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Kilimanjaro VET-project: Open Badges



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CONTENT

CONTENT	1
1. Introduction	3
2. Implementation and Piloting of Open Badges	4
3. Overview of the open badges we developed in the Kilimanjaro VET Project	5
3.1. Special Educational Needs in VET	5
3.2. Understanding and Applying Functional Capacity in Education	5
3.3. RUORI Assessment Method.....	5
3.4. Pedagogical Methods Supporting Functional Capacity in VET.....	5
Annex: Description of the open badges	7
1. Special Educational Needs in VET	7
Keywords	7
Badge Description	7
Criteria	7
Demonstrating Skills / Required Evidence	7
Learning Resources	7
Recommended Online Resources	7
2. Understanding and Applying Functional Capacity in Education	8
Keywords	8
Badge Description	8
Criteria	8
Demonstrating Skills / Required Evidence	8
Study the ICF framework and apply it in your work.....	8
Describe one student's functional capacity using the ICF model without identifying information.	8
Present your findings in a one-page summary.....	8
Learning Resources	8
Recommended Online Resource:.....	9
3. RUORI Assessment Method.....	9
Keywords	9
Badge Description	9
Criteria	9
Demonstrating Skills / Required Evidence	9
Learning Resources	9



Recommended Online Resources	9
4. Pedagogical Methods Supporting Functional Capacity in Vocational Education	10
Keywords	10
Badge Description	10
Options	10
Learning Resources	10
Recommended Online Resources	11

1. Introduction

Open badges are concrete proof of competence in an electronic format. They promote continuous learning and are built on the idea of competence-based learning. The badge system recognises formal, non-formal and informal learning, so it does not matter how and where competence is acquired.

Open badges can be awarded automatically when integrated into different systems but also based on an application demonstrating competence. In addition to the competence objectives and assessment criteria, the various tasks in the badge application guide the applicant to assess their own performance and understand their own competence. It is also possible to attach proof or evidence of competence to the open badge.

Open badges make competence visible to others. It is therefore important that the badge is visually appealing, informative, and contains detailed information about the issuer of the badge. Competence badges support the recognition and acknowledgment of competence acquired in diverse ways, so in addition to educational institutions, companies and organizations also award badges.

The structure of open badges when applying.

- some key words
- objectives
- evaluation criteria
- evidence, how to prove competence.
- Instructions on how to apply for the open badge.

In the Kilimanjaro VET project, open badges were developed as part of Work Package 5, WP5, to strengthen the skills of vocational education and training, VET teachers in Tanzania. The goal was to help teachers better support students with special educational needs and to show their skills with open badges.

These open badges are not only a form of professional recognition but also tools for reflection and continuous improvement. They were developed in close cooperation with the Kilimanjaro VET project team and teachers from participating Tanzanian VET colleges. The teachers piloted the badges in real situation with their students ensuring that the content is relevant.

The topics covered in open badges were introduced by Tanzanian teachers. In the project we included Open Badges in teacher training module on special needs. The aim of the project was to create more inclusive and supportive learning environments, especially for students who face learning challenges.

The Kilimanjaro VET badge system includes modules on recognizing learning support needs, understanding functional capacity using the International Classification of Functioning Disability and Health, ICF framework by World Health Organisation, WHO, applying the RUORI assessment method, and using inclusive teaching strategies. The RUORI assessment method is developed at Luovi Vocational College in Finland.

Benefits of open badges

- Open badges make it easy to show competence which is acquired in diverse ways.
- Completing open badges enables smooth transitions between studies, when moving into working life, and during one's career.
- Open Badges are motivating and voluntary.
- They are regardless of time and place of gaining competence.
- Badge holders that are individuals, manage their own competence and open badges.
- Open badges show the concrete skills that the badge holder has, for example, it helps employers to see competence in a very concrete way.
- Open Badges are especially useful for supporting lifelong learning and professional growth, particularly in situations where traditional certificates may not be available or suitable. Open Badges are easy to incorporate into a learning portfolio or share as a digital CV.

Digital open badges are digital credentials, created and issued by organisations such as schools, vocational organisations, companies and employers for their students, members, staff, clients or partners. Each open badge is associated with an image and information about the badge, its recipient, the issuer, and any supporting evidence. In Kilimanjaro VET project the images are in green color.

2. Implementation and Piloting of Open Badges

The Kilimanjaro VET project introduced open badges through a structured pilot program in vocational schools in Tanzania. The main goal was to include the badge system in teacher training, helping teachers build skills in inclusive education through practical and locally relevant learning experiences.

The pilot started with orientation sessions where teachers learned about the system of open badges, the learning goals, and how their progress would be assessed. These sessions focused on real-life application, encouraging teachers to try out new methods in their classrooms and reflect on what they learned.

Each badge module was completed over a set period. Teachers studied learning materials, joined discussions, and completed tasks to show their competence. They submitted their work in different formats, such as written reports, presentations, or videos. The teachers were able to choose how to show their competence. Teachers also worked together in groups.

The project trainers from Finland and local coordinators from Tanzanian VET colleges supported teachers throughout the process. We organised regular feedback sessions to gather ideas, solve problems, and improve the badge content and delivery. The way of working made sure the process stayed relevant to the needs of the teachers and the local school environment.

Both workshops in Tanzania and online webinars were crucial when developing the badges. Planning together, developing the content and sharing of experiences between project partners and local teachers were important steps to finalise the open badges.

During the pilot phase we also tested how the system could work in areas with limited digital tools. The system as such, that is, the criteria, tasks and related documents and offline videos worked out well, but building the badge system only on online was not the solution at this point due to infrastructure and access to stable internet connections.

In brief, the pilot showed that open badges as micro credentials can help teachers to improve their skills in inclusive education and to show their skills. We also learned that there is a need for more professional development and project partners got useful insights for planning future staff training. Moving to a fully digital badge system will still require further development at both local and national levels.

The open badges can be used as a tool for teachers' professional development either working independently or in groups with other teachers.

3. Overview of the open badges we developed in the Kilimanjaro VET Project

We created a modular Open Badge system to help vocational teachers identify and support students with special educational needs. Each badge focuses on a specific skill area and includes clear learning objectives, assessment criteria, and requirements for demonstrating competence.

3.1. Special Educational Needs in VET

This badge helps teachers recognize students who need extra support and understand how to provide it effectively in vocational education and training. Teachers show their competence by identifying support needs in their own classrooms and reflecting on suitable strategies.

3.2. Understanding and Applying Functional Capacity in Education

This badge introduces the concept of functional capacity and the ICF framework. Teachers use this model to assess students' learning needs and design personalized support strategies.

3.3. RUORI Assessment Method

Based on the ICF framework, the RUORI method helps teachers assess students' functional capacity and educational needs. Teachers carry out both self-assessments and student assessments and use the results to guide their teaching.

3.4. Pedagogical Methods Supporting Functional Capacity in VET

This meta-badge focuses on applying inclusive teaching strategies in one or more of the following areas:

- 1 Managing and guiding students with challenging behaviour
- 2 Supporting students' mental health
- 3 Using alternative communication methods
- 4 Supporting students with learning difficulties

Teachers apply selected strategies in their own classrooms and document their experiences and reflections.

Each badge is earned through a combination of theory and practice. Teachers submit evidence, such as reports, presentations, or videos, to show what they have learned and how they have applied it. Learning materials include lectures, readings, videos, and podcasts, offering a rich and varied learning experience.

The open badges and learning materials are available at Kilimanjaro VET web page [Kilimanjaro VET – Capacity Tanzania](#).

Annex: Description of the open badges

1. Special Educational Needs in VET



Keywords: Special educational needs, support

Badge Description:

The badge holder can identify students who need special support and knows how to provide it in vocational education and training (VET) settings.

Criteria:

The badge holder can:

- Identify students who need special support in vocational studies.
- Understand the importance of special support in vocational education.
- Know different ways to support students.

Demonstrating Skills / Required Evidence:

Practice identifying and recognizing the need for special support in your work environment.

Reflect on:

- What kinds of support needs do students have?
- What methods are available to identify these needs?
- What special support is available?
- Why is special support important?

Document your answers and reflections in a report in Word, PowerPoint, or video.

Learning Resources:

- Lecture materials: [Special Educational Needs \(SEN\)](#)
[Methods for supporting students with special needs](#)
- Literature:
Hallahan, D. P., Kauffman, J. M., & Pullen, P. C. (2022). Exceptional learners: An introduction to special education (14th ed.). Pearson Education. ISBN: 9780137519811

Komba, S. C. (2011). Introduction to special education: A textbook for education students. LAP Lambert Academic Publishing. ISBN: 9783846553141

Recommended Online Resources:

[Understanding 10 Types of Disabilities in Special Education - Education And Academy](#)

[The TRUTH About Special Educational Needs](#)

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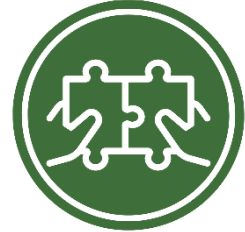
[Students Learning Difficulties \(English #podcast\) #specialeducation](#)

2. Understanding and Applying Functional Capacity in Education

Keywords: Functional capacity, ICF classification, assessment

Badge Description:

The badge holder understands the concept of functional capacity and its impact on student learning. They are familiar with the ICF classification and know how to assess functional capacity in educational contexts.



Criteria:

The badge holder:

- Understands the concept of functional capacity and its impact on learning.
- Knows the ICF classification and how to apply it in education.
- Knows assessment methods for functional capacity and their role in individual education planning.

Demonstrating Skills / Required Evidence:

Study the ICF framework and apply it in your work.

Describe one student's functional capacity using the ICF model without identifying information.

Present your findings in a one-page summary.

Learning Resources:

- Lecture materials: [ICF theory](#)
- WHO ICF framework and biopsychosocial model: [ICF Case Studies - The Integrative Bio-psycho-social Model of Functioning, Disability and Health](#)
- Literature

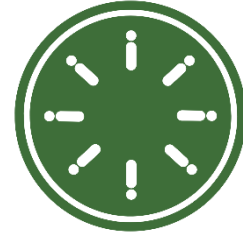
World Health Organization. (n.d.). *ICF practical manual: A guide for the use of ICF*. Draft version. Retrieved from https://cdn.who.int/media/docs/default-source/classification/icf/drafticfpracticalmanual2.pdf?sfvrsn=8a214b01_4&download=true

World Health Organization. (2023). ICF Red Book: International Classification of Functioning, Disability and Health. Retrieved from https://icfeducation.org/wp-content/uploads/2023/09/ICF_English-Red-Book.pdf

Recommended Online Resources:

[International Classification of Functioning, Disability and Health \(ICF\)](#)

3. RUORI Assessment Method



Keywords: Assessment, functional capacity, ICF classification

Badge Description:

The badge holder understands and uses the RUORI assessment method to evaluate students' functional capacity and educational needs in VET.

Criteria:

The badge holder:

- Understands the RUORI method and its use in assessing functional capacity.
- Uses RUORI to support students.
- Applies assessment results in teaching.
- Identifies students' study skills and suitability for VET.

Demonstrating Skills / Required Evidence:

Conduct a self-assessment using RUORI tools.
Then assess three students and reflect on how to use the results in teaching.
Summarize your findings in a one-page written report, please no identifying information.

Learning Resources:

- Lecture materials: [RUORI Assessment Tool](#)
[RUORI assessment Form](#)
- Literature: [RUORI - Resource-oriented tools for the assessment and description of functioning](#)

Recommended Online Resources:

- [RUORI Assessment Tool - Ammattiopisto Luovi](#)

4. Pedagogical Methods Supporting Functional Capacity in Vocational Education



Keywords: Pedagogy, inclusive education, functional capacity

Badge Description:

This meta-badge includes four pedagogical themes. The badge holder selects three to study and apply in their teaching.

Options:

1. **Managing and Guiding Students with Challenging Behavior**
 - Recognises and uses pedagogical methods to prevent and manage challenging behaviour.
 - **Evidence:** Report on piloting methods in your classroom.
2. **Supporting Students' Mental Health**
 - Understands and applies strategies to support mental well-being.
 - **Evidence:** Summary slide based on video observation or peer lesson.
3. **Alternative Communication Methods**
 - Uses visual and alternative communication in teaching.
 - **Evidence:** Create and document a visual learning environment or instruction.
4. **Strategies to Support Students with Learning Difficulties**
 - Identifies learning difficulties and applies support strategies.
 - **Evidence:** Report on implementation and reflection.



Learning Resources:

- Lecture materials: [Challenging Behavior](#)
[Best Practices for Supporting Students with Learning Disabilities in Vocational Education](#)
[ACC-Communication](#)
[How to support student mental health](#)

Recommended Online Resources:

Learning Difficulties and Their Support

Learning Disabilities Association of America, Support and Resources for Educators – Learning Disabilities Association of America:

<https://ldaamerica.org/educators/?audience=Educators>

Understood. Understood - For learning and thinking differences

<https://www.understood.org/>

Porta, T. & Todd, N. (2024). The impact of labelling students with learning difficulties on teacher self-efficacy in differentiated instruction - Journal of Research in Special Educational Needs - Wiley Online Library

<https://onlinelibrary.wiley.com/doi/10.1111/1471-3802.12642>

Supporting Student Mental Health and Wellbeing

Council for Exceptional Children. A Guide for Teachers: How To Improve Mental Health in School <https://exceptionalchildren.org/blog/guide-teachers-how-improve-mental-health-school>

Mental Health America. Mental Health Learning Hub

<https://www.mhanational.org/mental-health-education>

Meeting and Supporting Youth with Challenging Behavior

Center on PBIS. Supporting and Responding to Students' Social, Emotional, and Behavioral Needs: Evidence-Based Practices for Educators

<https://www.pbis.org/resource/supporting-and-responding-to-behavior-evidence-based-classroom-strategies-for-teachers>

Virtual Lab School. Supporting Children with Challenging Behaviors

<https://www.virtuallabschool.org/focused-topics/supporting-children-with-challenging-behaviors>

Alternative Communication Methods

Visual Supports within an Inclusive Learning Environment (2024) <https://ncse.ie/wp-content/uploads/2024/10/NCSE-Visual-Supports-Environment-Resource-01.pdf>

Augmentative and Alternative Communication in Classrooms: Special Education Teacher Competences <https://files.eric.ed.gov/fulltext/EJ1254458.pdf>