



ERASMUS+ PROGRAMME

Key Action 2

Strategic Partnerships for Vocational Education Exchange of Good Practices

Project Name: Exchanging best practices in Europe to encourage
apprentice ship and training in bakery sector

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Innovative Training in the Bakery Sector

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This guide is a practice-oriented inspiration for teachers in the bakery sector. It offers an overview of good practices, of innovative methods in vocational and further training, as well as teaching tips and how to use digital technologies in the teaching process.

Planning and designing lessons

Planning and designing lessons is the fundamental activity of all teachers. Good planning makes implementation much easier - preparation is half the battle. Nevertheless, planning lessons is a complex challenge that requires attention to many things at the same time.

Lesson preparation means taking into account all circumstances / elements that contribute to success:

- Setting the learning objectives
- Determination of the learning units
- Pay attention to the target group
- Observing external framework conditions
- Planning of the procedure and methods
- Selection of suitable media and learning materials
- Improving your own skills as a lecturer
- Design of the learning processes of the participants
- Evaluation of the lessons

In addition to lesson preparation and didactic considerations for lesson design, teachers must also think about how to make the content accessible to participants so that they can achieve their learning goals. In what way and by what means can the lessons be prepared? This is a question of the method that will be used in the lessons.

Methods are instruments / aids / tools / techniques that instructors select and use to adequately convey learning content to their participants. By using different methods, instructors initiate and shape the learning processes of their participants so that learning can succeed.





Sample method overview

1. Methods with performing character

Description	Possibility of use	Notes on implementation
<p>Lecture, presentation Lecturers or participants present on a topic in a coherent form.</p>	<ul style="list-style-type: none"> • Representation of a connection • Introduction to a topic • Summary 	<ul style="list-style-type: none"> • Do not talk too fast • Clarify structure / highlight the central theme • Break up lecture with intermediary discussions • Visualize • Ask stimulating questions, not rhetorical questions • For contributions, show their value • Show real conversation, not a quiz situation
<p>Teaching talk Presentation form that is both lecture and conversation: the lecture is developed with the participants' contributions.</p>	<ul style="list-style-type: none"> • Introduction to a topic • Elaboration of a topic 	

2. Substance-oriented methods

Description	Possible applications	Notes on implementation
<p>Text work Information or knowledge transfer takes place through the processing of selected texts.</p>	Development and deepening of knowledge	Give a clear task to work on Divide up tasks
<p>Brainstorming In response to a closing question, associations are collected, sifted and structured, and thus an initial structure on a topic is developed.</p>	Entry into a topic Experiential learning processes	Formulate key question clearly and unambiguously





Project method

Processing of a complex, real-life task. The learning process includes planning, execution and securing the results of the problem solution.

Researching a fact Consolidation and application of what has been learned

Define the projects together with the participants

3. Communicative methods

Description	Possibility of use	Note on implementation
<p>Collegial consultation Following a specific conversation culture, problem solutions to a real or fictitious case are developed and discussed.</p>	<ul style="list-style-type: none"> • Development of solutions to problems • Application of knowledge and practical situations of the participants 	<ul style="list-style-type: none"> • Allow sufficient time • Communicate and adhere to the structure of the conversation • Reassign roles for each case (case giver, advisor, facilitator).

4. Design methods

Description	Possibility of use	Notes on implementation
<p>Design theme pictorially Participants express a theme pictorially, providing starting points for interpretation, exchange, and learning.</p>	<ul style="list-style-type: none"> • Consolidation and relaxation phase in subject-oriented learning processes Reflection occasion in behavioral learning processes. 	<ul style="list-style-type: none"> • Give clear task • Provide materials in sufficient form





5. Meditative methods

Description	Possible applications	Notes on implementation
<p>Fantasy trip Participants listen to a story and then flesh it out with their own pictures.</p>	<ul style="list-style-type: none"> • Set the mood • Relaxation phases 	<ul style="list-style-type: none"> • Pay attention to calm and steady voice

6. Playful oriented methods

Description	Possible applications	Notes on implementation
<p>Role play A social situation (conflict, behavior) is role-played, observed by the others under certain criteria and then evaluated.</p>	<ul style="list-style-type: none"> • Learning and rehearsing new behaviors • Presentation of controversial situations 	<ul style="list-style-type: none"> • Clearly define roles and situation to be played • Asking clear questions of the observers
<p>Business game Complex skills are practiced by acting in quasi-first situations (e.g., practice baking) or group dynamics are tested.</p>	<ul style="list-style-type: none"> • Apply and test complex skills for later real-life situation 	<ul style="list-style-type: none"> • Research suitable business games (developing your own can be very time intensive)

Lesson planning also involves considering which media will be used by teachers, when, and for what purpose. Media, like methods, do not have an end in themselves, but are always a means to an end.

As a teacher, it is necessary to keep up to date and regularly exchange ideas with others, both in terms of technical content and didactic topics and the use of technical systems. In the following, we provide practical tips and advice on how to stay up to date:

- Trade journals and technical literature in online or print media.
- Events such as trade fairs or instructor meetings
- Newsletter
- Professional and informal exchange with other teachers
- Cooperation with companies from the bakery trade
- Participation in projects (like Erasmus+)





Action-oriented teaching

Our professional world and thus also the bakery sector are in a constant state of change. This is increasingly influencing the requirements placed on education and training processes. These should not only teach subject-specific content, but also interdisciplinary skills, so-called key qualifications such as independence, flexibility, the ability to work in a team, problem-solving skills, willingness to take responsibility, etc. After all, in the actual professional life of a baker, it is not only specialized knowledge that is required, but also action skills that allow the mastery of a wide range of action competencies.

The aim of action-oriented teaching is to actively involve the participants in mastering complete actions and thus to introduce them to an ability to act on their own responsibility. This ability to act is characterized by the ability to think and act critically, reflectively, responsibly and independently, as well as teamwork, communication, mobility, flexibility and self-organized learning.

Action-oriented learning is understood and organized according to the "complete action" model. This means: An action can be defined as a conscious and purposeful doing, i.e. work or learning goals determine a course of action that is intentionally exercised. If all components of an action occur, as is the case with many of the tasks master bakers perform in their daily work, this is referred to as a complete action.

Teachers design and influence the learning environment of their participants in such a way that they can acquire action competences. In principle, action-oriented teaching in vocational education is based on the following eight characteristics:

1. Complex task
2. Learning in complete actions
3. Integrated specialized classroom (bakery)
4. Inner differentiation
5. Cooperative and communicative learning
6. Self-control and degrees of freedom
7. Advisory teaching role
8. Integrative and open performance assessment

With regard to action orientation, pay attention to the following:

- Activity-based teaching is not a method, but a concept.
- Good action-oriented teaching opens up different approaches to the topic for the participants or shows different ways of solving the problem.
- Learning is a construction process during which learners create their





- individual representation of the world.
- In order to learn something new, the participants must, on the one hand, build on their own prior knowledge and experience and, on the other hand, expand their personal competencies through independent action, observation and reflection.
- Participants should recognize the relevance of what they have learned for practice.
- Action orientation places demands on tasks at various levels, e.g. it requires clear practical relevance.
- The tasks cover a learning area (e.g. making bread) for a longer period of time in single-day or block lessons. This makes the learning content more concrete and easier for the participants to categorize.

Tips and hints:

- Avoid abstract learning content
- Instead, practical and complex tasks, through which the acquisition of knowledge and the acquisition of action competence can be combined.
- Support participants in transferring what they have learned and thus in solving tasks or problems that have not been discussed before.
- Convey learning content in a methodically varied manner and use action-oriented methods that actively promote cooperation among participants.
- The following applies to exams: Not only the result should be evaluated, but also the solution path and the learning process.

Exam preparation

The applicable examination regulations are important instruments that should or must be used by instructors in their course preparation. They contain essential information on how the respective course of a training is to be structured and designed.

Tips and hints:

- Examination regulations should be used as the "official agenda" for designing training courses.
- Examination regulations at the start of training together with the participants. This provides clarity on the requirements of the subsequent examination.

Making good use of media in training as a baker

Media (whether analog or digital) are tools and aids (means of communication) for optimizing learning processes, i.e. for shaping instruction. Media - like methods - have no end in themselves but are always a means to an end!





The most important functions or added values of media include:

- Media provide orientation; through them, content and information can be structured and visualized.
- Media make it easier for participants to understand and retain content; they enable information and connections to be grasped more quickly. Complex issues are often easier to understand through pictures and graphics, etc. than through additional verbal information.
- Media support and reinforce the impact, statements and intentions of lecturers.
- Media can promote participants' independence.
- Media loosens up the lessons.
- Digital media in bakery training

Progressive digitization and media networking are having an impact on our private lives and our working world. Accordingly, training in the bakery sector is also facing new challenges.

Digital media offer new opportunities for networking and knowledge transfer that must be considered in education and training. They create alternative ways of networking, communication, participation and cooperation. As a result, teaching and learning content can be imparted regardless of time and place. Qualification offerings can be designed more flexibly, individualized more effectively and adapted more quickly to current requirements.

The use of digital media is linked to three central prerequisites

1. The technical equipment of the educational institution
2. Participants' media literacy,
3. The media competence and the media pedagogical competence of the lecturers

Teaching with the help of digital technologies is extremely complex. The spectrum of course design can be roughly divided as follows:

- Purely virtual measures 100% online teaching
- Blended learning concepts:
- Combining traditional classes and online phases - hybrid classes
- Enrichment scenarios: Integration of digital tools into classroom teaching

The best digital learning offering is not necessarily the one with the most features, but the one that best meets the needs of the target audience.





Web conferences

Web conferencing systems, such as Zoom, MS Team, Adobe Connect, offer various communication channels (audio, video, chat). They give lecturers and participants the opportunity to meet at a virtual learning location at a fixed time, regardless of their actual location. There, they can not only communicate with each other, but also work together, e.g. by viewing and editing common documents. Many conferencing systems also offer the option of working in separate virtual group rooms.

Documents and PC applications can be shared via screen broadcast or whiteboard, and files can be made available for download. Likewise, meetings can often be recorded.

Tips and hints:

Of course, communication in the virtual space is not identical to communication in the real space, as there can be slight time delays and image transmission which can limit body language to a certain extent. Moderation is therefore all the more important in discussions involving several people. It is advisable to establish specific communication rules for the virtual space (e.g., announce requests to speak by pointing them out virtually). Especially due to the changed communication conditions, a one-to-one transfer of course concepts from face-to-face teaching to the virtual space is often difficult to realize. The lack of social experience in the group makes e.g. interactive methodological approaches even more important.

When teaching using a conferencing system, the following guiding questions can help:

- How is the content presented by the instructor?
- What does the lecturer have to consider due to the physical distance?
- How can the instructor motivate participants to actively participate?
- Which interaction possibilities can be used?
- How can feedback be obtained? Digital tools for teaching

Various apps and tools can be used to plan, create and conduct lessons. Finding the right tools and, above all, keeping track of the large number of offers in the digital jungle is not always easy.

The following applies: It must meet the respective needs and expectations of the users. Requirements such as usability, ease of use or usability of a system are summarized under the term usability. Lecturers should be able to use the tools without having to have IT expertise or programming knowledge.





Digital tools fall into three categories:

1. For course preparation, i.e. content management:
2. Scheduler, time tracking tools, social bookmarking, cloud-based filing systems (e.g. Dropbox, Google Drive).
3. For the course implementation, i.e. the processing and organization of the contents: Presentation tools (e.g. PowerPoint, Prezi), comic tools, virtual whiteboards (e.g. Padlet) collaboration tools, virtual conference/course rooms (e.g. Zoom, MS Teams, Adobe Connect), apps for creating videos via smartphone or tablet.
4. For the course follow-up, i.e. the evaluation, summary and documentation of the contents: Online forms for evaluation (e.g. Google Forms), e-books, bulletin boards

Finding suitable and, above all, usable digital tools requires some patience, as the abundance of existing tools is constantly being expanded. In the following, we present some practical tools that can support teaching in the bakery trade.

Sample overview of useful digital tools

Website	Function	Notes
https://bit.do https://bitly.com https://cutt.ly	Shorten long internet addresses (free, English)	With short link services, so-called URL shrinkers, long and cryptic Internet addresses can be shortened to make it easier for participants to type them manually into the browser.





www.nicertube.com

Embed Youtube videos without being on the YouTube page (free, English)

With NicerTube, individual excerpts of a YouTube video can be virtually extracted and incorporated into the teaching materials or presentation. To do this, simply copy the YouTube link, paste it into NicerTube, select a new background - and you get a new, much shorter link with the typical environment (advertising and comments) omitted. In this way, the participants are not unnecessarily distracted, but concentrate on the content.

www.polleverywhere.com
www.surveymonkey.com
<https://www.google.com/intl/en-GB/forms/about/>

Create surveys

These tools make it very easy to conduct digital surveys and polls, brainstorm, and collect participant questions.

www.wortwolken.com

Create individual word clouds (free trial)

A word cloud captures the most common words and terms in a text and illustrates them graphically.

www.spreaker.com

Create sound recordings (smartphone app, free basic version)

This tool makes it easy to record voices online or offline (your own or those of the participants) and mix them with different sound effects - a small radio studio for your smartphone.

<https://www.pixton.com>

Create comics (free trial)

With this tool you can quickly and easily create your own comics. Complete stories can be told (storytelling).





<https://learningapps.org/>

Create quiz (free of charge)

Many ready-made templates (matching exercises, multiple-choice tests, etc.) are available here. But it is also possible to create your own quizzes.

<https://www.animaker.com>

Create Animated Videos (Free Trial)

With this software, alone or together with the participants, you can create your own animation videos in no time.

www.padlet.com

Brainstorm together (free trial)

Padlet is a digital whiteboard and is very well suited for card queries, as an alternative to pinboards and moderation cases. In addition, Padlet can be used to create charts, graphs and documents, among other things, that are easy to read and on which participants can collaborate.

<https://prezi.com>

Create interactive presentations

Prezi lets you create engaging, interactive presentations and analyze results.

Tips and hints:

- It's not about the tool, it's about diversity and new possibilities.
- Media, whether digital or analog, have no end in themselves; they are always a means to an end.
- With digital tools, it helps to start simple.





Good Examples of the Partners involved in the Project

Training in the bakery sector - sustainable, up-to-date and digital? There is a growing awareness of sustainable practices - and modern, digital training methods - in the European Bakery sector. Some Good practice examples from the project participants:

Virtual Bakery Tour

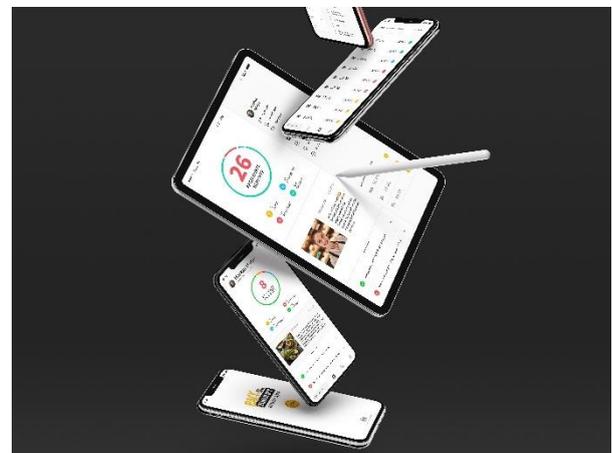
The transformation to sustainability, taking into account technological change and digital opportunities in a globalised world, will only succeed if the foundations for this are already being laid in training. At the German National Bakers Academy, trainees can take a virtual bakery tour: With 3D glasses, they get insights into bakeries from Germany, Greece, France, Iceland, Austria and the USA. The virtual bakery tours are a multimedia experience and offer a tour of top bakeries around the globe. In 360-degree short films, concepts, work processes and the artisan bakers behind the respective business ideas are presented. In a matter of seconds, thanks to the virtual bakery tour, trainees find themselves in the heart



of bakeries in Herrenberg, Düsseldorf, Vienna, San Francisco, Reykjavik or Athens.

App for Training Record

German bakery trainees have the opportunity to keep the training report digitally with the help of an app. The app offers a modern and attractive alternative to the old, written form of the training record. With the help of the app, trainees can write their reports anywhere and at any time on their smartphones. Writing reports with the app is intuitive and time-saving. The dashboard also allows trainees to see at a glance how many reports they still have to write or correct. The system also



provides trainees with news and information and gives tips on training. Another advantage of the app is that it promotes and simplifies communication between the training company and the trainee. Read more: <https://app.bddz.de/>





Making a change: Ready for the Future

At the Gremi de flequers de la província de Barcelona they are developing a project that responds to these needs of companies in the sector to adapt to the post-Covid-19 reality to:

- Influence the digital transformation of our sector to adapt to the current economic and social environment.
- Promote the increasingly common use of electronic commerce and digital platforms to interact with consumers and know their preferences as well as adaptation to new shopping habits that require them to be innovative and where digital marketing is necessary.
- To face the new challenge of the bakery sector trade in the current situation caused by the Covid-19 pandemic, which implies changes both at the organizational and hygienic-sanitary level, among others.

To give the opportunity to participate in moments like the current ones or facilitate contact with the bakery of excellence to professionals who, due to their residence or situation, cannot travel to our school, they are carrying out a project to digitize Premium elaborations, basically aimed at professionals who with their support can acquire the technique of making the products presented.

On the other hand, the bakery and pastry trade requires specialized professionals, knowledgeable about the trade, well trained and with skills that allow them to adapt to changes in consumption habits and the digital transformation to which society is subjected.

New technologies have a very large impact on the way of selling and relating to the client, and it is not incompatible with our very manual and artisan trade. Our commerce will have to adapt to digital transformation, which is a great challenge for most merchants. It's evident that craftsmanship and manual work are traits that identify and define local commerce and product quality, but all commerce must know how to adapt to any change or transformation in the way of selling, distributing or communicating with the client, however small it may be.

Renewing the Infrastructure

At the School Ter Groene Poorte, training in person is really important. In these Covid-times there is a lot of pressure to give certain classes on distance by e-learning. We notice that this is possible for the general and theoretical classes, however not for the practical.

The practical side of the school is thus always done in personal contact between the students and the teachers. Especially on that side we are strongly thriving to product innovations and towards innovations in technology and working methods.

At the moment the School Ter Groene Poorte is investing about 2.5 mio € in a new bakery school. The main target there is of course renewing the infrastructure, however with a few innovative possibilities:





- The project includes all what is technical needed to train working methods in order to shift the working hours in the future from night to day, without passing freezers and with increasing the quality and the flavors of the products. This will be partly done by installing new climate-controlled chillers that allow the products to be proved in long process, increasing quality and flavor and making a bridge over the nightwork.
- Nightwork is becoming more and more a choice, rather than an obliged part of the baker's life.
- The School Ter Groene Poorte is rebuilding the classrooms so they can mix up groups of students based on their needs, strengths and weaknesses, rather than based on just age and class group. In this way they can differentiate based on the needs of the students and can challenge the strongest students to accelerate and be even more strong.

Internships Abroad

For 4 year the School Ter Groene Poorte is working with an Erasmus program to allow their students to go for their internships abroad. In this way they bring the strengths of German bakery, Uk patisserie, French bakeries, Dutch marketing etc. also in our school. Students and professors are including these learning in the own lessons and are spreading this knowledge further to the rest of the students and teachers.

Pop-Up Stores

Last, but not least, the School Ter Groene Poorte start cooperating with external partners for pup-up stores, where they generate the space needed for ex-students starting a business and wanting to try their business idea in a small scale and for a limited time, before they invest in an own business. At the same time, the School Ter Groene Poorte cooperate with companies introducing new sales methods and technologies in their future pop-up store and in their school.

Suddenly Distance Learning - It Can Work

In-service trainings on technology & information systems were planned for the Institute Istanbul ISMEK trainers and online in-service trainings were delivered to all staff of the institution. School administrators and instructors were in constant communication during online education processes and reported any deficiencies. Staff contact information was shared on our institution website and students could easily direct their questions to instructors via e-mail. At this point, it is prevented that people move away from education or think that they are psychologically backward in the context of time. From academicians working in the food and beverage sector to trainers, short-term seminars and trainings were organized to support field knowledge and teach new practices. Various recipes were shared through the Institute Istanbul ISMEK official Instagram account and students were asked to share their own recipes. Distance education versions of the most demanded programs in face-to-face education have been created. Recipes with ingredients and equipment that everyone can easily access have been preferred. Both in terms of cost and in the home environment alone, the applicability of information has been experienced with visual contents, where the person can obtain products in a simple way.





When infrastructure problems or technical problems occur during the implementation phase of distance education programs, technical personnel have accompanied each course in order to intervene immediately. In this way, it was ensured that the course flow proceeded without interruption. The possibility of students and instructors being negatively affected by negativities and panicking, experiencing stress and leaving the course because the problem cannot be solved is reduced.

Training Bus

With a training bus the Institute Istanbul İSMEK aim to reach people living in places (villages) where there is no Institute Istanbul İSMEK centre, to offer them the existing course contents and to enable them to participate in short workshops. In addition, there is an exhibition area where miniature (sugar dough flower models, sculptures and models made of bread) products made in this bus are exhibited.



Discover the HTL for Food Technology as an online experience!

The school allows all interested people to take a virtual tour of the campus. The classroom, laboratories and workplaces can be visited at all times of the day and from anywhere.

https://www.htllmt.at/images/Virtual_Tour_Eingang_HTLLMT/



Exchange Data, Tasks and Documents

In order to cooperate with students on the school level, the HTL für Lebensmitteltechnologie, Getreide- und Biotechnologie work with MicrosoftOffice365. They use the applications to exchange data, tasks and documents. So that students can calculate recipes, nutritional values and NutriScore-labeling on their own, arithmetic operations are solved in a form-based way in Excel.

