PROVIDE
Catalogue of assessment methods

Deliverable 13

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1. Introduction and background

This catalogue gives an overview of possible methods applicable to assess the development of key competences for VET professionals. The catalogue doesn't claim to be a complete list, but is designed to be a growing compilation of approaches to support project partners and VET professionals in applying the PROVIDE competence framework and to validate competence developments. The catalogues presents a sample of methods that can be used in individual or group work, the examples shown should reflect a good balance of productive and responsive assessment methods. The annex provides materials that can be applied in certain assessment situations.

The assessment of competence on different competence levels acquires a good overview of suitable assessment methods. Not every method of data collection fits to each informal and non-formal learning situation. We would like to provide the educational staff working in the field with a catalogue about methods which they can use for their individual projects and settings.

We present the following methods of data collection (assessment) in detail on the following pages:

- Reflective diary
- Concept map
- Interview
- Group discussion
- Role play
- Questionnaire
- Test
- Observation
- Unobtrusive measurement
- Portfolio
- Case study
- Self Assessment
- Games

Every method is presented with a short description, recommendations and instructions, and advantages as well as disadvantages of the method.

2. Methods of data collection

On the following pages you find the descriptions of different methods and approaches for data collection in different contexts.

Method of data collection	Short description of the method	Recommendations, instructions	Advantages and disadvantages
Reflective diary **Reflective journal** **Learning diary**	A reflective diary is an instrument for learner´s self-evaluation. It enables learners to document and reflect upon their learning experiences with regard to a certain topic. As a learning activity reflective diaries facilitate learner's self-reflection. As an assessment method reflective diaries provide insight in learner's understanding, content knowledge, knowledge application but also critical self-reflection and awareness.	Give regularly time (about 15 min. each day) for the learners to write down their learning experiences in a booklet. Explain that a reflective diary should focus on some basic elements: • A description of what happened • Personal feelings about what happened • A personal interpretation / evaluation of what happened • A conclusion from the experience • Take care that learners do not only report what happened! Let them focus on an issue related to the topic of the learning activity.	**Advantages:** Gives a deep insight in the learning process Facilitates reflective learning **Disadvantages/Difficulties:** Takes time and disciple to keep the diary regularly Requires ability for self-reflection Sharing personal feelings with others might be a sensitive issue
Concept map **Mind map**	Concept map is a diagram intended to illustrate the understanding of the relationships between concepts involved with a particular area of study. A list of words describing important aspects of a topic is assembled. The words are sorted into a hierarchy from most general to specific. They are arranged so that similar terms are near each other. Links are then drawn between the concept words, and statements written to describe or explain the links.	Use concept map at the beginning and at the end of a learning activity to identify the progress the learners made. Identify basic concepts and ask the learners to come up with related concepts and skills.	**Advantages:** It helps individuals to establish logical connection among ideas seemingly related. **Disadvantages/Difficulties:** For individuals who are not used to thinking along a clear structure, it might be difficult to reflect themselves.

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Interview **Personal interview** **Informal interview**	A purposeful exchange between two individuals to uncover perspectives, experiences, feelings and insights on a phenomenon. A powerful method of collecting in-depth and detailed qualitative data. Data can be analysed through content analysis with narrations and quotations.	Prepare an interview form with questions in line with the evaluation focus. Use open ended, clear questions with follow up prompts. Do not test knowledge but explore it through experience and description questions. Do not mislead respondents with biased, assumption loaded questions. Record conversation with permission (if tape recording is not possible, take short-hand notes)	**Advantages:** Uses the basic method of communication and eliminates limitations & artificiality of writing/filling in a questionnaire. Helps gather in-depth and detailed data. Flexible, open to follow up. **Disadvantages/Difficulties:** Small samples, generalization from sample to population cannot be done. Much effort and time is needed.
Group discussion **Focus group**	In group discussions a specially selected group is interviewed by a moderator. The group is usually composed of six to twelve individuals. Focus groups are useful for exploring norms, beliefs, attitudes, practices and languages.	The group should be composed of homogeneous members of the target population. The optimal size group consists of six to ten individuals. Choose a topic for the discussion and prepare a list of open ended questions that are arranged in a natural and logical sequence. Focus groups require trained moderators. The discussion should be taped for transcription or even filmed. An alternative is to take careful notes during the discussion.	**Advantages:** Is very close to daily communication forms. Focus groups can be used to "explore the field". The researcher gets an insight on a particular subject and can use the information to generate ideas and to prepare more structured methods (e.g. questionnaire) **Disadvantages/Difficulties:** Group discussions give informa-

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		Write a summary for each group discussion.	tion about a group not about individuals and they do not provide any information about the frequency or the distribution of beliefs in the population. Much effort and time is needed.
Role play	Assigning roles to learners within a scenario related to the learning topic, issues and concepts, and then asking the act out these roles in front of others.	Choose real life issues in relation to attitudes, skills and knowledge required by the learning topic. Ask other learners to assess the skills and attitudes demonstrated by the role players. Identify skills and attitudes developed and underdeveloped together with the learners to raise awareness and to help with peer evaluation.	**Advantages:** Helps participant experience the issues directly. Experiential learning and assessment can take place. Active involvement in the learning can be achieved. Good way to assess attitudes **Disadvantages/Difficulties:** Takes time. May be disturbing for passive learners.
Questionnaire	The use of questionnaires as a measurement tool depends on the type and length of the activity. Questions to test or measure learning can be in 2 formats—verbal questioning e.g. a question and answer session at the start and end of a session – or in written format e.g. tests or exams. The format which is chosen should be "fit for purpose"., depending on whether the	Questionnaires can be used in the 3 stages of assessment: Stage 1. Initial assessment to identify prior learning, experience or achievement. This allows the assessor to develop a baseline for learning and achievement. Stage 2. Formative assessment—to identify where the learner is, what progress is	**Advantages:** Provides written evidence of learning Provides assessor with a quick way to test that learning has taken place. Can be used for both formative

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	learners is at the start, middle or end of the activity. Questionnaires can be formal as in an examination, or informal as in a quiz. Questions can be asked to identify knowledge, experience, skills and achievements.	being made and how to "Fill Gaps" in knowledge, skills and understanding. Learners consider where they want to be and to plan how to get there. Stage 3. Summative assessment-This is carried out to make judgements about the learner performance at the end of a course/ programme or activity. Examples of questions "Closed" questions which restrict the learner to answering YES or NO, TRUE or FALSE "Open" questions which allow the learner to express and opinion or knowledge in sentences Multiple choice questions which ask the learner a question and then provide a range of answers for the learner to select the right one.	and summative assessment Fits well into formal learning situations **Disadvantages/Difficulties:** Questions can be misunderstood, results are determined by the interpretation of the reader Formal style does not meet needs of learners with other learning styles Can formalise the curriculum and suppress creativity Does not fit easily with informal learning situations
Test	A tool to assess the knowledge, skills and attitudes gained through the training It could be used to assess initial knowledge, attitude and behaviour, improvement in these respects in the training process and outcomes reached at the end of training.	Consider project purposes in preparing an achievement, attitude or performance test. In addition to standardized tests (such as multiple choice), consider the use of short and long open answer question tests to allow the learners to reflect what they learn more flexibly. Consider the target group's language and	**Advantages:** It helps to measure the gains and justifies the project effort and spending. It helps identify the weaknesses and strengths of learners in knowledge, skills and attitudes, and provides feedback to both learners and the trainers.

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		test taking skills in deciding on the testing tools.	**Disadvantages/Difficulties:** It could cover only a limited extend of the project goals and processes.
Observation **Hidden observation** **Direct observation**	The purpose of direct and indirect observation is to collect evidence of achievement by watching a learner's performance while they take part in an activity, but without interfering in their work. The activity can be a real situation or a simulated situation e.g. role-plays. Observation allows you to see the knowledge being put into practice and is better used when assessing and evidencing competence based learning. Direct observation is undertaken in person, either by a an assessor, peer or workplace supervisor. Indirect observation takes place when using appropriate technology such as video recording.	Direct Observation: Assessor Observation Report Form-this is completed as the learner is undertaking the activity. The assessor records what the learner does, how the learner behaves and interacts with others. The assessor makes a judgement against pre-determined criteria for citizenship competence Peer Assessment—This can be in the form of a discussion, a question and answer session or by recording information on a pro-forma. The peer will be another learner who has taken part in the activity alongside the learner who is being assessed. The Peer assessor will either record or provide verbal feedback on what the learner has done during the activity. Witness Testimony –this is a statement from a "third party" who has witnessed the learner take part in the activity. The witness could be a Work Supervisor or colleague. Feedback can be given in verbal or written form.	**Advantages:** Provides the learner with the opportunity to demonstrate competence and skills Allows learner to put knowledge into practice Provides creative and innovative method of assessment Contributes to the development of an activity based curriculum Provides a range of evidence for Portfolios **Disadvantages/Difficulties:** Can be time consuming for assessor Can be difficult to observe and assess individuals within a group

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		Indirect Observation This can be a video or film of the learner taking part in an activity. The assessor can recognise competence or achievement by observing the activity on the video. This can be supplemented by asking the learner questions about what is taking place on the film. Assessor Observation pro-form as can be used to record the assessment decision.	
Unobtrusive measurement **Nonreactive measurement** **Analysis of "traces in the field"** **Indirect measures**	Unobtrusive measurement is not really a method, but more a specific approach to collect data without provoking reactions from the persons you focus on in your surveys. Unobtrusive measurement is a form of research where the researcher is able to collect data without getting in contact with his target population. The main idea is that individuals or groups leave traces in the field that can be used for information about them (indicators for their behaviour, preferences and attitudes). There is no interaction between the researcher and his target group.	Be careful about the ethics of this type of measurement, because your target group does not know that you collect information about them (right of privacy). There are no limits for your inventiveness: You can use documents, photos, paintings, signs, physical traces, archives, public statistics, observations etc.	**Advantages:** Existing materials can be used without disturbing the target group. New forms of data collection can be developed. **Disadvantages/Difficulties:** Ethics must be considered very carefully e.g. when you use personal documents or photos.
Portfolio/ *E-Portfolio*	Portfolios are personal collections of information describing and documenting a person's achievements and learning.	Ask your learners/ learners to create their own portfolio/e-portfolio, e.g. on the PROVIDE my-Vita platform.	**Advantages:** Enables the individual to be

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	An electronic portfolio, is a collection of electronic evidence (artifacts, including in-putted text, electronic files such as Word and PDF files, images, multimedia, blog entries and Web links etc.) assembled and managed by a user, usually online. (E-) Portfolios are both demonstrations of the user's abilities and platforms for self-expression, and, if they are online, they can be maintained dynamically over time.	Encourage them to include all kinds of activities. Review during your project how competence levels are changing.	evaluated on various levels. Highlights all of an individual's skill sets. Extra curricular activities can also be highlighted Allows the reader to understand the different dimensions of the individual. Empowers individuals to connect their formal education, work experience and extra curricular activities. **Disadvantages/Difficulties:** Learners might need individual help E-portfolios require some technical skills as well as available soft- and hardware.
Case study	A strategy to describe events and processes within a framework through various data collection methods such as observation, interview, document analysis in order to understand and evaluate the case.	Use the case study strategy to evaluate the implementation and the effects of the project on individuals and groups. Case studies focusing on implementation help the evaluator to make decision whether the implementation responds to the intent of the project. Case studies focusing on program outcomes assess the impact of the program	**Advantages:** It helps to assess a complex activity or process through longitudinal, in depth and detailed description and contextual analysis. Both qualitative and quantitative data could be collected and analysed for triangulation.

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		and help identify reasons for success and failure. Plans should be made to obtain longitudinal data in depth and in detail.	**Disadvantages/Difficulties:** Only small samples can be included in the study. Time consuming.
Self assessment **Checklist**	Self Assessment involves learners in the process of assessment and allows them to reflect upon their learning and to review and record their achievements. Self Assessment can be both formative and Summative. In Formative Assessment the learner reflects on where they are and where they need to go next. In Summative Assessment the learner reflects on the knowledge that has been gained and the skills they have acquired, at then end of an activity. Self assessment enables learners to manage their own learning and plan their progression while they gather evidence for portfolios and qualifications.	It is important that learners have the opportunity to reflect on their own contribution to activities as well as the skills and knowledge they have gained. Self assessment can be used as a stimulus to provoke discussion and to encourage learners to develop their own techniques for reviewing their learning. The self assessment process is a cycle of planning, reviewing and evaluating. It is useful for learners to undertake some form of initial self assessment at the beginning of a learning activity, to identify existing knowledge or skills. The learner can then use this information as a baseline to monitor their progress and to recognise achievement. It is useful for the learner to develop a Logbook as part of the planning process, which will help the learner to identify what they aim to achieve and how they will achieve their objectives. A comparison can then be made later to review their progress. This is part of formative self assessment	ADVANTAGES Gives ownership of learning Builds confidence Motivates learners to progress Develops planning and reflective skills Provides evidence of knowledge and competence Improves decision making and communication skills **Disadvantages/Difficulties** Requires a disciplined and honest self-reflection

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		2. An Evidence Chart helps the learner to keep a record of the activities which they have done and the skills they have used. This is used when reflecting on what has been learned. This is part of formative self assessment	
		3. An Assessment Matrix enables the learner to review their learning against pre-determined criteria by giving themselves a score for each criterion. This gives them a visual record of their progress and enables them to identify strengths and weaknesses. This can be used for formative and Summative assessment	
		4. Evaluation Sheets act as a reflective diary and conclude the self assessment process. The learner brings together the Log, the Evidence of achievements and Assessment Matrix to reflect on what they have achieved and the progress they have made. This is Summative self assessment.	
Games	A tool to assess knowledge, skills or attitudes in a non formal way. Learners of a group get questions or task in a playful surrounding. While they answers the questions, or fulfil the tasks in the group, it is also useful for the other participants.	Not all people like games or are open to participate. Consider this when you select games. Make a good balance between knowledge questions and creative tasks. The atmosphere must be friendly enough	**Advantage:** Creates a nice atmosphere. The learner can demonstrate skills or knowledge in a creative way.

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		to protect "loosers". The group must not be too big. Invent tasks, which are also nice or useful to the other participants. Play the game yourself first before using it in the group to see the traps and to make a time-table. Every game needs a games-master. The games-master makes notes about the answers and assesses the orders.	Improves communication skills. **Disadvantages/Difficulties** Not every group appreciate "just games". Because of the gamble part it is a roughly assessment. It takes time, to prepare it and to play it.
Three chairs method	The person to be assessed is in a room with three chairs. One is marked as the cognitive chair, one is the active and one the affective chair. The learner is asked to sit down on one of the chairs and make him/her aware which one it is. This method is to assess one individual learner, but a whole group of learners can be integrated to practice and to raise awareness of the three dimensions of a competence, as described in the reference sheets	Ask the learner how he/she sees him-/herself in regard to the dimension focused on. Record the results.	**Advantage:** The activity supports the reflection process by physically taking different perspectives. **Disadvantages/Difficulties:** Need time
The tree or the boat	To make participants reflect and analyse their expectations toward the experience they going to undertake. The result of this activity will be used also in the second assessment so that partici-	Step 1: the facilitator presents the flip chart where is represented a tree or a boat; Step 2: each learner has to draw his/her position on the flip chart, explaining the	**Advantage:** To get a quick impression what differences exist in the group.– to be used and reflected within

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	pants can see their development.	reason also linked to specific competences Step 3: group discussion about the different expectations raised.	a group. **Disadvantages/Difficulties:** Provides very general results and needs to be deepened by follow up reflection
Choosing positions on a line	To show where people stand both figuratively and literally and their opinions and perspectives, they are asked to choose a position regarding a certain question or statement on an imaginary line on the floor in the room.	It has to be clear to the learners what each pole of the imaginary line means: yes/no, 0 %/ 100%, etc. Ask around: why did you choose this position?	**Advantage:** To get a quick impression what differences exist in the group.– to be used and reflected within a group. **Disadvantages/Difficulties:** Provides very general results and needs to be deepened by follow up reflection