particularly the final book published with a prestigious publisher like Springer and the numerous conference papers, meet high academic standards and contribute valuable knowledge to the European Higher Education Area.
   - Inclusivity and accessibility: Systematically applying the Universal Design for Learning (DUA) principles to all project materials (manuals, videos, App) to ensure they are accessible to the widest possible audience, minimizing physical, sensory, and cognitive barriers.
   - High-Quality digital resources: Ensuring all digital deliverables, such as the GIRLS videogame, elevator pitch videos, and methodology manuals, are functional, user-friendly, and pedagogically sound.

2. Ensure that quality assurance activities are performed as planned and effectively managed. This objective is specified by:
   - Implementing the formal quality assurance framework based on the PM² methodology, to provide consistent oversight across all Work Packages.
   - Maintaining the planned schedule of frequent monitoring meetings (physical and online) as the primary mechanism for reviewing progress, quality, and risks collaboratively.

3. Assure full compliance with Erasmus+ Programme regulations and the project's internal commitments.
   - Guaranteeing strict adherence to the Erasmus+ Open Access requirement, ensuring all project results and materials remain publicly and freely available for long-term use after the project's conclusion.
   - Ensuring compliance with the co-financing principle and demonstrating responsible financial management of the project's lump-sum grant.

4. Foster a culture of continuous improvement where any non-conformity is identified and addressed.
   - Actively using feedback from both internal evaluations and external validation activities, such as the workshop at the SEFI'2023 conference, to refine project activities and enhance the quality of outputs.

5. Ensure all deliverables are accepted by relevant stakeholders based on tangible impact and exceptional satisfaction.
   - Achieving and maintaining an exceptionally high level of satisfaction among all project partners and direct participants, targeting the outstanding scores (consistently rated 5 out of 5) demonstrated in the project's final indicators.
   - Delivering a demonstrable and measurable impact on the professional development of participants, specifically by enhancing their digital competencies to advanced levels (C1-Leader, B2-Expert) and fostering the practical application of innovative teaching methodologies in their classrooms.
   - Successfully realizing the project's "essential added value" by leveraging the international partnership with the university from Mexico to provide a unique, non-European perspective on the SDGs and Service-Learning.
   - Achieving a wide-reaching and documented dissemination impact, ensuring project results are shared with and used by target groups at all levels, as evidenced by the engagement with Higher Education Institutions in Latin America and NGOs and public bodies in Europe.

3. QUALITY MANAGEMENT PROCESS

The project quality management process comprises all activities (related both to processes and deliverables) that will increase the ability to meet the project expected results identified in the Project Proposal.

The quality management process for this project is comprised of five key steps:

- Define (Project) Quality Characteristics;
- Perform Quality Assurance;
- Perform Quality Control;
- Perform Deliverables Acceptance; and
- Perform Final (Project) Acceptance.

Step 1: Define Quality Characteristics

The quality characteristics for the GIRLS project are derived directly from its core objectives and innovative approach. They represent the standards against which all project outputs and activities will be measured:

- Pedagogical innovation and excellence: quality is defined by the project's ability to stimulate innovative teaching and learning practices in Higher Education. This includes the effective implementation of the project's game structure and the four core active methodologies: Service-Learning (SL), Game-Based Learning (GBL), Research-Based Learning (RBL), and Competence-Based Learning (CBL).
- Digital quality and accessibility: All digital resources, including the GIRLS videogame, elevator pitch videos, and methodology manuals, must be of high quality, functional, and pedagogically sound. A key quality characteristic is adherence to the DUA model to ensure all materials are inclusive and accessible to the widest possible audience.
- Academic rigour and relevance: All intellectual outputs must meet high academic standards. This is particularly relevant for the final book published with Springer, and the numerous papers and communications presented at national and international conferences such as SEFI. The extensive list of publications serves as evidence of this commitment.
- High social impact and community engagement: Quality is measured by the project's success in connecting the university with society. This involves creating tangible benefits for local communities through Service-Learning projects and collaboration with NGOs. The impact is demonstrated by the extensive network of external organisations reached, including Higher Education Institutions in Latin America.
- Effective transnational and intersectoral cooperation: The quality of the project is dependent on the seamless collaboration between the diverse partners (universities, research institute, NGO, secondary school). A specific quality characteristic is the successful integration of the Mexican partner to provide an "essential added value" through a non-European perspective on the SDGs.

Step 2: Perform Quality Assurance

Quality Assurance focuses on the processes and procedures that ensure the project is executed correctly. The QA process for GIRLS is proactive and systematic.

- Establishment of a formal quality framework: As planned, the quality expert, with its extensive research and project management experience, leads the project's quality assurance. The first QA activity is the development and dissemination of a Quality Manual based on the PM² methodology. This manual includes templates and defines the standards for all project documentation and processes.
- Systematic monitoring and regular reviews: The primary QA mechanism is the schedule of frequent project meetings. During these meetings, the PM and WP leaders review progress,

assess adherence to the quality plan, and manage risks. This frequent communication ensures continuous process improvement.

- Peer support and capacity building: To ensure consistent quality across a consortium with varied experience levels, experienced partners are formally tasked with supporting and guiding the less experienced partners.
- External peer validation: The project actively seeks external feedback to assure the quality and relevance of its approach. An example of this is the workshop conducted at the SEFI'2023 conference in Dublin, where the project's pedagogical ideas were presented to and discussed with 29 international peers from 16 countries, receiving valuable feedback and validation.

Step 3: Perform Quality Control (QC)

Quality Control involves the inspection of project outputs to ensure they meet the defined quality characteristics. The GIRLS project uses a comprehensive set of quantitative and qualitative indicators for QC, as detailed in the final indicators report.

- Quantitative Quality Control: This involves measuring tangible outputs against the planned targets.

  - Deliverable production: Tracking the number of intellectual outputs, such as the 17 elevator pitch videos, 4 methodology manuals, and the high volume of academic publications (partners consistently produced 2-3 book chapters and 4-6 conference papers each).

  - Dissemination reach: Measuring the number of external entities reached through dissemination activities.

  - Participation levels: Counting the number of staff and students participating in key activities, such as local projects and the mobility to Mexico.

- Qualitative Quality Control: This involves assessing the impact, satisfaction, and overall excellence of the project's results.

  - Participant satisfaction: Collecting and analysing feedback from all partners and participants. The results show overwhelmingly positive satisfaction, with scores for activities, cooperation, and overall quality consistently rated 5 out of 5.

  - Competence development: Assessing the improvement in participants' skills. Final indicators show that participants significantly enhanced their digital competencies to advanced levels (C1 – Leader and B2 – Expert). Participants also confirmed the practical application of new methodologies like Service-Learning (SL) and Project-based Learning (PBL).

  - Impact on institutions: Evaluating institutional change, measured through the creation of sustainability reports and quality process files by each partner.

Step 4: Perform Deliverables Acceptance

A formal process is followed to ensure all deliverables are reviewed and officially accepted before being finalised and disseminated:

1. Drafting and internal peer review: The partner responsible for a deliverable create a draft. This draft is first reviewed by the respective Work Package Leader.
2. Quality assurance review: The draft is submitted to the Quality Assurance team for a formal check against the standards defined in the Quality Manual (e.g., academic rigour, DUA principles, correct branding).
3. Consortium-wide feedback: The reviewed draft is shared with all partners before a project meeting for final comments and validation, ensuring collective ownership.

4. Formal approval: The final version is formally approved by the Project Manager. For major project results like the Springer book or the final report, approval from the Project Steering Committee is required.

5. Public release: Once accepted, the deliverable is published on the project website and the Erasmus+ Project Results Platform.

Step 5: Perform Final Acceptance

The final acceptance of the entire project involves a comprehensive evaluation of its overall success and the formal closing of all activities.

1. Final Project Evaluation (WP5 - "Game Over!"): A final evaluation is conducted by comparing the results documented in the final indicators report against the project's initial objectives (OB1-OB4). This determines the extent to which the project has achieved its goals.

2. Final dissemination and validation: The project's consolidated results are presented to the wider academic community and stakeholders for final validation at the SEFI annual conference and the conference in Bucharest and through the publication of the final Springer book.

3. Formal reporting and closure: The coordinator prepares and submits the Final Report to the Spanish National Agency (SEPIE), which constitutes the formal acceptance by the funding authority.

4. Sustainability and transition activation: As a final step, the consortium ensures all project results are permanently available on a university server and that plans for their continued use are communicated to academic authorities, thus securing the project's long-term legacy.

3.1. Quality Management Roles and Responsibilities

The following RASCI table defines the responsibilities of those involved in quality management for the GIRLS project. The generic PM² roles have been mapped to the specific entities within the project consortium.

Activity / Deliverable	AGB (SEPIE)	PSC (All Partners)	PM (USAL)	QA Lead (CSIC)	WP Leaders (AELCLÉS, FERMI, etc.)	PCT (All Partners)
Quality Management Plan	I	A	S	R	C	C
Deliverables Acceptance Plan	I	A	R	C	C	S
Perform Quality Assurance	I	I	A	R	S	S
Perform Quality Control	I	I	A	C	R	R
Perform Deliverables Acceptance	I	A	R	C	S	C
Perform Final Acceptance	A	S	R	I	I	I

Legend: **R**=Responsible, **A**=Accountable, **S**=Support, **C**=Consulted, **I**=Informed

Role Mapping:

- AGB (Appropriate Governance Body): The Spanish National Agency (SEPIE).

- PSC (Project Steering Committee): Representatives from all 8 partner organisations.

- PM (Project Manager): The coordinating institution, University of Salamanca (USAL).

- QA Lead (Quality Assurance Lead): The partner formally assigned this role, CSIC (Agencia Estatal Consejo Superior de Investigaciones Científicas).

- WP Leaders (Work Package Leaders): AELCLÉS (WP2), MARISTAS (WP3), UVAQ (WP4), UFV (WP5).

- PCT (Project Core Team): All active staff from the 8 partner organisations involved in executing project tasks.

The project quality approach and criteria are agreed upon by the Project Steering Committee (PSC), based on the high standards set in the project application, including the use of PM², Open Access, and Universal Design for Learning (DUA).

The Project Manager is ultimately accountable for the correct and full completion of all quality assurance activities. The role of project quality reviewer is formally assigned to the CSIC, which is Responsible for leading the development of the Quality Manual and overseeing QA activities throughout the project, as stated in the project application.

The WP and Activity keaders are Responsible for performing quality control activities on their respective deliverables, ensuring they meet the defined standards. The entire PCT is responsible for contributing to a culture of quality. The PM is Accountable for ensuring this process is followed across all project activities. This is verified by the excellent results in the final indicators, showing consistently high satisfaction (5 out of 5) and the successful creation of a large number of high-quality outputs.

The PM - USAL, supported by its International Projects Office (OPI) and administrative staff, is Accountable for scheduling the acceptance activities and ensuring that they are performed according to the plan.

The Project Steering Committee (PSC) is Accountable for the internal acceptance of major deliverables (e.g., final book, App) and the project as a whole before its submission to the funding authority. The PSC ensures that the project's results align with the strategic objectives and that resources have been used effectively to produce outputs of high value and impact. The final, formal acceptance of the project is performed by the Appropriate Governance Body (SEPIE) upon submission and approval of the final report.

4. TOOLS AND TECHNIQUES

The following techniques will be used for project quality management to ensure the successful delivery of high-quality results and the achievement of the project's ambitious objectives:

- Project Review Meetings: This is the primary technique for monitoring quality and progress. The Project Manager and all partners review the status of activities, deliverables, risks, and adherence to the quality plan.

- Questionnaires and surveys: This technique is used extensively to gather both qualitative and quantitative data for quality control. It is used to measure participant satisfaction, assess the development of digital competencies (with the SELFIE questionnaire), and gather feedback on activities. This was also used for external validation at the SEFI Annual Conference.

- Peer reviews: A fundamental technique for ensuring academic rigor. All major intellectual outputs, such as the chapters for the Springer book and papers for international conferences (SEFI, ICMASE, etc.), undergo a formal external peer-review process. Internally, all deliverables are peer-reviewed by the consortium partners before final approval.

- Workshops and collaborative sessions: This technique is central to the project's methodology. It includes the initial training seminar in Salamanca on active methodologies and digital tools, the dissemination workshop organized by Coimbra's partner to test initial results, and the international workshop at the SEFI'2023 conference for external peer validation.

- Indicator-based monitoring: The project's progress and quality are systematically measured against a detailed set of predefined qualitative and quantitative indicators for each work package. The final indicators report provides a comprehensive evaluation of the project's achievements against these metrics.

- Walkthroughs: This technique is used during project meetings and collaborative sessions to review the content and structure of key deliverables, such as the methodology manuals and the GIRLS videogame, ensuring they are coherent and meet the project's pedagogical goals.

- Acceptance testing: Used to validate the functionality and user experience of key digital outputs. The GIRLS videogame was subject to initial testing during Coimbra's workshop to gather feedback from external users and inform improvements.

- Statistical Analysis: This technique is used by partners with relevant expertise (e.g., ISEC) to analyze the data collected from surveys and research activities, providing robust evidence for the project's impact and findings. Several publications reflect the use of statistical analysis on project-related data.

The following tools will be used to support the implementation of the quality management techniques described above:

- PM² Artefacts: The project will use a suite of tailored PM² templates, as managed by the Quality Assurance Lead, to ensure a standardized and systematic approach. This includes:
  - PM² Quality Management Plan (this document)
  - PM² Quality Review Checklists
  - PM² Quality Review Reports
  - PM² Project-End Report
  - Deliverables Acceptance Notes

- Quantitative and qualitative indicator reports: A key tool for quality control is the detailed report compiling the project's performance against its defined indicators. This tool provides clear evidence of the achievement of objectives.

- Online survey tools: Digital tools (e.g., Google Forms) are used to design, distribute, and collect data from the questionnaires sent to participants and partners.

- Project website: The official project website serves as a central quality management tool. It is the public repository for all open-access deliverables, ensuring transparency and long-term availability of results.

- Collaborative digital platforms: The project uses and promotes various collaborative tools to enhance cooperation and quality. Participants have integrated platforms like Padlet into their work as a direct result of the project. The training seminar also included tools like Genial.ly and Socrative.

- Communication tools: A set of digital communication tools ensures fluent information flow, which is critical for proactive quality management. This includes platforms for online meetings (Zoom, Google Meet), email for formal communication, and a WhatsApp group for direct and efficient coordination.

- Gantt Chart: This tool was used during the planning phase to manage the project timeline and resource allocation and continues to be a reference for monitoring progress against the schedule.

- Research and dissemination platforms: Platforms such as ResearchGate, SpringerLink, and the official Erasmus+ Project Results Platform are used to disseminate results to a wide audience. The reach and citation of publications on these platforms serve as an external measure of the quality and impact of the project's intellectual outputs.

5. QUALITY ASSURANCE ACTIVITIES

The PM is the overall accountable party for the quality assurance activities within the project. It is also responsible for scheduling and initiating all formal project reviews.

The quality assurance activities will be performed by several key groups to ensure a comprehensive and multi-layered approach:

- The Project Quality Assurance (PQA) team, which is formally led by CSIC, as designated in the project application. CSIC is responsible for developing the Quality Manual and overseeing the implementation of QA processes.

- The Project Core Team (PCT), comprising all partner organizations, which actively participates in peer reviews, collaborative quality checks, and the implementation of QA procedures in their daily work.

- External entities, which provide independent validation. This includes:

  o The Spanish National Agency (SEPIE), which performs a final audit through the review of the project's interim and final reports.

  o External academic peers, whose feedback is actively sought at international conferences, such as the workshop at the SEFI'2023 conference, which served as an external validation of the project's pedagogical approach.

The quality assurance activities include the following:

- Compliance verification: Verification of compliance with the Erasmus+ Programme Guide rules and regulations, particularly the Open Access requirement for all produced materials and the co-financing principle. This also includes adherence to the internal policies of partner institutions and national regulations.

- Artefact reviews and approvals: A systematic review process for all project management deliverables (artefacts). Drafts are reviewed first by the responsible WP Leader, then by the PQA Lead against the Quality Manual's standards, and finally by the entire PCT before formal approval by the PM.

- Quarterly progress and Quality Reports: In place of monthly reports, the project utilizes a more robust system of quarterly online meetings. During these meetings, all partners report on the progress of their tasks, allowing for timely identification of quality issues and implementation of corrective actions.

- Project review meetings: The scheduled physical and online meetings serve as the primary forum for QA. These meetings include dedicated agenda points for reviewing progress against indicators, assessing quality, and managing risks, ensuring all partners are involved in the quality loop.

- Project Steering Committee Meetings: The PSC, composed of representatives from all partners, convenes during key project milestones (such as the physical meetings) and as needed to provide strategic oversight and formally approve major project results and changes.

- Milestone reviews: Progress is reviewed upon the completion of key milestones, such as the delivery of the 17 elevator pitch videos, the methodology manuals, and the GIRLS videogame. These reviews ensure that the project is on track and that foundational deliverables meet quality standards before subsequent activities begin.

- Phase-Exit reviews: Aligned with the project's innovative "game" structure, reviews are conducted at the end of each major Work Package (e.g., WP2 "The Board," WP3 "The Rules of the Game") to ensure all objectives for that phase have been met before proceeding to the next.

- Deliverables acceptance testing: Key project results undergo testing and validation with target users. A prime example is the workshop in Coimbra, which was designed to conduct initial tests ("Realizar pruebas iniciales") of the video game with external educators to gather feedback for improvements.

- Audits to contractors' project quality activities: For subcontracted activities, such as the development of the videogame, the PM is responsible for ensuring the contractor adheres to the quality requirements and specifications defined by the consortium.

- Stakeholders' satisfaction questionnaires: This is a core QA activity for the project. Quantitative and qualitative surveys are systematically used to collect feedback from all participants on their satisfaction with activities, cooperation, and the overall quality of the project. The final indicators report shows this technique was highly effective, revealing overwhelmingly positive satisfaction with scores consistently rated 5 out of 5.

6. METRICS

This section includes the quality criteria to be collected and reported during the project for project artefacts (i.e., project management outputs). The criteria related to the testing of the project deliverables and their formal acceptance are detailed in this Quality Management Plan, as a separate Deliverables Acceptance Plan does not exist.

The following table has been customized to align with the GIRLS project's specific management structure, particularly its **quarterly review cycle** and its operation under a **lump-sum funding model**.

Criterion Name	Frequency	Tolerance
Artefacts Review (per project phase)	Per artefact, upon completion	No tolerance. All key management documents (e.g., Quality Manual, Dissemination Plan) must be formally reviewed.
Progress and Quality Status Reports (at review meetings)	Quarterly	1 month. To allow for rescheduling of the quarterly online meetings.
Project Review Meetings Performed	Quarterly	1 month. As per the established schedule of online meetings over the project's 36-month duration.
Project Steering Committee (PSC) Meetings Performed	Per key milestone (at least twice during the project)	As agreed by the PSC. Meetings are aligned with the two planned physical gatherings and as needed for strategic decisions.

Milestone Reviews Executed (e.g., Completion of GIRLS App beta, Submission of Springer book manuscript)	Per milestone	No tolerance. Critical for ensuring foundational deliverables are complete before subsequent work begins.
Phase-Exit Reviews Executed (e.g., End of WP2 'The Board', End of WP4 'The Game')	Per phase-exit (at the conclusion of each Work Package)	No tolerance. Essential for confirming that all objectives of a phase have been met.
Internal Project and Process Audits	At key reporting periods (interim and final)	No tolerance. Aligned with the deadlines for reporting to the National Agency (SEPIE).
Audits to Contractors' Quality Activities (e.g., for the development of the videgame)	During and upon completion of the subcontracted work	No tolerance. Essential for ensuring value for money and adherence to project specifications.
Stakeholders' Satisfaction Questionnaires Sent, Received and Analysed	At the end of key project phases and upon project completion	No tolerance. This data is a primary indicator of project impact and success, as evidenced by the comprehensive final indicators report.
Deliverable Production Metrics Tracked (e.g., Number of videos, manuals, publications)	Quarterly	Minor deviations are acceptable if justified and compensated for in later periods.

Note on Timesheets: The metric "Monthly timesheets reviewed and approved" has been intentionally omitted. The GIRLS project is financed on a lump-sum basis, where funding is linked to the successful completion of activities and deliverables, not the reporting of person-days. Therefore, formal timesheet collection and review is not a required quality metric for this project. Budgetary control is managed through the oversight of deliverable completion against the agreed-upon budget per partner and work package.

7. QUALITY CONTROL

7.1. Quality Reviews

Project quality reviews will be performed quarterly in order to verify that all project plans and processes defined in the Project Handbook have been created and are executed as planned. These reviews are a central component of the project's management, conducted during the planned online meetings.

A Quality Review Checklist, derived from the project's Quality Manual, will be used to assess compliance with the planned activities and related outputs in domains such as scope, time, cost, quality, project organization, communications, risks, and stakeholder satisfaction.

Note that some of the approved remediation or/and improvement actions may also generate Change Requests and require updates to project documents and plans. Any such changes will be managed according to the process outlined in the Project Handbook.

The findings, recommendations and remediation/improvement actions will be consolidated in the meeting minutes, which serve as the Quality Review Report. These will be registered as issues in the

project's Issue Log and reported to the Project Manager (USAL) and the Project Steering Committee (all partners) as per the Communications Management Plan.

Every time the Quality Control step is executed, the effectiveness of the previous cycle's recommendations and remediation/improvement actions will be assessed to ensure a cycle of continuous improvement.

7.2. Deliverables Reviews

The reviews of project deliverables will be performed upon the completion of each deliverable, rather than at a fixed frequency, to ensure quality at every stage of production. As a formal Deliverables Acceptance Plan does not exist as a separate document, the acceptance activities are summarized below:

1. Drafting and peer review: The partner responsible for a deliverable create a draft, which is then peer-reviewed first by the respective Work Package Leader and subsequently by the entire PCT to ensure collective ownership and input from diverse perspectives.
2. Formal Quality Check: The draft is submitted to the QA lead for a formal review against the standards defined in the project's Quality Manual. This includes checking for academic rigour, adherence to DUA principles, and compliance with project branding and Erasmus+ requirements.
3. External validation (where applicable): For key results, feedback is sought from external stakeholders and target users. A prime example is the workshop in Coimbra, which was specifically planned to "Realizar pruebas iniciales" (conduct initial tests) of the GIRLS App with external educators to gather feedback for improvements.
4. Formal Acceptance: The final version of a deliverable is formally approved by thePM. Major project results, such as the final Springer book or the project's final report, require formal acceptance by the PSC.

7.3. Other Quality Control Activities

In addition to formal reviews, the project employs a robust set of specific quality control activities based on a comprehensive list of indicators to measure both the quality of outputs and their impact.

Quantitative indicator monitoring: The project's progress is tracked against specific quantitative targets. This includes:

- Production of intellectual outputs: Verifying the creation of all planned results, such as the 17 elevator pitch videos, 4 methodology manuals, the GIRLS videogame, and sustainability reports from each partner.
- Academic output tracking: Monitoring the number of academic publications, which serves as a measure of academic quality. The final indicators show partners consistently produced multiple outputs, such as 2-3 book chapters and 4-6 conference papers/posters each.
- Dissemination reach measurement: Quantifying the reach of the project, including tracking the number of external entities contacted.
- Activity and impact metrics: Tracking the number of local projects implemented, staff and students involved, and formal recognitions awarded (e.g., certificates/ECTS credits).

Qualitative Impact Assessment: The quality of the project's impact is controlled through the systematic collection and analysis of qualitative data. This includes:

- Stakeholder satisfaction surveys: Regularly deploying questionnaires to all participants to measure satisfaction with cooperation, activities, and overall quality. The results from this control activity have been overwhelmingly positive, with scores consistently rated 5 out of 5.
- Competence development evaluation: Assessing the tangible improvement in participants' skills. Final indicators confirm that participants advanced their digital competencies to high levels and successfully integrated new methodologies like SL and PBL into their teaching practices.

- External peer validation: Actively using feedback from external academic events as a quality control mechanism. The workshop at the SEFI'2023 conference, for example, provided external validation of the project's pedagogical approach from 29 international peers, who shared their own "fruitful educational experiences" with similar methods like SL and the use of Padlet.

8. QUALITY RECORDS

The quality records (evidence that quality management activities have been performed) are archived in the project's central repository. For the GIRLS project, this is a dual system: an internal, collaborative cloud platform for development and the official public-facing project website, referred to as the "Control Center", for final, approved versions. The different versions of the project artefacts (created at each artefact update) will provide evidence of the performance of these activities.

Key quality records for the GIRLS project include, but are not limited to:

- Meeting Minutes: Formal minutes from the project meetings, documenting discussions, decisions, action items, and quality reviews.
- Indicator Reports: The comprehensive quantitative and qualitative indicators report, which compiles data on participant satisfaction.
- Quality Review Artefacts: All documents produced by the Quality Assurance Team.
- Deliverable versions: All drafts and final approved versions of the project's intellectual outputs, such as the 17 elevator pitch videos, the 4 methodology manuals, the GIRLS videogame, the sustainability reports, the Springer book manuscript, and the final Logbook.
- Survey and feedback data: The raw and analysed data from all questionnaires, including internal satisfaction surveys and feedback from external validation events like the SEFI'2023 conference workshop.
- Academic and dissemination outputs: The final versions of all published works, including conference papers, posters, and book chapters, which serve as evidence of academic quality and impact.
- Official correspondence: Key communications with the Spanish National Agency (SEPIE), including the final report submission and any formal amendment requests.

These records collectively provide a transparent and comprehensive audit trail of the project's quality management activities from initiation to closure.

9. CONFIGURATION MANAGEMENT

The purpose of the project configuration management process is to help project stakeholders to manage project artefacts and deliverables effectively and to provide a single reliable reference to them, ensuring that the correct versions are delivered to the project requestor / client. Additionally, it helps the PM to identify the latest state of project artefacts and be able to gather all sources, documents, and other information for the project, prevent unauthorised changes, guarantee artefacts traceability, e.g. audit purposes, and return to previous versions (fall-back procedure).

The GIRLS project will follow the configuration management guidelines provided by the PM² methodology, tailored to its specific needs.

The project configuration management procedure comprises the identification of project configuration items (CIs), their attributes and status codes, the establishment of baselines, the definition of roles and responsibilities for authorised changes to CIs, and the maintenance and control of a project repository.

The key configuration items for the GIRLS project are its major management artefacts and intellectual outputs, including:

- Project Handbook

- Working sessions / kick-off meeting
- 17 videos elevator pitch
- 4 manuals about active methodologies
- GIRLS in Time videogame
- Design and develop the control center - Learning platform
- Dissemination plan
- Video-report "16 SGD about the woman"
- Quality guide
- Sustainability report
- Instruction manual
- Workshop by Coimbra's partner (including proceedings and survey results)
- 30+ Daily Digital Resources
- 5 local projects about service-learning
- Mobility to Mexico
- Experiential videos about SGD
- Grandma's handbook
- Springer book "Generation for Innovation, Resilience, Leadership and Sustainability in higher education"
- Provide feedback - Surveys and Statistical Analyses
- Conference in Bucharest and award ceremony (including proceedings)
- Scientific Publications: The extensive collection of book chapters, conference papers, posters, and journal articles produced by the consortium throughout the project.
- Project Logbook

All CIs will follow a standardized naming convention:

[ProjectAcronym]_[WP#]_[ArtefactName]_v[Major].[Minor]_[Status].

Example: GIRLS_WP3_Quality-Manual_v1.2_Approved.pdf

The status codes will include: Draft, ForReview, Approved, Final. This ensures clear identification of the latest approved version and prevents the use of outdated materials.

APPENDIX 1: REFERENCES AND RELATED DOCUMENTS

ID	Reference or Related Document	Source or Link/Location
1	Project_Handbook.(GIRLS).(02-06-2025).(v2.0).docx	\PROJECT ACTIVITIES & RESULTS\WP1_Management\Quality
2		Idem
3		Idem
4		Idem
5		Idem
6		Idem
7		Idem
8		Idem
9		Idem
10		Idem
11		Idem
12		