

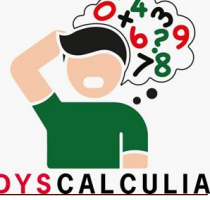
Dyscalculia

WP2: Contents for Dyscalculia Curriculum and Course Material

Prof. Dr. Marc Beutner
Helene Lindenthal



WP2: Contents for Dyscalculia Curriculum and Course Material



1. Content for Dyscalculia Curriculum
2. Course Material
3. Scheduling and activity plan
4. Discussion



WP2: Contents for Dyscalculia Curriculum and Course Material



Dyscalculia Curriculum

Teaching

Learning

Target groups:
- teachers
- academicians at universities and education faculty students
- dyscalculic students and their families

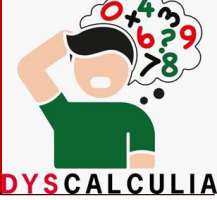
Modules:

1. Development of key competences
2. Diagnosis processes of dyscalculic individuals in normal education environments
3. Teaching methods and techniques on the education of students with different learning levels
4. Inclusiveness in all areas of education and training

Course Material:
- ppt
- text
- video
- quiz

- innovative approaches
- different approaches and practices
- activity examples

1. Content for Dyscalculia Curriculum



4 Modules

1. Development of key competences
2. Diagnosis processes of dyscalculic individuals in normal education environments
3. Teaching methods and techniques on the education of students with different learning levels
4. Inclusiveness in all areas of education and training



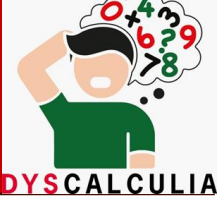
1. Content for Dyscalculia Curriculum

Module 1

Development of key competences

- Develop key competences as a teacher
- Increase teaching skills
- Develop professional skills
- Develop methodological competencies in order to use different approaches and practices, activity examples, teaching methods and techniques on the education of students with different learning levels
- Developing the capacity of educators

1. Content for Dyscalculia Curriculum



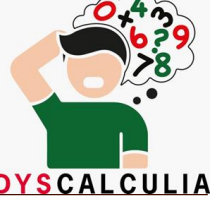
Module 1

Development of key competences

Knowledge	Skills	Competences
<ul style="list-style-type: none">• Knowledge of key competences for teachers of dyscalculic students.• Knowledge of different teaching approaches and practices for students with different levels of learning.• Awareness of the importance of ongoing professional development for educators.• Familiarity with the needs and challenges of students with varying levels of learning.• Understanding of the role of methodological competencies in effective teaching.	<ul style="list-style-type: none">• Teaching Skills: Proficiency in planning and delivering effective lessons.• Professional Development Skills: The ability to engage in ongoing learning and improvement.• Methodological Competency: Proficiency in choosing and applying appropriate teaching methods and techniques for different learning levels.• Adaptability: The skill to tailor teaching methods to suit the needs of students with varying learning levels.	<ul style="list-style-type: none">• Pedagogical Competence: The ability to develop and implement teaching strategies that align with educational goals and meet the needs of diverse learners.• Collaboration Competence: The ability to work effectively with colleagues, parents, and stakeholders to enhance the educational experience for students.• Communication Competence: The ability to effectively convey information and engage with students, other teachers and families.



1. Content for Dyscalculia Curriculum



Module 2

Diagnosis processes of dyscalculic individuals in normal education environments

- Know and apply diagnostic procedures
- Know tests and their contents and purposes
- Adapt the selection of diagnostic procedures to the learning group

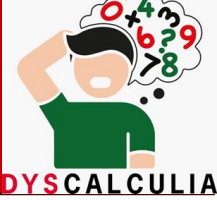
1. Content for Dyscalculia Curriculum

Module 2

Diagnosis processes of dyscalculic individuals in normal education environments

Knowledge	Skills	Competences
<ul style="list-style-type: none"> • Knowledge of diagnostic procedures for identifying dyscalculia. • Knowledge of diagnostic tests, their contents and purposes. • Understanding of the adaptability of diagnostic procedures to the learning group. • Understanding of the factors and criteria involved in diagnosing dyscalculia. • Knowledge of the characteristics and common indicators of dyscalculia in students. 	<ul style="list-style-type: none"> • Diagnostic Skills: The ability to effectively apply diagnostic procedures to identify dyscalculic individuals. • Test Familiarity: Proficiency in using and interpreting various assessment tools for mathematical abilities. • Adaptation Skills: The capacity to tailor the selection of diagnostic procedures to match the specific needs and characteristics of the learning group. • Data Interpretation Skills: The skill to analyze assessment results and draw meaningful conclusions about a student's mathematical abilities. 	<ul style="list-style-type: none"> • Assessment Competence: The ability to choose and administer tests while understanding their contents and purposes in the context of dyscalculia diagnosis. • Interpretation Competence: The capacity to interpret assessment results accurately and make informed decisions regarding intervention or support. • Collaboration Competence: The ability to collaborate with colleagues, parents, and specialists to develop appropriate strategies and interventions for dyscalculic students within the regular educational environment. • Communication Competence: The ability to communicate diagnostic findings to relevant stakeholders, such as educators, parents, and support services.

1. Content for Dyscalculia Curriculum



Module 3

Teaching methods and techniques on the education of students with different learning levels

- Education according to learners individual differences in normal education classes
- Examples of activities that teachers can apply in their daily lesson activities
- Practical applications
- Innovative applications
- Involve and motivate students
- Provide modernization of teachers' teaching styles
- Covering the different types of activities a teacher can use to change their teaching skills
- Prepare training programs in accordance with individual differences

1. Content for Dyscalculia Curriculum

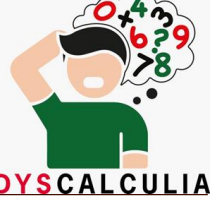


Module 3

Teaching methods and techniques on the education of students with different learning levels

Knowledge	Skills	Competences
<ul style="list-style-type: none">• Understanding of various teaching methods and techniques tailored to the education of students with different learning levels.• Knowledge of strategies for educating students based on their individual differences in regular classroom settings.• Familiarity with a range of activity examples suitable for daily lesson plans, addressing students' varying needs.• Awareness of practical and innovative teaching applications.• Knowledge of modernization concepts related to teaching styles.• Understanding of the importance of motivation and engagement in student learning.• Knowledge of how to create training programs that accommodate individual differences.	<ul style="list-style-type: none">• Instructional Skills: Proficiency in employing effective teaching methods and techniques for students with different learning levels.• Differentiation Skills: The ability to adapt instruction according to students' individual differences within a standard classroom.• Activity Design Skills: Competence in creating engaging and purposeful activities for daily lessons.• Practical Application Skills: The capacity to implement teaching methods in real classroom settings.• Innovation Skills: The ability to introduce creative and novel approaches to teaching.• Motivational Skills: Skill in motivating and engaging students in the learning process.• Modernization Skills: The capability to update and improve teaching styles and methods.	<ul style="list-style-type: none">• Pedagogical Competence: The proficiency to choose and apply appropriate teaching methods and techniques that cater to diverse learning levels.• Differentiation Competence: The skill to adapt instruction to the unique needs and abilities of each student in a regular classroom.• Program Development Competence: The skill to create training programs that accommodate individual differences and promote effective teaching practices.

1. Content for Dyscalculia Curriculum

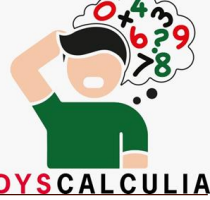


Module 4

Inclusiveness in all areas of education and training

- Ensure the social integration of dyscalculic students and facilitate their adaptation to the classroom environment
- How to develop strategies to improve the quality of school education
- Develop strategies to improve the education quality of the school on the basis of inclusive and inclusive practices in education





1. Content for Dyscalculia Curriculum

Module 4

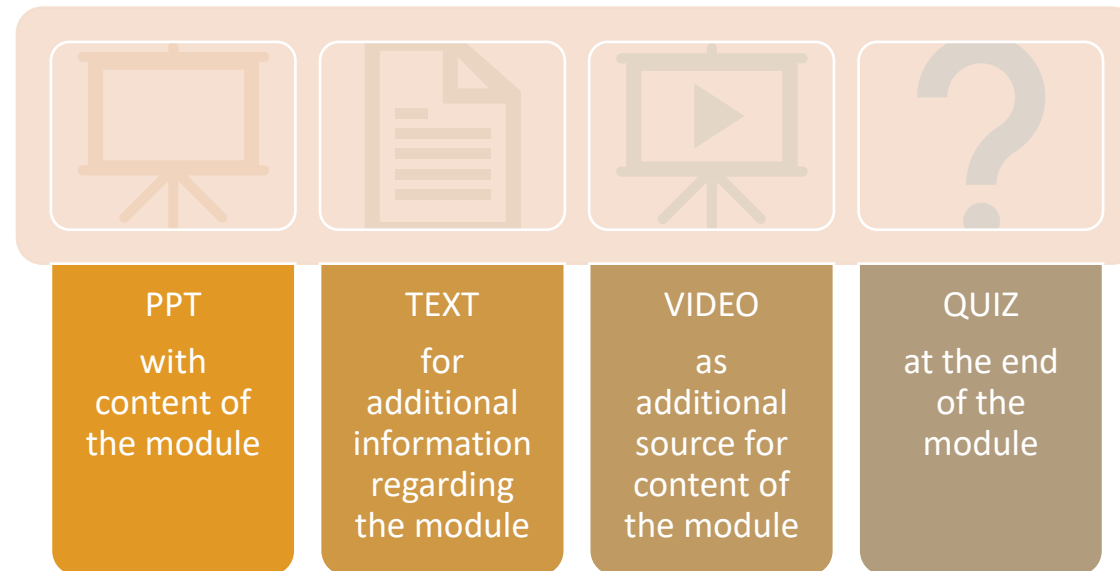
Inclusiveness in all areas of education and training

Knowledge	Skills	Competences
<ul style="list-style-type: none">• Understanding of the principles and importance of inclusiveness in all aspects of education and training.• Knowledge of the challenges faced by dyscalculic students in terms of social integration and classroom adaptation.• Awareness of the factors that contribute to the quality of school education.• Familiarity with inclusive practices in education and their role in enhancing educational quality.	<ul style="list-style-type: none">• Social Integration Skills: Proficiency in facilitating the social integration of dyscalculic students and helping them adapt to the classroom environment.• Strategic Development Skills: The ability to develop strategies aimed at improving the overall quality of school education, with a focus on inclusiveness.• Inclusive Education Strategy Skills: Competence in designing and implementing strategies that promote inclusive practices and enhance educational quality.	<ul style="list-style-type: none">• Inclusive Education Competence: The proficiency to ensure that education and training are inclusive in all areas, fostering an environment where every student, including dyscalculic students, feels welcome and supported.

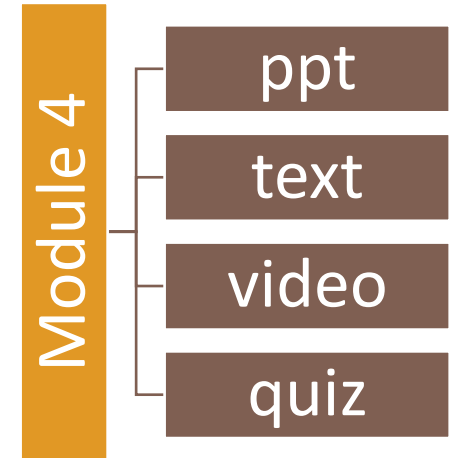
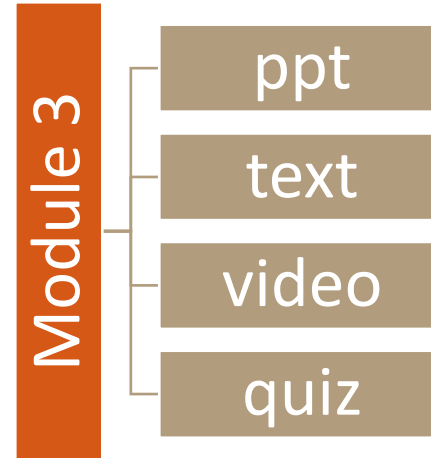
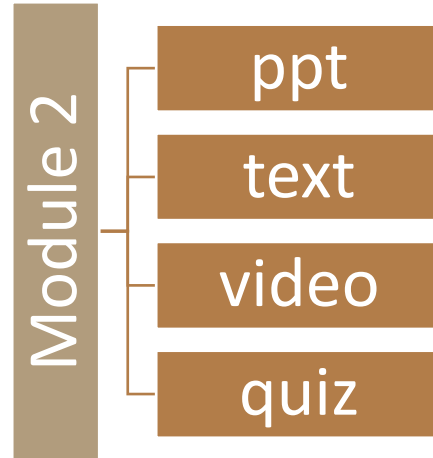
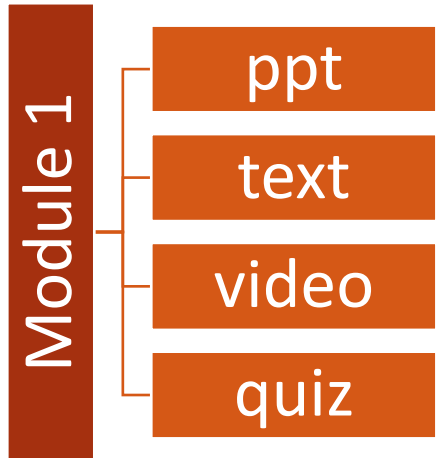
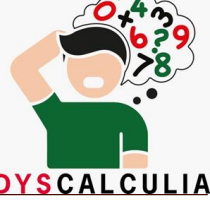


2. Course Material

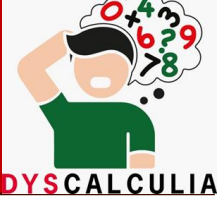
- The course materials are designed for the Dyscalculia Curriculum and Dyscalculia students.
- Course materials will be produced especially for the dissemination of the project to large masses and the use of its results in education systems.
- Content to be used for teacher training will be developed within the course materials.
- Each course material for the 4 Modules includes: ppt (max. 20 slides), text (link), short video (link), quiz (4 questions)



2. Course Material



3. Scheduling and activity plan



Module 1: Development of key competences	UPB
Module 2: Diagnosis processes of dyscalculic individuals in normal education environments	Çukurova Ilce Milli Egitim Mudurlugu
Module 3: Teaching methods and techniques on the education of students with different learning levels	Panevezio „Zemynos“ progimnazija
Module 4: Inclusiveness in all areas of education and training	Çukurova Üniversitesi



3. Scheduling and activity plan



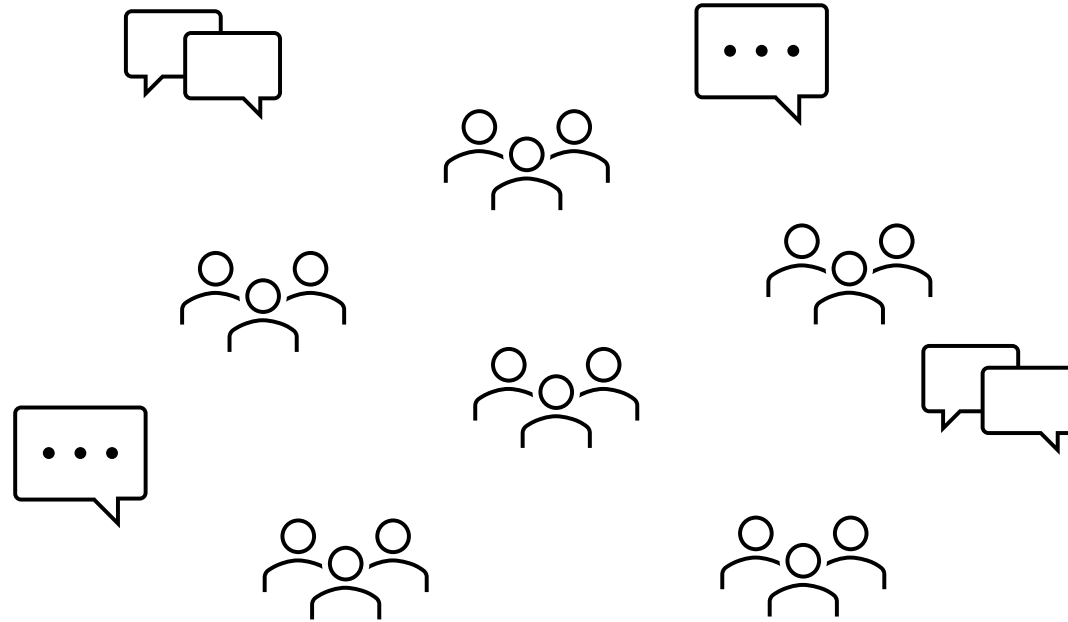
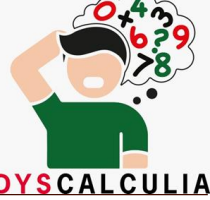
				2024										
				Nov	Dec	Jan	Feb	Mar						
				M3	M4	M5	M6	M7	M8	M9	M10	M11		
WP2 DEVELOPING CURRICULUM AND COURSE MATERIALS	a2.1	Kick Of Meeting	Cukurova MEM			TPM1								
	a2.2	LTT- Dyscalculia Curriculum and Course Material Development Training	Spain						LTT					
	a2.3	Assessment of Current Situation Analysis for Curriculum	Cukurova MEM											
	a2.4	Determination and Academic Preparation of Dyscalculia Education Content	University of Paderborn											
	a2.5	Print Edition of Curriculum and Course Materials	Cukurova University											



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



4. Discussion



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Contact



Warburger Str. 100
DE-33098 Paderborn
Web www.uni-paderborn.de/en

Prof. Dr. Marc Beutner

Professor and Head of Chair of Business and
Human Resource Education II
Faculty of Economics

Office Q1.441

Telephone +49 5251 60-2367

E-Mail marc.beutner@uni-paderborn.de

Helene Lindenthal

Research Assistant
Faculty of Economics
Chair of Business and Human Resource
Education II

Office Q1.451

Telephone +49 5251 60-5010

E-Mail helene.lindenthal@uni-paderborn.de



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Co-funded by
the European Union