

Guidelines for Authors Creating Digital Educational Content for the Atollo Project

20.07.2024.

Project Overview:

Atollo is a groundbreaking initiative aimed at empowering learners with disabilities by creating inclusive digital materials specifically designed for children with intellectual disabilities. Supported by over one million euros from the European Union, this 32-month project involves a diverse consortium of 14 partners from 8 countries, including Croatia, Bulgaria, Austria, Iceland, Norway, Ireland, Germany and Australia. The consortium includes EdTech companies, universities, schools for children with special educational needs (SEN), public authorities, and NGOs.

Project Goals:

- **Develop innovative digital tools and high-quality digital educational content** that enhance **mathematical and digital competences** in children with intellectual disabilities.
- **Produce a minimum of 45 units of digital educational content**, distributed across the 4 levels of learning difficulty (profound, severe, specific, and moderate). Each unit consists of a minimum of 5 digital editable templates*.
- **Create an inclusive digital education toolkit** with comprehensive advice and instructions for users.

Author Profile for the Atollo Project

Academic and Professional Background:

- Expertise in Special Education, particularly in working with children with intellectual disabilities. Experience and understanding of the developmental characteristics of children with disabilities aged 5-10 years.
- Expertise in teaching Mathematics and Informatics (ICT) children with SEN.
- Experience in Educational Technology (EdTech) and digital content creation or ready to learn how to work in authoring tool on IZZI platform (training provided).
- Background/knowledge in curriculum development for children with special educational needs (SEN).

Practical Experience:

- Direct experience working with children with intellectual disabilities.
- Understanding the possibilities and concepts of content created with digital tools (digital educational content) and their application in working with children with disabilities.
- Involvement in projects or initiatives that develop educational materials for SEN students.

Skills and Competencies:

- Understanding various learning difficulties (profound, severe, specific, moderate) based on our project documents (Framework document and Programme analysis report).
- Ability and idea how to create engaging, user-friendly digital educational materials after training sessions.
- Understanding principles for inclusive education.

Collaborative and Multidisciplinary Approach:

- Ability to work with a diverse team, including educators, technologists, public authorities, and NGOs
- Willingness to work within international consortia or collaborative projects.
- Willingness to collaborate with other authors and experts when creating the content (editors, content managers etc.).
- Openness to new ideas and approaches and ability to transfer theoretical knowledge to practical examples

Geographical Relevance:

- Based in any of the consortium countries: Croatia, Bulgaria, Austria, Iceland, Norway, Ireland, Germany and Australia.
- Understanding of the educational systems and SEN frameworks in these countries based on our project documents (Framework document and Programme analysis report).
- Very good knowledge of English language.

Expected Activities for Authors of Digital Content

Training session (September 2024)

Through training sessions, authors will gain a comprehensive understanding of the project goals and the specific requirements for creating inclusive and engaging educational materials.

Presentation of Project Documents (2 hours):

Authors are expected to participate in a 2-hour presentation of the main project documents, including the Program Analysis Report and the Framework for Common Categorization of Program Levels.

- **Programme Analysis Report:** Provides a detailed overview of education systems in the partner countries, summarizing the similarities and differences in programs for learners with disabilities.
- **Framework for Common Categorization of Program Levels:** Describes support for different difficulty levels, suggests suitable digital content, and identifies competencies for the pilot digital content. This framework includes recommended editable templates for various program levels.

2-Day Online Training Session (10-12 hours total) on the IZZI Authoring Tool:

Authors are expected to participate in a 2-day online training session (10-12 hours in total) on the IZZI authoring tool, led by Profil Klett. This session will cover how to use the authoring tool and create digital educational materials.

Author Responsibilities and Activities for the Atollo Project

The project aims to produce a minimum of 45 units of digital educational content, each consisting of at least 5 digital editable templates. Our goal is to ultimately create 60 units (56 mathematical and 4 digital).

The Framework document envisages the creation of 7 modules (such as numbers and counting, shapes and spaces, measurements, etc.), each consisting of 2 units across 4 levels of learning difficulty covering mathematical competencies. Digital competencies will be covered with 4 separate units.

Author Expectations:

- Each author is expected to create a minimum of 4 units as a package. A package means selecting a module (e.g., Numbers and Counting) and creating a unit (e.g., Similar/Different) for each of the four levels of learning difficulty (4 units in total, e.g., Similar/Different - Level 1; Similar/Different - Level 2; Similar/Different - Level 3; Similar/Different - Level 4).
- Each unit has dedicated learning outcomes, and it is the author's responsibility to create content that achieves these outcomes through the prepared digital educational materials. Each unit must

include at least 5 learning objects/components, resulting in a minimum of 20 learning objects per package.

- **Levels of Learning Difficulty:**
 - Level 1: Profound learning difficulty
 - Level 2: Severe learning difficulty
 - Level 3: Specific learning difficulty
 - Level 4: Moderate learning difficulty

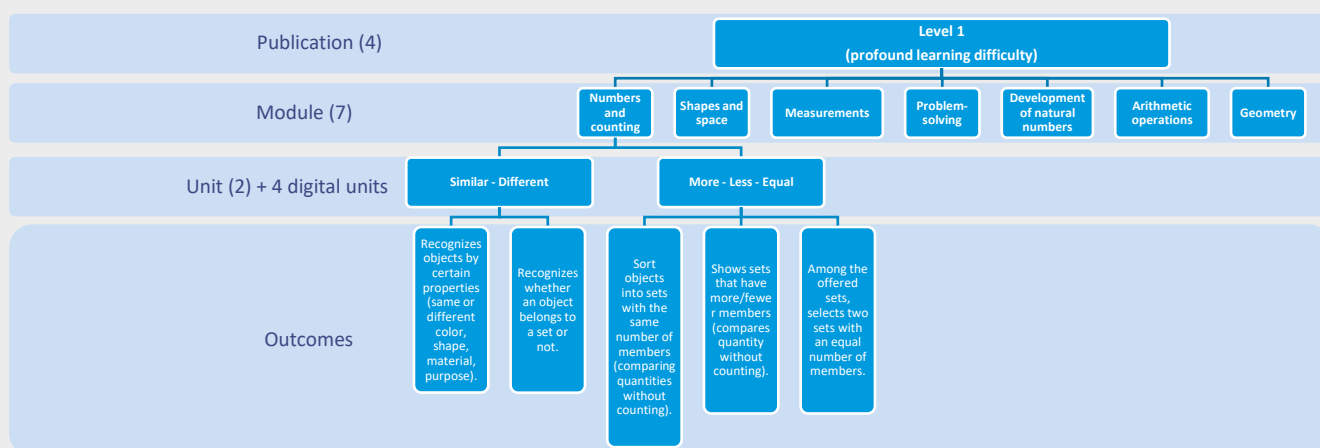
Authors have the flexibility to decide on the number of digital units they will create, but they must meet the minimum requirement of producing 4 units within one package.

Language: English
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Develop detailed scenarios and outlines for the digital educational content/Initial content creation:

- Structure the content across the 4 levels of learning difficulty: profound, severe, specific, and moderate.
- Ensure that the content aligns with the learning objectives of the project documents (Programme Analysis and Framework document) to enhance mathematical and digital competences.
- Ensure interactivity. Interactive elements and tasks are essential as they keep children engaged and make learning fun. These elements should incorporate mathematical problems and challenges, such as puzzles, number sequences, and basic arithmetic operations. For instance, an element might involve matching numbers with corresponding quantities of objects or solving simple addition and subtraction problems to progress to the next level (in line with the Framework document).
- The content should offer various levels of difficulty to cater to the diverse capabilities of the children. This means starting with very basic concepts and gradually increasing in complexity as the child progresses. For instance, a math could start with recognizing and counting numbers and then move on to sorting numbers from largest to smallest, completing sequences with missing numbers, or something in the direction of mathematical communication: which number is one greater; which number continues the sequence; which of the missing numbers in the sequence is the smallest, etc., ensuring that the child fully understands each concept before moving on to the next level of achievement of outcomes that are given in the Framework document (four in total). Any element/digital component could be used in various ways. The authors should creatively maximize the use of each element to ensure child engagement and curiosity.
- Visual and auditory aids should also be prominently used. Many children with developmental difficulties benefit from visual learning, so incorporating appropriate colorful, engaging visuals can help them grasp concepts better. Additionally, auditory instructions and feedback can support those who may have difficulties with reading or processing written information. For example, a math problem could be read aloud, and the child could be prompted to respond by clicking on the correct answer.

- To foster digital competence, the content should include activities that involve basic computer skills. This could range from simple tasks like clicking and dragging to more complex ones like typing numbers or solving problems using a digital interface. These activities not only improve their math skills but also familiarize them with using technology.



Peer review:

- Every digital unit (as a package) must undergo a peer review process organized among the authors. Each author must review at least one unit created by another author.
- The goal of peer review is to ensure that the content meets the project's standards for quality, relevance and inclusivity.

Inclusivity expert review – phase 1

- Go through the course scenario and identify whether inclusivity standards are fulfilled.

Content revision post-review:

- Revise and improve the content based on feedback received during the peer review.
- Finalize the content after incorporating peer review suggestions.

Content manager involvement (editor) and start of creating digital educational materials:

Once the content and scenarios have gone through peer review and are finalized, the process of creating the digital educational materials will commence. This stage requires close collaboration between the authors, editors, and content managers to ensure the highest quality of materials.

Responsibilities and Activities:

- Authors will work closely with the content management team to bring their scenarios and outlines to life. This involves regular communication and feedback sessions to ensure that the digital content aligns with the project's educational goals and standards. Authors, editors, and content managers will coordinate to integrate feedback and make necessary adjustments.
- The content manager will oversee the organization of the digital materials. This includes ensuring that the content follows a logical structure, is easy to follow, and progresses in a way that supports learning at different levels of difficulty. The content manager will also ensure that all elements are cohesively presented, making the learning experience seamless.
- The content manager and editor will ensure that the digital materials are accessible to all learners, including those with disabilities. This involves implementing features such as text-to-speech, adjustable font sizes, and other accessibility tools. The goal is to make the content usable by a diverse range of students, addressing various needs and learning preferences.
- To keep children engaged and motivated, the content must be interesting and interactive. The content manager will help integrate interactive elements and multimedia, such as videos, animations, and quizzes, into the digital materials. These elements should be designed to captivate the learners' attention and make learning enjoyable. Engaging content helps in maintaining the interest and participation of students, making the educational process more effective.
- The editor will ensure that the digital content is easy to navigate. This includes creating a user-friendly interface with clear instructions and intuitive design. The goal is to make it easy for children and teachers to move through the content, find what they need, and stay focused on their learning tasks. Effective navigation helps in reducing frustration and confusion, thereby enhancing the learning experience.

Inclusivity expert review – phase 2

- Go through the developed digital materials, identify whether inclusivity standards are fulfilled and suggest changes in digital materials.

Proofreading and Translation

- Content will be translated via machine translation to all project partner languages (Bulgarian, Croatian, German, Icelandic, Norwegian) and checked by local partners/authors for any language errors.

Contributing to evaluation criteria of digital educational materials

We highly value the input and insights of our authors in establishing evaluation criteria for the digital educational materials, especially for the pilot phase of the project. Your expertise and experience are crucial in ensuring that the content we create is of the highest quality and meets the diverse needs of our learners.

Responsibilities and Activities:

- **Input and Insights:** Authors are expected to provide valuable input and insights based on their expertise in special education and digital content creation. This involves sharing knowledge about what works best in engaging and educating children with intellectual disabilities.
- **Developing Evaluation Criteria:** Authors will collaborate with the project team to help develop comprehensive evaluation criteria for digital educational materials. These criteria will be used to assess the effectiveness, relevance, and inclusivity of the content during the pilot phase.
- **Pilot Phase Preparation:** By contributing to the evaluation criteria, authors help ensure that the materials are well-prepared for the pilot phase. This preparation includes identifying key indicators of success and potential areas for improvement.
- **Feedback Integration:** Authors will work with the project team to integrate feedback from the pilot phase into the final evaluation criteria. This iterative process helps refine the materials and ensures they are tailored to meet the needs of our target audience.

Specific Contributions May Include:

- **Defining Quality Standards:** Establishing what constitutes high-quality digital educational content, including aspects like clarity, engagement, interactivity, and accessibility.
- **Identifying Key Metrics:** Determining the metrics that will be used to measure the success of the educational materials, such as student engagement, learning outcomes, and ease of use.
- **Creating Evaluation Tools:** Helping to develop tools and methods for evaluating the digital content, such as surveys, observation checklists, and feedback forms.
- **Pilot Testing Participation:** Actively participating in the pilot testing phase by observing how students interact with the materials and gathering feedback from educators and learners.

Post-Pilot Content Revision

- **Revise and Improve:** Authors will revise and improve the content based on feedback and results from the pilot testing phase. This step ensures that any issues or areas for improvement identified during the pilot are addressed.
- **Final Optimization:** Ensure that the final content is fully optimized for the target audience, specifically children with intellectual disabilities aged 5-10. This involves making adjustments to better meet their learning needs and preferences.

Ongoing Support and Updates During the Project Duration

- **Continuous Support:** Provide continuous support and updates to the digital educational content as needed throughout the project duration. This includes making ongoing improvements and ensuring the content remains up-to-date and relevant.
- **Engagement with Project Team:** Stay engaged with the project team and respond to any emerging needs or changes. This collaborative approach helps ensure that the project adapts to new challenges and opportunities as they arise.
- **Expert Advice:** Provide expert advice on the development of digital educational content. Your ongoing contributions and insights will help maintain the high quality and effectiveness of the materials throughout the project lifecycle.

Other requirements:

- Please send us your CV by September 1st, 2024.
- Compensation: for each completed package of 4 units (one unit for each level of learning difficulty) compensation of 2,000.00 € net is envisaged.
- Payment will be made in two parts:
 - 80% after the completion of creating digital educational content in IZZI and preparing materials for the piloting session in schools.
 - 20% after the content revision, once the evaluation process following the piloting phase is finished.
- With each author a contract will be signed.
- During the contracting and/or payment process, it may be necessary to obtain the required documents in accordance with Croatian laws.

Contact Information:

If you meet the criteria above and are passionate about contributing to a project that aims to enrich inclusive education for children with intellectual disabilities, we would love to hear from you. Please contact us for more information and to express your interest on e-mail: nola.santini@profil-klett.hr.

More about the project: <http://atolloproject.eu/>