INTELECTUAL OUTPUT 1

DEVELOPMENT OF A COMPETENCE MATRIX FOR TEACHERS IN ADULT BASIC EDUCATION

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1. Introduction

Bridging Barriers is a two-and-a-half-year project funded by the European Union Erasmus+ framework, bringing together researchers, teachers and representatives of course providers from Austria, Italy, Slovakia, and Switzerland. The project's aims include the development of a competence matrix, a further education curriculum and the implementation of pilot courses for teachers active in Adult Basic Education (ABE). By these activities, the project intended to enhance the professionalism of educators in this field.

Adult Basic Education (ABE) forms a vital part of adult education, allowing adults to improve their basic skills in reading, writing and calculating as well as in using IT in professional and everyday life. In addition, ABE is supporting migrants who have received only rudimentary education prior to their move to acquire good skills in the use of the language of the receiving country.

ABE is organized in different ways across Europe, reflecting different historical pathways, institutional environments and policies. Teachers in ABE have entered the field based on a diverse set of educational credentials, professional experiences and competences. Skills crucial for successfully helping adults to acquire basic skills are typically not described in a systematic manner.

This is where the Bridging Barriers project comes in by its aims to contribute to the development of higher levels of professionalism of ABE teachers in Europe. The project aims at developing new approaches for making visible and systematising the specific skills and competences applied in this field, thereby supporting the development of a European profile of ABE teachers' competences while also enhancing networking among teachers in the field.

The core outcomes of the project include

- a competence matrix of skills used by ABE teachers in delivering Adult Basic Education, applying an established approach (VQTS) for the development of such a matrix (IO1),
- the current curriculum for a train-the-trainer course for ABE teachers targeting their skills in helping students with overcoming learning barriers (IO2),
- a handbook summarising the project's achievements and supporting the implementation of pilot courses modelled on the developed curriculum (IO3).

1.1 Methodology

This document reflects the key results of the first part of the project (IO1). It summarises the approach followed, the process on how the competence matrix was developed and a final version of the competence matrix including the results of the discussions held at various stages of the project. The competence matrix was developed following the VQTS approach (Luomi-Messerer, 2009; Luomi-Messerer and Markowitsch, 2006; Markowitsch, Becker, Spöttl and Luomi-Messerer, 2008) and describes competences of educators according to core work tasks ('competence areas') and their progress of competence development ('steps of competence development'). This description of competences is based on information on the work processes of educators in the field of ABE gathered in 45 in-depth semi-structured qualitative interviews in four countries – Austria, Italy, Slovakia and

Switzerland – in spring and summer 2020. All interviews were conducted online and in a slightly extended period of time compensating the obstacles met during repeated lockdowns and the pressure lying on the field of adult education due to the emerging Covid-19 pandemic. The interviews with ABE teachers built a sound base for the identification of work tasks of teachers as a structural element for the competence matrix.

In addition, information on competence development of teachers in the field, working conditions in the participating countries and reflections on the needs for further training of ABE teachers could be acquired in the interviews. Partners from all four countries contributed with case studies on the context of adult basic education in their country based on desk research and information gathered in the interviews. Based on this material, 3s with support of Il Mondo provided a first draft of the competence matrix, which was discussed at the partner meeting and in bilateral exchange. Extracts of the draft were also subject for feedback gathered in ten expert interviews that supported the validation process of the competence matrix.

During the whole progress of the project, we updated the matrix based on input gathered during the peer learning activities that took place as key parts of the planned pilot further education courses for teachers in the field in summer 2021. A final version of the matrix was drafted after the discussions in an international workshop with participants of the pilot courses and other interested teachers in autumn 2021(LTTA).

1.2 Conclusions from the development process

The invitation to consider a matrix of key competences applied in the provision of adult basic education received a mixed appraisal by practitioners in the field. While the overall intention of working towards a formal representation of the tacit knowledge of the field harvest broad support, the selected VQTS framework was often reported as being overly complex. Moreover, practitioners demonstrated partly a critical stance towards a formalised expression of what it is at the heart of their day-to-day teaching practice, the former seen as a potential tool of external control and of challenging the practitioners' autonomy. Corresponding approaches of standardisation of curricula or standards for learning outcomes were often seen as tools creating more harm than good, so the expectations linked to a formal representation of teachers' competences were not always positive.

Overall, while the suggestion of working towards the collection and exchange of the knowledge, skills and attitudes vital for the field of adult basic education receive near to unanimous support, the attempt to formally express the related competences – and even more, steps of competences development – in a formal way were often regarded as at best premature and not in line with both the current stage of development and the elementary needs of the field and the practitioners' work towards improved levels of professionalism. So, while the sketch of the matrix was welcomed as a thought-provoking experiment, a fully developed matrix was expected to be a task achievable only in the distant future, or not even a required or desirable development at all.

1.3 Composition of this document

This document aims to provide a compact overview on our activities and results in IO1 and is composed as follows: In the first part the approach taken in the Bridging Barriers project is summarised. Then, the process of designing the competence matrix is described including key questions and concerns raised in the expert interviews and the peer learning activities and their impact on the further development of the matrix, which is presented in a full version in a subsequent section.

A number of annexes completes the presentation of results and allows for close reading: Annex 1 illustrates the stepwise approach to develop the competence matrix and different rounds of feedback by completing the draft matrix from autumn 2020 with the feedback at later stages. Furthermore, the documentation of the in-depth interviews with ABE teachers (Annex 2), the summaries of the expert interviews (Annex 3) and the country case studies on ABE in the participating countries (Annex 4) are available.

2. The Bridging Barriers approach

2.1. The VQTS approach

The Vocational Qualification Transfer System (VQTS) is a model for the structured description of work-related competences and competence acquisition. It was first developed in a series of Leonardo da Vinci Projects (VQTS I and VQTS II)[1] Driver for the development of the model was the aim to increase the transparency of competences and qualifications, and consequently the mutual understanding between different countries and different contexts (for example between the area of education and the labour market or between vocational and higher education) and to make qualifications comparable with each other. The VQTS model was originally developed to support transnational mobilities in the context of the European Credit System for Vocational Education and Training (ECVET). However, a competence matrix can also be used to develop qualifications, training programmes and occupational profiles, as well as in human resource planning, mapping qualifications to qualifications frameworks or increasing permeability between VET and higher education. The core elements of the VQTS model comprise of a competence matrix, competence profiles and competence profile certificates whereof the focus in Bridging Barriers lies on the competence matrix.

A competence matrix displays work-related competence descriptions and the progress of competence development in a table. Thereby, the VQTS approach follows a broad understanding of the term competences including cognitive competences (knowledge), functional competences (skills) and social competences (behaviour) (Luomi-Messerer et al., 2006). Derived from the identified core work tasks, a number of competence areas are defined. For each competence area, between two and six competence development steps describe the competence development. However, the number of levels depends on the complexity of tasks solely and on the – from an expert practitioner's point of view – number of stages of professional development *observable* in the particular area of work. It is worth mentioning, the matrix is designed for responding to the fact that someone can already quite advanced in one particular area of work, however, is not able to master more advanced stages of professional development in others. In short, being on level 3 in competence area A does not imply the same level of professional capacity competence area B.

Soft skills and key competences are understood to be required for performing the core work tasks and are therefore not described separately as specific competence areas, yet inherent in the competence descriptions where relevant. This also implies that – while for example, high levels of interprofessional skills are required as such for all activities – it is not sufficient to have such high levels of skills, but it is required to apply these skills for complementing a specific task (e.g., sorting out a conflict within a group of learners).

The approach is guided by the idea, that for ABE teachers, the key task is to make learning possible despite participants' considerable difficulties on cognitive and psycho-social level, requiring tailored strategies for 'deliberate practice' allowing for overcoming the learning barriers in place (Hefler, Steinheimer and Wulz, 2018). This is also the specific focus for

[1] https://vocationalqualification.net/

competences covered in the Bridging Barriers competence matrix, rather than a complete sample of all competences possibly needed of teachers in the field.

2.2. The idea of ‚deliberate practice' in ABE[2]

Adult Basic Education refers to offers supporting adults' acquisition of basic skills (literacy, numeracy, ICT, local language for speakers of another language, basic knowledge as required for living in a current society and civic participation) as well as generic vocational skills required for practically any type of gainful work. However, details of the understanding differ widely between countries and contexts, so that ABE courses can include a large variety of types of courses and can address a broad variety of participants' basic skills (reading, writing, maths, digital skills but also basic vocational skills). It is clear that the competences required of teachers in the field vary with the particular focus of a given ABE programme in a local context. That means that for this project, we had to find a focus of what competences we want to investigate within the possible time frame and design.

We chose to focus on a particular set of competences that ABE teachers typically apply, when they select the right intervention in order to help learners to overcome learning barriers, that cannot be overcome by applying the usual set of methods. We summarise those barriers under three broad categories: cognitive barriers (e.g., dyslexia), psycho-social barriers (e.g., difficulties to survive in group settings) and context-related barriers (e.g., lack of motivation).

This can be demonstrated by the following example: A participant in a literacy class makes some progress in the beginning but at a certain point no further development can be observed. The material he worked with in the beginning does not seem to support his learning anymore. The learning barrier the person in the example experiences can have different reasons – the person may have a learning difficulty like dyslexia (cognitive barrier), difficulties in his personal/family life (psycho-social) or the person may have not seen the sense in learning to read because he just wants to find a job in a field where writing is not necessary in day-to-day work (context related barrier).

The key competence of the ABE teacher in such a situation can be described as a multi-step process. First, he/she will try to get the right idea of the source of the learning barrier (e.g., by asking the right questions, by doing some experimentation). Second, he/she will select a promising type of intervention, meaning that he/she will tailor an approach promising to be helpful for the particular learner. Third, he/she will learn about the outcomes of the interventions and propose further steps, either continuing a successful way forward, or trying something new in case progress is still or once again hampered. By selecting among a large variety of potential things to do, the ABE teacher, in close interaction with the learner, invents a situational approach, allowing for overcoming a specific barrier so that further progress can be made.

We use the concept of 'Deliberate Practice' (Ericsson, 2009; Ericsson, Krampe and Tesch-Römer, 1993) to capture what an ABE teacher is offering to a learner facing a particular learning barrier. The concept has been developed in the field of the development of expert

[2] A more detailed description will be available in the Handbook that summarises the outcomes of this project.

knowledge, where the learner is confronted by a learning barrier which seems to be non-penetrable in the first place (e.g., a sequence of notes within a piece of music, holding a particular challenge; a system of equations in maths; the pronunciation of a line of text in a foreign language produced by a performance artist; interpretation of an ultrasound image containing only vague hints for the presence/absence of a particular condition). The leaner himself/herself has often no idea why something is so 'beyond his/her grasp' in the first place and has no concept of how to acquire the required skills. Most importantly, investing in more exercise and doing more of the same, does not bear any rewards. However, an experienced teacher is able to guess where the particular difficulty comes from and can therefore suggest exercises allowing for 'working around' a particular barrier, so that by doing 'something different', learning will become possible, where at an earlier stage no progress seemed possible. While the teacher will experiment with various approaches until a breakthrough becomes possible, the learner will receive a tailored selection of exercises and will partake in the confidence of his/her teacher that progress is possible.

When applied to the field of Adult Basic Education, the learner experiences a learning barrier, which can be explored and be understood by the experienced ABE teacher, who can tailor a promising strategy to overcome the barrier and who will alternate strategies as long as required to reinstall progress. As participants in ABE are typically confronted with particular learning difficulties, the capacity of ABE teachers to tailor deliberate practice marks one of their key areas of competences. The concept is not only applied to difficulties classified as cognitive, but also to learning barriers classified as psychological or motivational or rooted in a poor connection between the teaching in a classroom and the participants' overall day-to-day experiences.

Contrary to the field of expert performance, where any expert has experienced similar learning barriers at early stages and has experienced his/her own teachers in providing support, today's ABE teachers often have not gone through a process, where someone has delivered 'deliberate practice' to them, so they might often be required to understand difficulties they had never experienced themselves. Overall, the approaches developed for delivering 'deliberate practice' in ABE seem to be mainly 'tacit knowledge' and acquired in a hands-on, learning-by-doing way. It is one goal of the project to make the related 'tacit knowledge' of ABE teachers visible.

3. Developing a competence matrix for teachers in ABE

3.1. Steps taken in the development of the competence matrix

For developing the competence matrix, a stepwise approach was chosen following the methodology described in the introduction. In this section, we outline how each step contributed to refining the matrix and redraws the major lines of discussions within the group and with experts.

First, interviews with teachers in the field were conducted to identify core work tasks of teachers when supporting participants in overcoming learning barriers. This was the basis for the definition of eight competence areas. For the first draft of the competence matrix, we then defined at least one sub competence for each competence area. For each sub competence the competence development was described in a number of steps that differs across competences in accordance with the complexity of the activities carried out. To allow to follow the development of the matrix and connect the defined competences and their steps of development with what can be observed in the empirical practice, we included examples from the interviews with teachers in adult basic education in this draft (see Annex 1).

After an internal feedback process with all partners, the draft competence matrix was discussed in expert interviews with educators of train-the-trainer courses for ABE teachers, experienced ABE teachers or course managers/developers. The feedback gathered in the interviews was analysed and the matrix adapted accordingly to also reflect contradictory opinions.

The feedback on the draft competence matrix was on different levels: from (1) more general remarks on the usefulness of this approach of competence descriptions, to (2) the discussion of single competence descriptions to (3) the level of wording. Remarks on level (3) were considered for reformulating the competence descriptions. In the following, some of comments on level (1) and (2) are summarised.

One interviewee (AT01) expressed the opinion that the competence matrix could be useful to support self-reflection on competences and competence needs but may also be used in teams to possibly identify areas where more support or competence development would be needed to cover all areas. Other interviewees found it harder to relate to the concept of the competence matrix in such a way but focussed more on the difficulties that may arise from an assessment or certification of the competence levels. AT02 argued against a definition of competence levels that would only serve the management of ABE providers but not the competence development that they consider happening gradually and therefore not visualisable in steps. Another interviewee added that they understand the described competence steps more as parts of a competence than ascending levels (AT03). The same expert stressed though that the description of competences is helpful to make tacit knowledge visible.

A topic repeatedly discussed during the whole process was the use of the word ‘intuitively’ as a description for teachers’ decisions on a more advanced level that build on rich experience and allow choices of methods ‘on the flow’ without much reflection in the moment or preparation. Some contributors understand the concept of ‘intuitiveness’ as something arbitrary or almost ‘esoteric’ and thereby the opposite of a competence that can

be acquired in a learning process, while others found the idea of using this notion enriching although hard to capture in any training (IT03).

Comments on specific competence areas included positive remarks on the idea of addressing competences on embedding the learning progress in the everyday context (competence area 6) and intra- and inter-professional collaboration (competence area 8)(IT01), doubts if competence areas 3-5 can be untangled despite their strong intersection (IT01), suggestions for additional competences (e.g., competence assessment of students, IT02) and remarks on drawing a line between ABE and social work when it comes to competence area 7 – support beyond the classroom (AT02).

In a final round of adaptions, where the competence matrix got its final shape, the findings from the discussions and exchange among practitioners in the peer learning activities during the pilot courses and the international workshop were incorporated. In all courses, competence development and the tacit knowledge of teachers were reflected and provided participants with a deeper understanding of competence development in their professional field. Not all of them were prepared to relate to our chosen approach of deliberate practice. The VQTS model was critically reflected in the discussions and partly questioned. There are concerns that the description of competence levels could be used to exclude practitioner from jobs in an evolving field which besides all shortcomings gains lots of strength from the fact that educators from many related fields (e.g., language teaching, other fields of adult education, social work etc.) find options for development.

Another aspect that was intensely discussed in the courses were the challenges raised by the wording of the competence descriptions. It is considered to be hard to find general descriptions without risking them to becoming empty phrases. Therefore, descriptions were often regarded to complicated and difficult to understand. This was underpinned by an exercise where a group tried to write descriptions of competences and the results turned out to be completely different and compromises hard to find.

3.2. Definition of competence areas

The following areas of competence relevant for Adult Basic Education were identified based on the research carried out within the project, including prior expertise of all participating partners. They are organised in the framework presented in the table below.

Table 1: Competence areas of teachers in ABE

Competence area 1	Designing the framework for the overall teaching and learning process
Competence area 2	Preparation of units of teaching
Competence area 3	Implementation – interaction with the group of learners (group-level)
Competence area 4	Implementation – interaction with the individual learner (one-to-one base)
Competence area 5	Implementation – Steering interaction between learners
Competence area 6	Follow-up work (embedding the learning progress in the everyday context)
Competence area 7	Support for participants beyond the classroom
Competence area 8	Interaction with other professionals (intra- and inter-professional collaboration)

Source: own description

3.3. Competence matrix

Table 2: Competence matrix

Competence area	**Steps of competence development** **Basic level**				**Expert level**
1. Designing the framework for the overall teaching and learning process	1.1 Designing the framework for the overall teaching and learning process	Is able to plan the teaching and learning process for a course in a given field of ABE and on a given skills level, following given outlines	Is able to plan the teaching and learning process for a broad variety of different fields of ABE and on different skills levels including courses with an integrated approach and adapt to the predicted composition of the learner group	Is able to design the teaching and learning process for a new type of course/new approach and implement the required leeway for responding to unknown composition of the group/unknown individual learner's needs	
2. Preparation of units	2.1 Time management	Is able to apply general principles of time management to planning of lessons	Is able to realistically predict the duration for task to base the planning on	Is able to anticipate the duration of learning processes and implement the process accordingly	
	2.2 Prepare a variation of exercises to acquire reading, writing, calculating or IT skills for unspecific (a-typical) difficulties	Is in general able to prepare suitable exercises for a presumed skills level	Is able to prepare exercises according to the relative performance of an exercise to enable learning progress	Is able to intuitively select individually promising exercises, can intuitively suggest suitable exercises for overcoming difficulties	Is able to intuitively select exercises according to learning progress and arising difficulties
3. Implementation – interaction with learners' group	3.1 Provide a variation of exercises to acquire reading, writing, calculating or IT skills for unspecific (a-typical) difficulties	Is in general able to support the performance of suitable exercises for a presumed skills level	Is able to choose/adapt exercises according to the relative performance of an exercise to enable learning progress during classes.	Is able to intuitively choose exercises and design the group dynamic teaching-learning process in such a way that learning barriers can be overcome.	Is able to intuitively apply exercises according to the learning process and continuously and actively use the group dynamic level for encouragement/ feedback; recognises learning barriers, acts in a differentiated way and invents new strategies; can provide ex-post information on the reasons for trading.
	3.2 Dealing with heterogenous skill levels, expectations and learning goals among learners	Is aware of the existence of different skill levels, expectations and learning goals and able to offer a variation of exercises and material.	Is able to assess skill levels based on the performance in class and to actively inquire expectations and learning goals in the teaching process in order to adopt to the information gathered.	Is able to design and adapt learning activities during ongoing lessons in a way that participants are addressed to a high degree according to their skill levels, expectations and goals.	Is able to design the learning activities in a way that available skills of individuals become visible and applied in mutual learning processes.
4 Implementation – interaction with individual learner	4.1 Support participants individual learning needs.	Is able to apply methods to identify the given skill level of learners and to choose appropriate material for the level	Is able to apply methods for identifying skill levels and related strength and weakness of learners and to choose appropriate material tailored to the constellations	Is able to come to achieve an individual assessment of a learner and his/her key barriers for progress and know about known strategies to support progress.	Is able to develop an individualised approach addressing key learning barriers and responding to the progress/the lack of it shown by novel approaches of support

	4.2 Build a good working relationship between teacher and learner.	Is able to empathise with individuals and understand participant's situation from his/her perspective.	Is able to communicate on a learner's strength and weaknesses, finding new sources for motivation and work out strategies for positive change based on emphatic relationship	Is able to keep a good relationship with learners, communicate strengths/weaknesses and instil motivation despite low levels of commitment/ comparatively high frequency of disturbing behaviour on side of the participant	Is able to develop good working relationship, allowing for progress in content work, with participants with a high degree of psycho-social difficulties; behavioural limitations (e.g., in response to traumatic experiences, over-burdening life circumstances)
	4.3 Dealing with cognitive limitations	Knows about the key concepts of cognitive learning difficulties in adulthood, knowing about the key markers for them, can use knowledge for identifying potential difficulties (to be clarified by other professionals)	Is able to apply teaching strategies known for helping to curb/overcome given cognitive barriers and to motivate students for following these approach	Can identify given cognitive difficulties and tailor on an individual case-to-case base strategies for overcoming them, taking the response to given exercises as the base for guiding the further process	
5 Implementation – interaction learner to learner	5.1 Supporting peer learning	Is able to prepare and include learning activities strengthening peer interaction	Is able to develop peer-to-peer activities and to use the strength of each participant to support the overall learning process of the group	Is able to develop in an appropriate way the individual participant's ability to provide peer support and participating in a 'peer-teaching' function.	
6 Follow-up work (embedding the learning progress in the everyday context)	6.1 Anchoring teaching in real world needs of participants	Knows about concepts on the importance of situating learning into learners' real-life context and is able to use the knowledge in selecting content, teaching material and approaches	Is able to apply suitable methods for participant's current issues for strengthening the real-world relevance of the teaching	Is able to organise group learning processes around individual members real word problem, thereby balancing the divergent interests and needs	
	6.2 Strategies for expanding learning into day-to-day life situations	Knows about and is able to plan for real-world extension of learning activities (day-to-day use of reading, writing, calculating)	Is able to implement everyday activities of the participants in the lessons and to motivate learners and enable them to grasp the interplay between the lifeworld and the learning world.	Developing individualised strategies for mainstreaming of activities for participants not responding to the overall framework; achieving compliance under difficult individual circumstances	
7 Support for participants beyond the classroom (incl. eventual referral to advice centres)	7.1 Support for participants beyond the classroom	Is able to provide support regarding general questions about the day-to-day living conditions (including education and labour marked concerns, basic legal framework on asylum etc.) raised by participants.	Is able to recognise potential fields of problems a participant may have based on patterns of behaviour and address the situation in a suitable way (e.g., offer help, refer to other professionals)	Is able to choose from a broad range of support offers/supporting activities and can handle unexpected events of crisis in a way that promotes the further learning pathway of individuals/the learners' group in the long run.	
8 Interaction with other professionals	8.1 Cooperation with other educators to overcome obstacles in daily work.	Is able to observe and analyse the learning and teaching process in settings as job-shadowing or team-teaching.	Is able to apply insights gained from observing peers or exchanging experiences and questions with colleagues.	Is able to serve as a mentor for less-experienced colleagues.	Is able to contribute in a key role to development processes of the educational field.
	8.2 Cooperation with professionals in related fields – interprofessional cooperation	Knows about key concepts of related professions relevant for the own client base, can formulate observations in a way that members of these profession can understand the issue at play	Can communicate with related professions, understand their reasoning, and apply their recommendations/chosen ways of support to the own activities	Can cooperate with other relevant professions in multi-professional case work/supervision; can actively contribute to a case-based solution strategy worked out within the multi-professional team	

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