



Equip EQF level 5 trainings for managers in the transport sector with inclusive teaching methods, tools and training material to ensure online and distance teaching and learning, continuous learner monitoring and the evaluation of learning outcomes

Pedagogical scenarios for online and distance learning on selected learning objectives of the transport manager training programme

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1. Introduction

The e-ManTRA project aims to help transport and logistics training providers to overcome barriers to online and distance learning.

This document provides teachers and trainers of EQF level 5 transport manager training with pedagogical scenarios for the implementation of online or hybrid training. Based on our [Inventory](#) with over 50 pedagogical approaches, these scenarios propose a combination of innovative and complementary methods and tools to support teachers and trainers in designing varied and interactive distance learning courses.

These scenarios were moreover tailored to reduce the number of dropouts and ensure inclusion and accessibility. By combining different methods, it is easier to address diverse types of learners, adapt to their skills and capacities and involve students more actively. Alternating between synchronous and asynchronous as well as individual and group-based working sessions increases the dynamics and variety of the course and has a positive impact on learners' motivation.

We would like to point out here that these scenarios are intended to serve as examples and will most probably have to be completed and adapted to the resources and conditions of the training. They can also serve as inspiration and be transferred to other subject areas.

1.1 Learning objectives covered by the e-ManTRA scenarios

To present our pedagogical scenarios in the most concrete way possible, the project partners have selected different learning objectives for the transport manager training. The aim was not to be exhaustive, but to select a panel of competences that are at the heart of the transport manager job. For a better understanding, we have organised these learning objectives into the different main activities in the table below:

N°	Learning objectives	Page
Implementation of freight transport operations:		
1	To treat a transport demand	6
2	To design the most efficient routes for road transport, based on the available transport network	12
3	To calculate the cost of a specific goods transportation service	16
4	To define the scheduled times for shipping and arrivals considering optimal driving hours, according to European regulations	20
5	To apply European social regulations on driving and rest times for truck drivers	24
6	To apply European cabotage rules	28
7	To know the requirements for engagement in the occupation of road transport operator	32
Management of assets and technology considering environmental, social and economic challenges:		
8	To select suitable transport equipment	37
9	To reduce the environmental impact of transport operations	41
10	To ensure security of data	45
Team management:		
11	To know working time legislation	52
12	To plan shifts and resources	56

13	To work in a team	60
14	To draw up a payslip for truck drivers	63

1.2 Methods to complete the e-ManTRA scenarios

To avoid repetition, in each of the scenarios we focus only on the methods related to knowledge transfer, practical application of acquired knowledge, assessment of learning outcomes, etc. To complete these and to start, for example, with a short stimulating activity or to ask students for feedback after a novel learning session, we would like to present different methods that can be combined with each of the following scenarios as needed. Finally, we introduce a useful online tool that evaluates the learners' transversal skills in order to allow teachers and trainers to create balanced working teams and adapt their teaching methods regarding the learners' abilities.

Introduce a lesson/new topic in a dynamic way

In this chapter we present some methods or tools that help starting a training session or group work in a way that allows participants to get to know each other or to trigger interest in the topic that will follow.

Also named "ice-breakers", introduction methods serve to "break the ice" between the participants. Ice-breakers are short activities, that provide an opportunity for students to engage with each other and the instructors. They range from simple personal to course-related questions.

One of the most important features of these methods/tools is that they are interactive and fun. By getting to know each other, getting to know the facilitators and getting to know the objectives of the session, participants can become more involved in the process and thus contribute more effectively to a successful outcome.

Before each of the suggested scenarios, you can use an introductory method or tool. There are many types of ice-breakers, each suited to different objectives. Here are some suggestions and how they can be used:

- **Fun fact:** Ice-breaker to know more about each other. Learners will anonymously write a fun fact, then the group will try to match a person with his/her fun fact.
- **Coffee break:** Ice-breaker that stimulates discussion between learners to get to know each other.
- **Word clouds:** Simple tool to create a word cloud with a group. The principle is to collect words so that the most mentioned word is the largest in the picture.
- **Jeopardy:** With this tool, teachers/trainers can organise an online quiz on knowledge related to their course and thus stimulate the learners' curiosity.

If you are interested in further methods/tools, please consult our [Inventory of methods and tools](#).

Increasing and evaluating learners' involvement

Access learners' feedback can positively impact the teaching and learning processes. On the one hand, it provides teachers with a discerning window through which they can assess their teaching methodologies, assess students' comprehension, and adapt working plans to meet students learning needs based on the gleaned insights. On the other hand, the act of giving feedback empowers students

with a voice, makes them feel valued and that their opinions matter, and thus engages them in the learning process at a deeper level.

In our Inventory, we propose methods and tools to collect learners' feedback (remotely). As for the introduction methods, these methods can be applied to all the pedagogical scenarios.

We have focused on the following methods:

- [The starfish](#): Method to collect learners' opinions and feelings about the teaching methods and tools used.
- [Prisoner, Shopper, Vacationer, Explorer \(ESVP\)](#): Method to help teachers/trainers to find out more about the learners' mood, whether they are motivated and interested in the topic or rather reserved, and to react if necessary.
- [Mentoring](#)

If you are interested in further methods/tools, please consult our [Inventory of methods and tools](#).

Tool to evaluate transversal skills of the learners

[Eduteams](https://eduteams.iiiia.csic.es/login) (<https://eduteams.iiiia.csic.es/login>) is a web-based application, which allows creating balanced and inclusive working groups for different tasks or projects in a virtual or face-to-face classroom.

The application uses Artificial Intelligence algorithms to build teams with a diversity of genres, personalities and intelligences for more efficient collaboration. It is based on eight multiple intelligences, which are correlated with competences necessary to complete any assignment:

- Bodily / Kinesthetic
- Interpersonal
- Verbal / Linguistic
- Logical / Mathematical
- Naturalistic
- Intrapersonal
- Visual / spatial
- Musical

The applicability of this tool is extremely convenient in the context of distance learning, since students may not know each other in person, so this application ensures having equal teams and the participation of all the students enrolled in the course. It is also useful to detect weaknesses regarding transversal skills and to enable teachers and trainers to train them in a targeted way through our methods and scenarios. Moreover, the tool doesn't require any previous installation, is compatible with any device and is free to use.

2. Pedagogical scenarios for online and distance learning on selected learning objectives of the transport manager training programme

The following pedagogical scenarios are suggestions from the e-ManTRA project team to support teachers and trainers in implementing online or hybrid training for the given learning objectives. It is important to emphasise that these scenarios should be seen as examples that combine complementary formats, methods and tools to create a dynamic, varied and interesting learning experience. They are by no means to be seen as completely exhaustive or the only way to achieve the learning outcomes in question. Consequently, teachers and trainers can use them as they are, or adapt them to their own needs and training conditions, or to other subject areas.

2.1 Implementation of freight transport operations


Learning objective n°1: Basics of treating a transport demand


Short description of the learning objective:

- To evaluate a transport demand:
 - To identify the requirements and constraints of the order,
 - To ask the right questions to study the feasibility of the service.
- To process an order:
 - To calculate a route considering the European social regulations,
 - To identify the human (driver's schedule) and material resources adapted to the service (choice of truck),
 - To establish a cost estimate.


For learning objective **“Basics of treating a transport demand”**, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/ tool	Reason why these methods/tools were chosen
1	Goal-based scenario	<ul style="list-style-type: none">• Facilitates teaching of complex content.• Allows students to accomplish tasks that are similar to real-life problems.
2	Sketchnoting	<ul style="list-style-type: none">• Graphical method to organize information and help to understand complex content.
3	Role playing	<ul style="list-style-type: none">• Make learners apply knowledge in a practical way.
4	The blind zone	<ul style="list-style-type: none">• Assess and evaluate knowledge.

<p>Format:</p> <p>Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)</p>	<p>Strongest characteristic of this method:</p> <p>Facilitates teaching of complex content.</p>
	<p>Short description:</p> <p>Link to the full description.</p> <p>This method combines case-based learning with learning by doing. Goal-based learning is based on the concept of learning a set of skills during the process of completing a specific goal that is of interest to the learner.</p> <p>For example, the step-by-step approach to identify the constraints of a transport demand, in order to study its feasibility can be considered as a goal-based scenario.</p>
	<p>Aspects of the learning objective covered with this method:</p> <p>Dealing with a transport demand requires the implementation of different steps: identifying the constraints, defining the adapted material and human means, defining the itinerary, taking into account the ESR, ...</p> <p>This method allows teachers to create different scenarios to help learners acquire the skills and knowledge needed to process an order.</p>
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Online conference tools. • Presentation material: PowerPoint, for example, to present the tasks to accomplish to the learners.
	<p>Advantages of using this format:</p> <p>A lot of direct interaction between the learners and the trainer.</p> <p>The format allows a high level of learning control.</p> <p>Extends the attention span of learners.</p> <p>Offers potential for better integration and transfer of training content.</p>
<p>Advantages of using this method:</p> <ul style="list-style-type: none"> • Highly motivating method. • High practical relevance. 	
<p>Difficulty of implementation:</p> <p></p>	<p>Approximate duration:</p> <p>It depends on the mission and the information provided to the learners and on the way, the teacher wants to organise the session.</p>

<p>Format:</p> <p>Flipped classroom (self-study followed by tutor-supported and/or social learning forms)</p>	<p>Strongest characteristic of this method:</p>	<p>Facilitates teaching of complex content. / Helps to understand complex content.</p>
	<p>Short description:</p>	
	<p>Link to the full description.</p>	
	<p>Sketchnoting is a form of note-taking: ideas are synthesised by scribbling diagrams, lettering and words, illustration and characters.</p> <p>It's a visual and graphical method to organize information and help to understand complex content.</p>	
	<p>Aspects of the learning objective covered with this method:</p> <p>By using this method, the teacher allows his or her learners to organize the different steps to respond to a transport demand.</p> <p>After learning the different steps of processing a transportation demand with the goal-based scenario method, the teacher asks the learners to organize the steps they have seen before using the Sketchnoting method during the asynchronous self-study phase. In this way, learners revise the contents in another way helping them to retain this crucial knowledge.</p> <p>In the synchronous phase of the flipped classroom, the teacher can organise group work. Each student presents his/her composition and reviews the content with the group members with the aim to complete and improve all sketchnotes.</p>	
<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Sketchboard • Online conference tools 		
<p>Advantages of using this format:</p> <p>Promotes the transfer of theory into practice. High flexibility in terms of individual learning speed and timing.</p>	<p>Advantages of using this method:</p> <ul style="list-style-type: none"> • Boosts the learners' creativity • Facilitates the memorisation of learners • Facilitates the organisation of information • Simple to use and fun 	
	<p>Difficulty of implementation:</p> <p></p>	<p>Approximate duration:</p> <ul style="list-style-type: none"> - 15 min: Demonstration of sketchnoting by the trainer - 1-2 days: Learners create their own sketchnoting - 45 min: Group work - 15 min: Debriefing in class


<p>Format:</p> <p>Blended formats (one part of the learners in the classroom, the other part online at the same time)</p>	<p>Strongest characteristic of this method:</p>	<p>Appropriate for professional skills development.</p>
	<p>Short description:</p>	
	<p>Link to the full description.</p>	
	<p>Learners are confronted with a professional context /situation. Within this context, they take a specific role to play (transport manager, consignee/shipper/customer...).</p> <p>The lesson is then conducted, assessing the learner’s ability to stick to their roles, to carry out the relevant tasks or react in the right way and to learn from the experience.</p>	
	<p>Aspects of the learning objective covered with this method:</p>	
	<p>Learners take on the role of different interlocutors involved in the processing of a transport demand.</p> <p><u>Option 1: The learners in the role of the transport manager have to collect the necessary information from their customer</u></p> <p>One distance learner and one present learner form tandems. One of them plays the customer, the other the transport manager. It is important that the teacher provides a document with all relevant information about the transport mission to the learners who play the customer, but they must only give the information their tandem partner is asking for.</p> <p>At the end of the role play, teacher and learners discuss the different role plays: What was missing? What was complicated? ...</p> <p><u>Option 2: The learners in the role of the transport manager have to collect the necessary information from their customer and to set up a transport offer considering all identified requirements and constraints</u></p> <p>If you want to go further and make the learners establish a transport offer based on the information requested from their clients, the teacher can create several roles plays with different scenarios.</p> <p>In this case, each student plays both roles at the same time: for example, student A is the customer of student B who is the customer of student C, and so on. This means that all students have to comply with a request and elaborate a transport offer.</p> <p>At the end of the role play, teacher and learners can compare and discuss the outcomes.</p>	
<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Online conference tools for the online part 		

Advantages of using this format:	Advantages of using this method:	
Possibility to include participants who are not on-site for many reasons. Opportunity to retain the benefits of face-to-face learning for a maximum of participants without excluding learners who cannot be on-site.	<ul style="list-style-type: none"> Provides real-world scenarios to help students to learn and apply their skills. 	
	Difficulty of implementation: 	Approximate duration: <ul style="list-style-type: none"> Preparation of the assignment description: 1 day 30 min to accommodate a role-playing activity 15/20 min of debriefing

The blind zone

Testing knowledge

Format: Virtual classroom training (100% synchronous)	Strongest characteristic of this method:	Appropriate for assessing learning progress / competence development.
	Short description:	
	Link to the full description.	
	The blind zone method allows trainers to check the level of knowledge and identify the gaps of each learner based on a reflective exercise. It invites the learners to situate themselves in the spectrum of knowledge.	
	Aspects of the learning objective covered with this method:	
This method will help learners to identify gaps in their knowledge regarding the basics on how to treat a transport demand.		
The teacher will be able to see the different issues that need to be revised with the learners.		
Recommended tools for this method:		
<ul style="list-style-type: none"> Online white board Online conference tools 		
Advantages of using this format:	Advantages of using this method:	
Strongly resembles a natural classroom environment, hence	<ul style="list-style-type: none"> Gives complete feedback to the trainer on the knowledge of each student Enables perceiving major knowledge gaps 	

<p>offering great potential for transfer.</p> <p>A lot of direct interaction between the learners and the trainer, so there is a high level of learning control.</p>	<p>Difficulty of implementation:</p> <p style="text-align: center;"></p>	<p>Approximate duration:</p> <p>45 min to 1 hour</p>
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Learning objective n°2: To design the most efficient routes for road transport, based on the available transport network

Short description of the learning objective:

- Logistics firms that operate their own fleets tend to use a route plan that has the vehicles starting and ending at the same location. This ensures the minimum repositioning of vehicles and personnel. However, to develop routes that cover all deliveries and pickups to and from numerous customers is extremely complex and to develop the routes that are most efficient is becoming increasingly difficult.


For learning objective “**Designing the most efficient routes for road transport, based on the available transport network**”, the e-ManTRA team suggests the following combination of formats, methods, and tools:

N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Lecture	<ul style="list-style-type: none"> • Develop students’ knowledge.
2	Group competition simulation	<ul style="list-style-type: none"> • Make learners apply knowledge in a practical way and foster transversal and professional competences.
3	Presentation	<ul style="list-style-type: none"> • Develop students’ communication and speech skills and can also be used as an extra assessment tool.

Lecture




Knowledge transfer

Format: Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)	Strongest characteristic of this method:	To deliver knowledge on a given topic.
	Short description:	
	Link to the full description.	
	Aspects of the learning objective covered with this method:	To transfer the knowledge on how to design the most efficient routes for road transport, based on the available transport network.
	Recommended tools for this method:	<ul style="list-style-type: none"> • Projector. • Students’ laptop or other devices with internet connexion. • Teachers can use special software that usually includes a range of tools for synchronous online teaching such as a whiteboard, application sharing, audio conference and chat.
Advantages of using this format:	Advantages of using this method:	
		<ul style="list-style-type: none"> • The information can be conveyed concisely, accurately.

Learners can interact with the instructor, ask questions and receive direct feedback using video conference, audio conference or chat.	<ul style="list-style-type: none"> The lecture can be resumed by the student, in order to better understand the information contained. 	
	Difficulty of implementation: 	Approximate duration : 2 hours

Group competition simulation Application of knowledge and skills


Format: Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)	Strongest characteristic of this method:	Allows teachers to monitor if learners are able to apply the theoretical knowledge in a work-related situation.
	Short description:	
	Link to the full description.	
	Students are given a work-related context in groups (e.g. to manage a transport company or to calculate the optimal option for sending shipments from A to B in cooperation with other groups, etc.); the groups compete with each other to find the best solution to the problem.	
	Aspects of the learning objective covered with this method:	
	<p>The simulation allows learners to analyse the most efficient use of resources while producing the most economical routes. By allowing management to alter the data in the model, the simulation will offer a variety of scenarios.</p> <p>The teachers can alter the vehicle data to allow them to select more efficient or larger vehicles to produce more economical routes. By modifying the personnel or modifying their start and finish times, the route can be altered to take advantage of less busy times of day on the freeways. By altering the variables in the model, the most efficient use of the company's resources can be achieved.</p> <p>Teachers can constantly monitor the decisions that affect the simulation allowing changes that offers more reality to the model.</p>	
Recommended tools for this method:		
<p>The teacher should prepare an explanation of the content or a review of it (if the topic has been covered before) before the students start the simulation. Students will look for the information by their own means and the ones suggested by the teacher.</p>		
Tools needed: <ul style="list-style-type: none"> Projector 		

	<ul style="list-style-type: none"> • Simulation Software • Students' laptop or other devices with internet connexion 		
Advantages of using this format:	Advantages of using this method:		
A full or even half-day in a virtual meeting room can be a considerable burden for learners, both physically and mentally. Thus, breaking up training sessions is recommended by integrating additional elements, such as break-out sessions. Smaller groups can work on specific tasks or discuss issues and questions.	<ul style="list-style-type: none"> • Balance between on-screen and off-screen learning is possible. • Extends the attention span of learners. • Offers potential for better integration and transfer of training content. 		
	<table border="1"> <tr> <td> Difficulty of implementation:  </td> <td> Approximate duration: <ul style="list-style-type: none"> - Explaining the simulation: 2 hours - Creation of the group and choosing the role: 15/30 min - Looking for the information: 2 hours - Simulation: it depends on the simulation itself and periods decided by the teacher, but at least 2 sessions per period: 1 hour/session </td> </tr> </table>	Difficulty of implementation: 	Approximate duration: <ul style="list-style-type: none"> - Explaining the simulation: 2 hours - Creation of the group and choosing the role: 15/30 min - Looking for the information: 2 hours - Simulation: it depends on the simulation itself and periods decided by the teacher, but at least 2 sessions per period: 1 hour/session
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Presentation

Knowledge transfer

Format: Virtual classroom training (100% synchronous)	Strongest characteristic of this method:	Debriefing after the group simulation.
	Short description:	
	Link to the full description.	
	A presentation conveys information from a speaker to an audience. Presentations are typically demonstrations, introduction, lecture, or speech meant to inform, persuade, inspire, motivate, build goodwill, or present a new idea/product.	
	Aspects of the learning objective covered with this method:	
	In this scenario, the students prepare the presentation to explain the most important decision made in the group simulation competition (previous method) and the impact of this decision on the results.	
	The other students can ask the presentation group any questions related to their decisions and the results.	

	After the simulation, the presentation can be used as learning material or used for debriefing.	
	Recommended tools for this method:	
	<ul style="list-style-type: none"> • Projector • Presentation tools • Video conference platform • File sharing platform 	
Advantages of using this format:	Advantages of using this method:	
Students can use special software that usually includes a range of synchronous tools such as whiteboard, application sharing, audio conference and chat.	<ul style="list-style-type: none"> • The information can be conveyed concisely, accurately • The presentation can be resumed by the student, to better understand the information contained 	
	Difficulty of implementation: 	Approximate duration: 30 min to 1 hour

Learning objective n°3: To calculate the cost of a specific goods transportation service

Short description of the learning objective:

- To identify and classify the different components of operating costs of transport companies.
- To assign the fixed costs of a transport company using different methodologies.
- To calculate the transport costs for a given period and the costs per unit of service.


For learning objective “Defining the calculation of the cost of a specific goods transportation service”, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Microlearning	<ul style="list-style-type: none"> • Provide learners the aim to contrast information on their own.
2	Case study	<ul style="list-style-type: none"> • Learners get more involved by dealing with real situations • Foster transversal competences. • Foster professional competences.
3	Mind maps	<ul style="list-style-type: none"> • To strength the capability of summarising and having a global vision about concepts dealt.

Microlearning

Knowledge transfer




Format: Flipped classroom (self-study followed by tutor-supported and/or social learning forms)	Strongest characteristic of this method:	Focus on specific knowledge. Anchor learning of theoretical and complex content.
	Short description:	
	Link to the full description.	
	Microlearning consists of open digital and very short training contents (videos of 2-3 minutes, short podcasts, slideshows, knowledge quizzes, ...) to avoid time consuming sessions and allow asynchronous learning.	
	Aspects of the learning objective covered with this method:	
	Students learn more effectively by using class time for small group activities and individual attention. Teachers assign students lecture materials, podcasts, and presentations to be viewed at home or outside of the classroom day.	
	Students will have to select and search for reliable information about the given topic.	

	<p>In the case of costs calculation, which is particularly important, they will learn to define what exactly a cost is through their own resources.</p> <ul style="list-style-type: none"> • Definition of cost and difference with investment. • Distinction between fixed and variable costs. • Giving some examples related to transportation sector. 	
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Internet specialised websites (i.e.; accounting): <ul style="list-style-type: none"> - Freight finders – website to calculate freight costs: https://freightfinders.com/freight-tools/freight-cost-calculator/ - Cost per unit: https://www.shipbob.com/blog/cost-per-unit/ • PDF documents, presentation documents, ... 	
Advantages of using this format:	Advantages of using this method:	
<p>The ideal format to apply is the flipped classroom format; groups of students will be able to work at their own rhythm and will count with tutor help at any moment they may need it.</p>	<ul style="list-style-type: none"> • Allows teacher to monitor whether learners understand the content. • Offers potential for better integration and transfer of training content. 	
	<p>Difficulty of implementation:</p> 	<p>Approximate duration:</p> <p>Preparation time for the students + 1h for the debriefing in class.</p>

Case study

Application of knowledge and skills


<p>Format:</p> <p>Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)</p>	<p>Strongest characteristic of this method:</p>	<p>Analysis of a specific situation or scenario.</p>
	<p>Short description:</p>	
	<p>Link to the full description.</p>	
	<p>A case study is an in-depth, detailed examination of a particular case (or cases) within a real-world context.</p>	
	<p>Aspects of the learning objective covered with this method:</p> <ul style="list-style-type: none"> • The teacher will present a scenario to the students related to the analysis of costs of a goods service transport company. 	

	<ul style="list-style-type: none"> • Students will be divided into groups to make calculations about different costs areas. • There will be a debate where each group will present their results and conclusions. <p>Putting into practice the theory learnt and the calculations made before. Take a step forward through the analysis of a real case.</p>		
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Video conferencing platform that allows to create different rooms. • Online drive to share information • Google classroom • Kahoot 		
<p>Advantages of using this format:</p> <p>The students will be able to work both with their own group and share the results in the common room.</p> <p>Teacher will be able to follow each group and solve any doubt that may appear.</p>	<p>Advantages of using this method:</p> <ul style="list-style-type: none"> • Increase motivation. • Increasing ability to make connections across content areas and view an issue from multiple perspectives. • For trainers, it offers an opportunity to provide instruction while conducting formative evaluation. 		
	<table border="1"> <tr> <td> <p>Difficulty of implementation:</p> <p></p> </td> <td> <p>Approximate duration:</p> <p>A 3-4 hours session.</p> <p>Different sessions to work deeply into the case; about 3 class sessions of 60 minutes.</p> </td> </tr> </table>	<p>Difficulty of implementation:</p> <p></p>	<p>Approximate duration:</p> <p>A 3-4 hours session.</p> <p>Different sessions to work deeply into the case; about 3 class sessions of 60 minutes.</p>
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Mind maps

Note-taking & schematising content

<p>Format:</p> <p>Blended formats (100% digital synchronous and asynchronous learning)</p>	<p>Strongest characteristic of this method:</p>	Facilitates teaching of complex content.
	<p>Short description:</p>	
	<p>Link to the full description.</p>	
	<p>Mind mapping is a structuring method, which shows the (hierarchical) relationship between ideas.</p> <p>As ideas are fleshed out and connected to each other, one can see how concepts tie together to get a better understanding of the subjects that are studied.</p>	
	<p>Aspects of the learning objective covered with this method:</p>	

	<p>After defining the different types of costs that need to be analysed in a freight transport company and after doing several exercises and working with real cases, it is time to make a synthesis.</p> <p>Mind maps are a good tool to set up all the aspects together and have a good vision of the full content of a topic.</p> <p>It can also foster:</p> <ul style="list-style-type: none"> • The creativity of students when presenting a budgeted cost. • Collaborative work that allows to discuss about the main costs to be considered and their calculation. • Summarising the calculation and internal accounting of costs. 	
	<p>Recommended tools for this method:</p>	
	<ul style="list-style-type: none"> • Video Chat platform to create different rooms. • Online applications to develop mind maps: bubbl.us, canvas, padlet, miro, etc. 	
<p>Advantages of using this format:</p>	<p>Advantages of using this method:</p>	
<p>Offers highest didactical potential by mixing and matching training formats and integrating methods best suited to learners' learning objectives.</p> <p>Offers great potential for transfer.</p> <p>Offers a high level for knowledge transfer, competence development and generally retention and transfer of training content.</p>	<ul style="list-style-type: none"> • Helpful for understanding and revision of the topic. • Ideal to identify the most important aspects. • Suitable for group work, since it allows collaborative work. <p>Difficulty of implementation:</p> <div style="text-align: center;">  </div>	<p>Approximate duration: A 1 to 2-hour session.</p>

Learning objective n°4: To define the scheduled times for shipping and arrivals considering optimal driving hours, according to European regulations

Short description of the learning objective:

- To apply the maximum driving time and minimum resting time according to the European Social Regulation.
- To define the availability (based on driving and resting hours) for each of the drivers in the company.


For learning objective “To define the scheduled times for shipping and arrivals considering optimal driving hours, according to European regulations”, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Lectures	<ul style="list-style-type: none"> • Provide learners with knowledge and allow the teacher to monitor whether or not learners understand the content.
2	Kahoot (quizzes) Or The card game (Master of transport)	<ul style="list-style-type: none"> • Evaluate knowledge. • Students review the content review at the same time. • Teachers/trainers can identify topics that need reteaching.
3	Canva	<ul style="list-style-type: none"> • Elaborate study / working material.
4	Problem Based Learning (PBL)	<ul style="list-style-type: none"> • Make learners apply knowledge in a practical way. • The aim of problem-based learning is to engage students in real-world applications and to foster hands-on learning and critical thinking.

Lecture

Knowledge transfer




Format: Virtual classroom training (100% synchronous)	Strongest characteristic of this method:	Facilitates teaching of complex content.
	Short description:	
	Link to the full description.	
	Lectures allow the teacher/trainer to explain the theoretical content which learners need to be able to successfully solve the upcoming activities to be executed. It generally consists of a speech based on a reliable source such as scientific studies, legislation, etc.	

	Aspects of the learning objective covered with this method:	
	European Social Regulation: <ul style="list-style-type: none"> • Maximum driving hours permitted. • Minimum resting times required. • Team driving regulation. • Law infringements. 	
	Recommended tools for this method:	
	<ul style="list-style-type: none"> • Presentation tool. • PDF documents. • Digital blackboards. 	
Advantages of using this format:	Advantages of using this method:	
<p>In synchronous virtual sessions the teacher can share the screen so learners have the necessary information to follow the explanations.</p> <p>Students can virtually raise their hands (in the video conference app), so the teacher is aware they have questions that need to be solved.</p>	<ul style="list-style-type: none"> • Allows the teacher to monitor whether learners understand the contents. 	
	Difficulty of implementation:	Approximate duration:
		30/ 45 minutes

Kahoot


Useful tools

Format: Virtual classroom training (100% synchronous)	Strongest characteristic of this method:	Gamification.
	Short description:	
	Link to the full description.	
	Kahoot is a playful learning platform. With Kahoot you (or your students) can create quizzes, accessible images or videos to be used for questions, and create answer options. The tool has different “game modes”: <ul style="list-style-type: none"> • ‘Quiz mode’, which records the respondents’ answer times as well as their scores. • ‘Discussion mode’, which is a single question mode that helps the class to find an opinion on a particular issue (that 	

	<p>makes Kahoot also suitable for brainstorming or debating).</p>		
	<p>Aspects of the learning objective covered with this method:</p>		
	<p>With Kahoot, students will be able to evaluate and refresh knowledge. That means that first the topic (driving hour regulation, resting time...) should have been explained by the teacher. Depending on the situation, Kahoot could be used as an assessment tool as well.</p>		
	<p>Recommended tools for this method:</p>		
	<ul style="list-style-type: none"> • 'Quizizz' can be a substitute of Kahoot if you want to make this method even more gamified. • Excel to keep record of the answer of each game played. 		
<p>Advantages of using this format:</p>	<p>Advantages of using this method:</p>		
<p>Kahoot is an interesting method when it comes to 100% synchronous virtual training, because it helps keep learners motivated and fosters interaction (it should be played in teams), which are sometimes difficult to achieve in distance learning.</p>	<ul style="list-style-type: none"> • Increases motivation. • Allows to monitor learners progress. • Kahoot is free to use, compatible with almost any device and easy to work with. 		
	<table border="1"> <tr> <td> <p>Difficulty of implementation:</p>  </td> <td> <p>Approximate duration:</p> <p>A 2-hour session. Possible organisation if learners create the questions:</p> <ol style="list-style-type: none"> 1. 20 min: Selecting the most relevant contents to be included in the quiz. 2. 40 min: Creation of the questions. 3. 20 min: Testing the questions (teacher support). 4. 40 min: Playing the Kahoots created. </td> </tr> </table>	<p>Difficulty of implementation:</p> 	<p>Approximate duration:</p> <p>A 2-hour session. Possible organisation if learners create the questions:</p> <ol style="list-style-type: none"> 1. 20 min: Selecting the most relevant contents to be included in the quiz. 2. 40 min: Creation of the questions. 3. 20 min: Testing the questions (teacher support). 4. 40 min: Playing the Kahoots created.
<p>Difficulty of implementation:</p> 	<p>Approximate duration:</p> <p>A 2-hour session. Possible organisation if learners create the questions:</p> <ol style="list-style-type: none"> 1. 20 min: Selecting the most relevant contents to be included in the quiz. 2. 40 min: Creation of the questions. 3. 20 min: Testing the questions (teacher support). 4. 40 min: Playing the Kahoots created. 		

ESR Card game




Application of knowledge and skills

Format: Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)	Strongest characteristic of this method:	Gamification.
	Short description:	
	Link to the full description.	
	This game is an online card game where the goal is to be the first to reach the destination city while respecting the driving and resting times of the European social regulation (ESR). The learners are also confronted with hazards and questions on their knowledge.	
	Aspects of the learning objective covered with this method:	
	With this card game, the learners will have to identify the rules of ESR and apply them by producing a typical journey.	
	Recommended tools for this method:	
	<ul style="list-style-type: none"> • Card game application. • Mobile device or computer. 	
Advantages of using this format:	Advantages of using this method:	
The card game is an interesting method when it comes to 100% synchronous Virtual training, because it helps keep trainers and learners motivated and fosters interaction (it should be played in teams), which are sometimes difficult to achieve in distance learning.	<ul style="list-style-type: none"> • Increases motivation. • Allows to monitor learners progress. • The game is free to use 	
	Difficulty of implementation:	Approximate duration:
		A 1-hour session. 45min for the game 15min for feedbacks

Canva

Useful tools

Format: Self-directed e-learning with tutor support	Strongest characteristic of this method:	Applicability for self-study.
	Short description:	
	Link to the full description.	
	Canva is an application that allows learners to create posters, infographics or presentations related to a specific topic.	


	<p>Everybody can access Canva, since it's free to use and web-based, which allows pupils to use any kind of device to work with it.</p> <p>It's a good tool to foster creativity and help students synthesise the key aspects of the content being taught.</p>		
	<p>Aspects of the learning objective covered with this method:</p> <p>To apply what was previously seen, the teacher asks students to do individual or group work. This work can consist of creating an infographic poster with Canva. It can result in a better understanding of the driving hours legislation. Moreover, the infographic could be used to prepare a hypothetical test or to revise the topic in the future.</p> <p>It is advisable that students start brainstorming which information should be included in the infographic they'll create with Canva. This could either be handwritten or typed in a Google Docs document.</p>		
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Images • Computer • File sharing platform 		
Advantages of using this format:	Advantages of using this method:		
<p>Canva makes a lot of sense in a self-directed learning context. Creating infographics or posters allows students to detect the more relevant points of the content in a creative way, plus it allows the teacher to revise whether or not students understood the topic.</p>	<ul style="list-style-type: none"> • Helpful for understanding and revision of the topic. • Ideal to identify the main points of the legislation. • Suitable for group work, since it allows collaborative work. • Free to use and compatible with all devices. 		
	<table border="1"> <tr> <td> <p>Difficulty of implementation:</p> <p style="text-align: center;"></p> </td> <td> <p>Approximate duration:</p> <p>A 2-hour session.</p> <p>Schedule feedback with the tutor after the creation is done.</p> </td> </tr> </table>	<p>Difficulty of implementation:</p> <p style="text-align: center;"></p>	<p>Approximate duration:</p> <p>A 2-hour session.</p> <p>Schedule feedback with the tutor after the creation is done.</p>
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Problem Based Learning (PBL)

Application of knowledge and skills

<p>Format:</p> <p>Virtual classroom training (synchronous) with synchronous</p>	<p>Strongest characteristic of this method:</p> <p>Appropriate for professional skills development.</p>
	<p>Short description:</p>
	<p>Link to the full description.</p>

<p>break-out sessions (either group sessions or self-study sessions)</p>	<p>Problem Based Learning is a method that challenges students with real life scenarios related to the topic being taught, which need to be solved.</p> <p>This method is normally conceived to be applied in groups, since it requires a brainstorming process in which the more ideas are suggested, the better the solution proposed will be.</p> <p>If possible, it may involve real life actors, such as companies, which can bring present challenges and get interesting feedback from learners in return.</p> <p>The challenges are presented to the students, who study them outside of the class. Either in group or on their own they propose a solution based on their knowledge on European legislation.</p> <p>Later on, back in the virtual class, solutions are presented, and their appropriateness and interest are discussed.</p> <p>Aspects of the learning objective covered with this method:</p> <p>For European Social Regulations, this method could be used with two objectives:</p> <ul style="list-style-type: none"> • Get students to calculate the available driving hours of every driver in a company based on daily and weekly data collected by a tachograph. • Maximise the driving time, using each of the available drivers in the most efficient way, by using a system such as TMS (Transport Management System). <p>Recommended tools for this method:</p> <p>It is not compulsory but absolutely recommended to use a tachograph simulator so, in parallel with calculation of driving time availability, students are asked to understand the information provided by a tachograph ticket.</p>
<p>Advantages of using this format:</p>	<p>Advantages of using this method:</p>
<p>Balance between on-screen and off-screen learning is possible.</p> <p>Extends the attention span of learners.</p> <p>Offers potential for better integration and transfer of training content.</p>	<ul style="list-style-type: none"> • Allows students to deal with real life problems, which they'll encounter in their future jobs. • It's very precise to verify if students understood the legislation and can apply it. • It's ideal to work in groups.

	<p>Difficulty of implementation:</p> <p style="text-align: center;"></p>	<p>Approximate duration:</p> <p>3 to 5 sessions of 2 hours duration.</p> <p>First session: The PBL methodology requires an ideation phase. This means coming up with a solution once the problem to be tackled has been identified. This session could be divided in the following way:</p> <ol style="list-style-type: none"> 1. 20 min: Individual reflexion. 2. 40 min: Group brainstorming. 3. 20 min: Discarting the least viable ideas. 4. 40 min: Developing the most viable idea.
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Learning objective n°5: To apply European social regulations on driving and rest times for truck drivers

Short description of the learning objective:

- To apply daily and weekly driving times.
- To respect daily and weekly breaks and rest periods.
- To consider derogations.




For learning objective “To apply European social regulations on driving and rest times for truck drivers, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Presentation	<ul style="list-style-type: none"> • Develop students’ knowledge.
2	Micro-doing	<ul style="list-style-type: none"> • Appropriate for professional skills development.
3	Quizzes and tests	<ul style="list-style-type: none"> • Increases motivation. • Testing knowledge.

Presentation

Knowledge transfer




Format: Virtual classroom training (100% synchronous)	Strongest characteristic of this method:	Appropriate for theoretic content.
	Short description:	
	Link to the full description.	
	<p>A presentation usually includes organised information on a specific topic.</p> <p>The instructor presents the content to a group of learners, who are connected to the platform at the same time. Learners can interact with the instructor, ask questions and receive feedback using video conference, audio conference or chat.</p>	
	Aspects of the learning objective covered with this method:	
	<p>The trainer will deliver knowledge to the learners on the following topics:</p> <ul style="list-style-type: none"> - Daily and weekly driving times, - Daily and weekly breaks and rest periods, - Derogations. 	
Recommended tools for this method:	<ul style="list-style-type: none"> • Presentations apps. 	

	<ul style="list-style-type: none"> • Video conference platform. • File sharing platform. <p>To increase the efficiency of this method, the trainer can use the storytelling approach for his/her presentation.</p>				
Advantages of using this format:	Advantages of using this method:				
<p>Strongly resembles a natural classroom environment, hence offering great potential for transfer.</p> <p>A lot of direct interaction between the learners and the trainer, so there is a high level of learning control.</p> <p>The transfer effort is comparatively low.</p>	<ul style="list-style-type: none"> • The information can be conveyed concisely, accurately. • The presentation can be resumed by the student to better understand the information it contains. 				
	<table border="1"> <tr> <td>Difficulty of implementation:</td> <td>Approximate duration:</td> </tr> <tr> <td style="text-align: center;"></td> <td>30 minutes</td> </tr> </table>	Difficulty of implementation:	Approximate duration:		30 minutes
Difficulty of implementation:	Approximate duration:				
	30 minutes				

Micro-doing




Application of knowledge and skills

Format: Flipped classroom (self-study followed by tutor-supported and/or social learning forms)	Strongest characteristic of this method:	Appropriate for professional skills development.
	Short description:	
	Link to the full description.	
	<p>Any content consumed is systematically punctuated by a practical exercise, a concrete action to be carried out in a work situation with the aim to progress, by encouraging the practical application of all the knowledge taught.</p> <p>Micro doing is the application of knowledge and skills through the realisation of micro-tasks specific to the training of a learner.</p>	
	Aspects of the learning objective covered with this method:	
	<p>Students exercise to plan a route, to apply the rules regarding driving, rest periods and breaks. First, they work at home, then present the results to the class.</p>	
Recommended tools for this method:		
<p>The trainer gives learners access to the micro-doing exercises or links to resources available online.</p>		
Advantages of using this format:	Advantages of using this method:	
	<ul style="list-style-type: none"> • Time optimisation • Encourage learners' autonomy 	

<p>Balance between on-screen and off-screen learning is possible.</p> <p>Extends the attention span of learners.</p> <p>Offers potential for better integration and transfer of training content.</p>	<ul style="list-style-type: none"> • Straight to the point • Proactivity of the learners 	
	<table border="1"> <tr> <td> Difficulty of implementation:  </td> <td> Approximate duration: 20 minutes </td> </tr> </table>	Difficulty of implementation: 
Difficulty of implementation: 	Approximate duration: 20 minutes	

ESR Card game

Application of knowledge and skills

<p>Format:</p> <p>Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)</p>	<p>Strongest characteristic of this method:</p> <p>Increase motivation. Gamification.</p>		
	<p>Short description:</p> <p>Link to the full description.</p> <p>This game is an online card game where the goal is to be the first to reach the destination city while respecting the driving and resting times of the European social regulation (ESR). The learners are also confronted with hazards and questions on their knowledge.</p>		
	<p>Aspects of the learning objective covered with this method:</p> <p>With this card game, the learners will have to identify the rules of ESR and apply them by producing a typical journey.</p>		
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Card game application. • Mobile device or computer. 		
	<p>Advantages of using this method:</p> <ul style="list-style-type: none"> • Activates and motivates the participants. • The participants and the trainer can easily assess the learning progress and knowledge deficits. • The participants have fun during the implementation. 		
<p>Advantages of using this format:</p> <p>The card game is an interesting method when it comes to 100% synchronous Virtual training, because it helps keep trainers and learners motivated and fosters interaction (it should be played in teams), which are sometimes difficult to achieve in distance learning.</p>	<table border="1"> <tr> <td> Difficulty of implementation:  </td> <td> Approximate duration: 45 min for the game. 15 min for the final feedback. </td> </tr> </table>	Difficulty of implementation: 	Approximate duration: 45 min for the game. 15 min for the final feedback.
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Learning objective n°6: To apply European cabotage rules

Short description of the learning objective:

- To define the general principle of cabotage.
- To respect the rules applicable to cabotage operations.
- To fill documents on board.
- To respect safeguard procedures.


For learning objective “To apply European Cabotage rules”, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Quizzes and tests	<ul style="list-style-type: none"> • Assessment of prior knowledge.
2	Sketchnoting	<ul style="list-style-type: none"> • Graphical method to organize information and help to understand complex content.
3	Case study / Scenario exercises	<ul style="list-style-type: none"> • Appropriate for professional skills development.

Quizzes and tests


Testing knowledge

Format: Virtual classroom training (100% synchronous)	Strongest characteristic of this method:	Assessment of prior knowledge.
	Short description:	
	Link to the full description.	
	Assessment or repetition of knowledge. Quizzes/tests can also be used at the beginning of a training process to check the knowledge.	
	Aspects of the learning objective covered with this method:	
	The teacher prepares some questions regarding cabotage rules. Then the learners answer it in a quiz or test tool, to assess the prior knowledge of the students.	
	Recommended tools for this method:	
	Online tool: Kahoot, Quizizz, google forms...	
Advantages of using this format:	Advantages of using this method:	
	<ul style="list-style-type: none"> • Easy to implement. • Suitable to activating and motivating students. 	

The transfer effort is comparatively low.		
	Difficulty of implementation: 	Approximate duration: 10 min

Sketchnoting

Note-taking and schematising content

Format: Virtual classroom training (100% synchronous)	Strongest characteristic of this method:	Facilitates teaching and complex content.
	Short description:	
	Link to the full description.	
	Sketchnoting is a form of note-taking. Ideas are synthesised by scribbling diagrams, words, illustrations and characters, banners and speech bubbles. It involves bringing more visuals into the process compared to typical note-taking.	
	Aspects of the learning objective covered with this method: <ul style="list-style-type: none"> • Definition • General principle • Rules applicable to cabotage operations • Documents on board • Safeguard procedure 	
Recommended tools for this method:		<ul style="list-style-type: none"> • Whiteboard or Sketchboard digital platform - https://sketchboard.io/
Advantages of using this format:	Advantages of using this method:	
Strongly resembles a natural classroom environment, hence offering great potential for transfer. A lot of direct interaction between the learners and the trainer, so there is a high level of learning control. The transfer effort is comparatively low.	<ul style="list-style-type: none"> • Facilitates the memorization of learners. • Keeps learners focused and captivated. • Simple to use and fun. 	
	Difficulty of implementation: 	Approximate duration: 45 min

Format: Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)	Strongest characteristic of this method:		Appropriate for professional skills development.
	Short description:		
	Link to the full description.		
	A case study is an in-depth, detailed examination of a particular case (or cases) within a real-world context. Through case-based learning, students are the ones asking questions about the case, doing the problem-solving, interacting with and learning from their peers, analysing the case and summarising the case. The case method bridges theory to practice, and promotes the development of skills including: communication, active listening, critical thinking, decision-making, and metacognitive skills, as students apply course content knowledge, reflect on what they know and their approach to analysing, and make sense of a case.		
	Aspects of the learning objective covered with this method:		
	<ul style="list-style-type: none"> • Rules applicable to cabotage operations. • Documents on board. 		
Recommended tools for this method:			
<ul style="list-style-type: none"> • Video conference platform. • File sharing platform. • LMS (learning management system). 			
Advantages of using this format:		Advantages of using this method:	
Balance between on-screen and off-screen learning is possible. Extends the attention span of learners. Offers potential for better integration and transfer of training content.		<ul style="list-style-type: none"> • Deeper student understanding of concepts. • Increasing ability to make connections across content areas and view an issue from multiple perspectives. • For trainers, it offers an opportunity to provide instruction while conducting formative evaluation. 	
		Difficulty of implementation: 	Approximate duration: 30 – 60 min

Learning objective n°7: To know the requirements for engagement in the occupation of road transport operator

Short description of the learning objective:

- To know the conditions relating to the requirement of establishment.
- To know the conditions relating to the requirement of good repute.
- To know the conditions relating to the requirement of financial standing.
- To know the conditions relating to the requirement of professional competence.




For learning objective “To know the requirements for engagement in the occupation of road transport operator”, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/ tool	Reason why these methods/tools were chosen
1	Microlearning	<ul style="list-style-type: none"> • Present complex information to the learner in small chunks.
2	Jigsaw	<ul style="list-style-type: none"> • Facilitates teaching of complex content by sequencing.
3	World café	<ul style="list-style-type: none"> • Allows to repeat/discuss the different criteria. • Appropriate for social-communicative competences.
4	Peer to peer assessment	<ul style="list-style-type: none"> • Appropriate for assessing learning progress / competence development.

Microlearning

Knowledge transfer




Format: Self-directed e-learning with tutor support	Strongest characteristic of this method:	Appropriate method to divide the content into short sequences.
	Short description:	
	Link to the full description.	
	Microlearning consists of open digital and very short training contents (videos of 2-3 minutes, short podcasts, slideshows, knowledge quizzes...) to avoid time consuming sessions and allow asynchronous learning. It is appropriate for theoretic content.	
	Aspects of the learning objective covered with this method:	
	Students learn more effectively by using class time for small group activities and individual attention. Teachers assign students lecture materials, podcasts, and presentations to be viewed at home or outside of the classroom day.	

	<p>Students will have to select and search for reliable information about given topics.</p> <ul style="list-style-type: none"> • Conditions relating to the requirement of establishment, • Conditions relating to the requirement of good repute, • Conditions relating to the requirement of financial standing, • Conditions relating to the requirement of professional competence. 		
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • PDF documents, Presentations documents... • File sharing platform 		
<p>Advantages of using this format:</p> <p>Flexible in terms of pace and time of learning for the learners.</p> <p>Offers greater flexibility to respond to individual learners' needs.</p>	<p>Advantages of using this method:</p> <ul style="list-style-type: none"> • Time optimisation. • Learners have open access to the educational content and can come back to it as often as they need to. • Encourages learners' autonomy. • Microlearning can facilitate teaching of complex content by sequencing. 		
	<table border="1"> <tr> <td> <p>Difficulty of implementation:</p> <p style="text-align: center;"></p> </td> <td> <p>Approximate duration:</p> <p>1h</p> </td> </tr> </table>	<p>Difficulty of implementation:</p> <p style="text-align: center;"></p>	<p>Approximate duration:</p> <p>1h</p>
<p>Difficulty of implementation:</p> <p style="text-align: center;"></p>	<p>Approximate duration:</p> <p>1h</p>		

Jigsaw

Empower students to learn in an active way




<p>Format:</p> <p>Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)</p>	<p>Strongest characteristic of this method:</p>	Facilitates teaching of complex content by sequencing.
	<p>Short description:</p>	
	<p>Link to the full description.</p>	
	<p>Jigsaw is a method that emphasises peer learning by dividing the labour of learning among small groups of students.</p> <p>The jigsaw group arrangement allows students to help each other understand the treated topics by apportioning the work of learning – each student in a small group is responsible for acquiring expertise about a different topic, theory, or reading, and sharing their expertise with the others in the group.</p>	
	<p>Aspects of the learning objective covered with this method:</p>	<ul style="list-style-type: none"> • Conditions relating to the requirement of establishment.

	<ul style="list-style-type: none"> • Conditions relating to the requirement of good repute. • Conditions relating to the requirement of financial standing. • Conditions relating to the requirement of professional competence. 		
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Video conferencing tools. • Use of a software that enables the learners to work together in breakout sessions. They should be able to share their screen and to work together on one document/ presentation, e.g. via Google docs. 		
Advantages of using this format:	Advantages of using this method:		
Smaller groups can work on specific tasks or discuss issues and questions. Offers potential for better integration and transfer of training content.	<ul style="list-style-type: none"> • Encourages students to listen to each other, to work as a team and to have a social engagement. • Activates/motivates the learners. 		
	<table border="1"> <tr> <td>Difficulty of implementation: </td> <td>Approximate duration: The duration depends on the content and the number of expert groups</td> </tr> </table>	Difficulty of implementation: 	Approximate duration: The duration depends on the content and the number of expert groups
Difficulty of implementation: 	Approximate duration: The duration depends on the content and the number of expert groups		

World café


Foster collective intelligence

Format: Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)	Strongest characteristic of this method:	Appropriate for social-communicative competences.
	Short description:	
	Link to the full description.	
	Ask learners to work in groups of 4/5 at tables/virtual spaces to come up with proposals on a particular topic. Learners then switch tables/virtual spaces periodically to add to and develop each other's ideas. Ideas, questions, and topics are linked together as participants move from one exchange to the next. By the end of the second round, all tables or dialogue groups have been cross-fertilized with ideas from the previous round.	
	Aspects of the learning objective covered with this method:	
	<ul style="list-style-type: none"> • Conditions relating to the requirement of establishment, • Conditions relating to the requirement of good repute, • Conditions relating to the requirement of financial standing, 	

	<ul style="list-style-type: none"> • Conditions relating to the requirement of professional competence. 				
	Recommended tools for this method:				
	<ul style="list-style-type: none"> • Video conferencing tools with virtual rooms. • Using a digital whiteboard tool (e.g. Klaxoon https://klaxoon.com) can be useful to collect the groups' ideas. 				
Advantages of using this format:	Advantages of using this method:				
Strongly resembles a natural classroom environment, offering great potential for transfer.	<ul style="list-style-type: none"> • Allows learners to exchange with each other. • Allows group emulation, development of ideas and knowledge sharing. • Stimulates innovative thinking. • Allows analysis of action possibilities in relation to topics and issues. 				
	<table border="1"> <tr> <td>Difficulty of implementation:</td> <td>Approximate duration:</td> </tr> <tr> <td style="text-align: center;">  </td> <td>1h</td> </tr> </table>	Difficulty of implementation:	Approximate duration:		1h
Difficulty of implementation:	Approximate duration:				
	1h				

Peer to peer assessment Empower students to learn in an active way

Format: Blended formats (digital training and face-to-face training)	Strongest characteristic of this method:	Appropriate for assessing learning progress / competence development.
	Short description:	
	Link to the full description.	
	Students assess their peers' results/productions. This method also makes all students revise the content worked on throughout a lesson/ course.	
	Aspects of the learning objective covered with this method:	
	This method is useful to evaluate student's knowledge and understanding.	
	Recommended tools for this method:	<ul style="list-style-type: none"> • Video conferencing tools • Presentation apps
Advantages of using this format:	Advantages of using this method:	
	<ul style="list-style-type: none"> • Increases motivation. 	

<p>Offers high didactical potential by combining training formats and integrating methods best suited to learners' learning objectives.</p> <p>Possibility to activate participants and raise motivation and learners' engagement for digital training during or before face-to-face training.</p>	<ul style="list-style-type: none"> • Gives responsibility to the students. • In the case of group work: Allows the teacher to check whether students can work in collaborative groups. 	
	<p>Difficulty of implementation:</p> <p style="text-align: center;"></p>	<p>Approximate duration:</p> <p>1h</p>

2.2 Management of assets and technology considering environmental, social and economic challenges

Learning objective n°1: To select suitable transport equipment

Short description of the learning objective:

- To choose the right kind of vehicle.
- To choose the right kind of accessories for your vehicle.




For learning objective “To select suitable transport equipment”, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/tool	Reason why these methods/tools were chosen
1	PowerPoint presentations with voice recording	<ul style="list-style-type: none"> • Développer les connaissances des étudiants.
2	Learning videos	<ul style="list-style-type: none"> • Raising motivation of the learners. • Review what has been learned from the presentations.
3	Forums	<ul style="list-style-type: none"> • Allows learners to revise what they have learned thanks to the exchanges and discussions in the forum. • Appropriate for social-communicative competences.

PowerPoint presentations with voice recordings

Knowledge transfer




Format: Self-directed e-learning with tutor support	Strongest characteristic of this method:	Scaffolding methods for supporting highly self-directed learning formats.
	Short description:	
	Link to the full description.	
	The learners receive a PowerPoint Presentation in which the trainer explains the content via voice recordings.	
	Aspects of the learning objective covered with this method:	
	The trainer prepares a presentation regarding the vehicle types and their accessories. He/she produces voice recordings and inserts them into the presentation. Then the learners will have to study and listen to the presentation. The learners can watch the presentation whenever they want.	
Recommended tools for this method:	<ul style="list-style-type: none"> • Video platform 	

	<ul style="list-style-type: none"> • Presentation apps • Email or communication channel 				
Advantages of using this format:	Advantages of using this method:				
Flexible in terms of pace and time of learning for the learners. Offers greater flexibility to respond to individual learners' needs.	<ul style="list-style-type: none"> • Flexibility: the learners can study when and where they want. • Much knowledge can be taught. • It is not necessary that teacher and learners find an appointment. 				
	<table border="1"> <tr> <td>Difficulty of implementation:</td> <td>Approximate duration:</td> </tr> <tr> <td style="text-align: center;"></td> <td>The duration depends on the number of slides and the length of the voice recordings.</td> </tr> </table>	Difficulty of implementation:	Approximate duration:		The duration depends on the number of slides and the length of the voice recordings.
Difficulty of implementation:	Approximate duration:				
	The duration depends on the number of slides and the length of the voice recordings.				

Learning videos

Knowledge transfer


Format: Self-directed e-learning with tutor support	Strongest characteristic of this method:	Applicability for self-study. Raising motivation.
	Short description:	
	Link to the full description.	
		Learning videos with activating questions and elements that test learning (H5P) can be used to repeat content learned before and practice different protocols, procedures and processes.
	Aspects of the learning objective covered with this method:	
		Such learning videos can be used by students who become acquainted with the vehicle and its components, for example. The learner watches a video showing vehicles and their components. Then they watch a video of a transport manager who has to choose vehicles regarding some criteria (e.g type of goods). The learner must consider the right choices and the correct steps in the action. The video automatically stops at different situations and asks the learner questions about the situation. The learner responds and is informed of the correct / incorrect answer immediately.
	Recommended tools for this method:	
	<ul style="list-style-type: none"> • Video platform • Moodle • H5P 	

	<ul style="list-style-type: none"> Another useful tool can be, for example, the use of the Padlet platform, to raise awareness and answer the question “What happens next?”, etc 				
Advantages of using this format:	Advantages of using this method:				
Flexible in terms of pace and time of learning for the learners.	<ul style="list-style-type: none"> Suitable for both beginners and for reviewing content. Confirms memorising the operating protocol. 				
Clear course framework.	<table border="1"> <tr> <td>Difficulty of implementation:</td> <td>Approximate duration:</td> </tr> <tr> <td style="text-align: center;"></td> <td>Implementation is quick and easy. Depends on the length of the videos.</td> </tr> </table>	Difficulty of implementation:	Approximate duration:		Implementation is quick and easy. Depends on the length of the videos.
Difficulty of implementation:	Approximate duration:				
	Implementation is quick and easy. Depends on the length of the videos.				
One trainer is enough to supervise many learners.					

Forums

Empower students to learn in an active way

Format: Flipped classroom (self-study followed by tutor-supported and/or social learning forms)	Strongest characteristic of this method:	Appropriate for social-communicative competences.
	Short description:	
	Link to the full description.	
	The forum space is usually part of a virtual learning environment such as Moodle. The idea is to exchange points of view on a specific issue in an online forum.	
	Aspects of the learning objective covered with this method:	
	The teacher presents information about transport equipment. The students join a forum in a virtual learning environment (such as eCampus, Padlet, social media). Each student writes a post on his/her opinion on the topic. Students are encouraged to interact with their colleagues’ posts in order to discuss, compare. A poll could be created in order to pick the best posts on the forum.	
	Recommended tools for this method:	
<ul style="list-style-type: none"> Moodle eCampus Forum discussion platforms and tools Padlet Social media 		
Advantages of using this format:	Advantages of using this method:	

<p>Trainers can focus on practical issues = quality improvement.</p> <p>Get the most out of the valuable time with the trainer.</p> <p>Promotes the transfer of learning into practice.</p> <p>High flexibility in terms of individual learning speed and timing.</p>	<ul style="list-style-type: none"> • Enhances students' writing skills • Suitable in any learning situation 	
	<p>Difficulty of implementation:</p> <p style="text-align: center;"></p>	<p>Approximate duration:</p> <p>Depending on the topic, but approximately a complete session of about 2 hours</p>

Learning objective n°2: To reduce the environmental impact of transport operations

Short description of the learning objective:

- To know the environmental impact of transport and logistics.
- To discuss and to compare ways to minimise the environmental impact of transport/logistic activities.
- To assess the environmental impact of the transport/logistic activity.




For learning objective “**To reduce the environmental impact of transport operations**”, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Expert groups and peer learning groups	<ul style="list-style-type: none"> • Facilitates teaching of complex content and appropriate for professional skills development.
2	Forums	<ul style="list-style-type: none"> • Fosters social-communicative competencies and can assist the following method (goal-based scenario).
3	Goal-based scenario	<ul style="list-style-type: none"> • Helps deliver theoretic content and work on attitudes.

Expert groups and peer learning groups

Empower students to learn in an active way


<p>Format:</p> <p>Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)</p>	<p>Strongest characteristic of this method:</p>	<p>Facilitates teaching of complex content. Appropriate for professional skills development.</p>
	<p>Short description:</p>	
	<p>Link to the full description.</p>	
	<p>This method (also called ‘Jigsaw’) allows peer learning and peer exchange by apportioning the work of learning – each student in a small group is responsible for acquiring expertise about a topic and sharing it with the other group members.</p>	
	<p>Aspects of the learning objective covered with this method:</p> <p>The trainer prepares information material for each expert group, sends the appropriate information material to the group members (e.g. in the chat, via email, or with a link to a cloud) and starts breakout sessions.</p> <p>The expert groups meet in breakout rooms and identify the most important information. They must understand the topic to explain</p>	

	<p>it later to their peers. The expert group members work together on a little presentation or a document with notes about their topic.</p> <p>In the second part of this method, the learners meet in breakout sessions in peer learning groups. In every peer learning group, there is one member of each expert group. The experts of each topic now explain what they learned to their peers, with the help of the presentation/notes of the expert group. The time for each expert to present should be limited (e.g. 7 minutes). In this way, every learner can learn something about every topic.</p> <p>Students can obtain different aspects and perspectives on the environmental impact of transport and logistics. They assess the environmental impact of the transport/logistic activities.</p>				
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Conference tool with break out session options • Presentations/ notes tools (e.g.: Padlet). 				
Advantages of using this format:	Advantages of using this method:				
Offers potential for better integration and transfer of training content.	<ul style="list-style-type: none"> • Encourages students to listen to each other, to work as a team, and have a social engagement • Students practice presenting themselves as experts. They must learn the content to present it, they practice communication skills. 				
	<table border="1"> <tr> <td>Difficulty of implementation:</td> <td>Approximate duration:</td> </tr> <tr> <td style="text-align: center;">  </td> <td>The duration depends on the content and the number of expert groups.</td> </tr> </table>	Difficulty of implementation:	Approximate duration:		The duration depends on the content and the number of expert groups.
Difficulty of implementation:	Approximate duration:				
	The duration depends on the content and the number of expert groups.				

Forums

Empower students to learn in an active way


<p>Format:</p> <p>Flipped classroom (self-study followed by tutor-supported and/or social learning forms)</p>	Strongest characteristic of this method:	Appropriate for social communicative competences.
	Short description:	
	Link to the full description.	
	<p>The forum space is usually part of a virtual learning environment such as Moodle.</p> <p>The idea is to exchange points of view on a specific issue in an online forum.</p>	
	Aspects of the learning objective covered with this method:	

	<p>The teacher presents information about the impact of transport in global warming. The students join a forum in a virtual learning environment (such as eCampus, Padlet, social media). Each student writes a post on his/her opinion on the topic.</p> <p>Students discuss, compare, assess ways to minimise the environmental impact of transport/logistic activities and present their acquired expertise.</p>	
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Moodle • Forum discussion platforms and tools • Padlet • Social media 	
<p>Advantages of using this format:</p> <p>Promotes the transfer of learning into practice.</p> <p>High flexibility in terms of individual learning speed and timing.</p>	<p>Advantages of using this method:</p> <ul style="list-style-type: none"> • Enhances students' writing skills • Suitable in any learning situation • Method allows for the exchanging of point of views on environmental issues and the environmental impact of the transport/logistic sector 	
	<p>Difficulty of implementation:</p> 	<p>Approximate duration:</p> <p>Depending on the topic, but approximately a complete session of about 2 hours</p>

Goal-based scenario

Application of knowledge and skills

<p>Format:</p> <p>Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)</p>	<p>Strongest characteristic of this method:</p>	Appropriate for theoretic content/ working on attitudes.
	<p>Short description:</p>	
	<p>Link to the full description.</p>	
	<p>Method that promotes skills and the learning of factual knowledge in the context of possible applications. For this purpose, tasks similar to real-life problem are developed. Learners must deal with outside the learning environments.</p>	
	<p>Aspects of the learning objective covered with this method:</p> <p>The trainer prepares a task with a cover story like the problems learners might face in real life (e.g., develop a transport offer with a minimal CO2 impact). The instructor must also prepare all the materials that the students will need to complete the task.</p>	

	In small groups, students discuss and compare ways to minimise the environmental impact of transport/logistic activities.	
	Recommended tools for this method:	
	<ul style="list-style-type: none"> • Online conference tools (Zoom, jitsi, teams...) 	
Advantages of using this format:	Advantages of using this method:	
<p>Strongly resembles a natural classroom environment, hence offering great potential for transfer.</p> <p>A lot of direct interaction between the learners and the trainer, so there is a high level of learning control.</p>	<ul style="list-style-type: none"> • Skills and knowledge can be improved. • Highly motivating method. • High practical relevance. 	
	Difficulty of implementation: 	Approximate duration: The duration depends very much on the mission. It can take one hour, but a bigger mission could also be accomplished in several training sessions.

Learning objective n°3: To ensure the security of data

Short description of the learning objective:

- The students respect the confidentiality of data and information.
- The students can explain relevant aspects of information systems dedicated to transport and logistics.

For learning objective “To ensure the security of data”, the e-ManTRA team suggests the following combination of formats, methods and tools:




N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Presentation	<ul style="list-style-type: none"> • Easy to deliver knowledge. • Easy to pass on/ share with colleagues.
2	Quizzes & tests	<ul style="list-style-type: none"> • Raises motivation.
3	Microlearning	<ul style="list-style-type: none"> • Allows focusing on specific knowledge areas through small learning units. • Strengthens transversal competences (e.g., autonomy, organisation).

For this learning objective, self-paced learning is appropriate to acquire the knowledge regarding the security of data, there is no need for direct interaction, that’s why we suggest using this scenario in self-directed e-learning format (100% autonomous).

Presentation

Knowledge transfer


Format: Self-directed e-learning (100% autonomous).	Strongest characteristic of this method:	Facilitates teaching of complex content.
	Short description:	
	Link to the full description.	
	A presentation conveys information from a speaker to an audience. Presentations are typically demonstrations, introduction, lecture, or speech meant to inform, persuade, inspire, motivate, build goodwill, or present a new idea/product. The presentation can be delivered as learning material. Students access it through file sharing platform.	
	Aspects of the learning objective covered with this method:	

	<p>Instead of delivering the course with the help of the presentation, the presentation is used here as a learning material provided to the learners.</p> <p>The presentation should cover relevant aspects of information systems for transport and logistics and the importance of respecting the confidentiality of data and information.</p>				
	<p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Presentation apps • Video conference platform • File sharing platform 				
Advantages of using this format:	Advantages of using this method:				
Self-paced learning is appropriate to acquire this kind of knowledge, there is no need for direct interaction.	<ul style="list-style-type: none"> • The information can be conveyed concisely, accurately. • This method allows for an easy transfer of knowledge on a given topic to acquire new information on data security. It helps to sensitize learners and influence their attitude towards this important subject. 				
	<table border="1"> <tr> <td>Difficulty of implementation:</td> <td>Approximate duration:</td> </tr> <tr> <td style="text-align: center;"></td> <td>20 min per presentation.</td> </tr> </table>	Difficulty of implementation:	Approximate duration:		20 min per presentation.
Difficulty of implementation:	Approximate duration:				
	20 min per presentation.				

Quizzes and tests

Testing knowledge


<p>Format:</p> <p>Self-directed e-learning (100% autonomous)</p>	Strongest characteristic of this method:	Raising motivation.
	Short description:	
	Link to the full description.	
	<p>Assessment or repetition of knowledge.</p> <p>Quizzes/tests can also be used at the beginning of a training process to check the knowledge.</p>	
	Aspects of the learning objective covered with this method:	
	<p>The teacher prepares some questions regarding the security of data. Then the learners answer it in a quiz or test tool, to assess the prior knowledge of the students.</p>	
Recommended tools for this method:		
<p>Online tool: Kahoot, Quizizz, google forms, Jeopardy, Multiple choice.</p>		

Advantages of using this format:	Advantages of using this method:	
Flexible in terms of pace and time of learning for the learners.	<ul style="list-style-type: none"> • Easy to implement. • Suitable to activating and motivating students. • Participants and the trainer can easily assess the learning progress and knowledge deficits. • Appropriate for theoretical content. 	
	Difficulty of implementation: 	Approximate duration: 15/30min per quiz/test

Microlearning (100% autonomous)

Knowledge transfer

Format: Self-directed e-learning (100% autonomous)	Strongest characteristic of this method:	Appropriate for self-competence (e.g. autonomy, organisation).
	Short description:	
	Link to the full description.	
	Microlearning consists of open digital and very short training contents (videos of 2-3 minutes, short podcasts, slideshows, knowledge quizzes...) to avoid time consuming sessions and allow asynchronous learning. Its focus is on specific knowledge areas through small learning units and short-term learning activities.	
	Aspects of the learning objective covered with this method:	
	Two ways of using microlearning for self-directed e-learning: 1. To anchor the learning of theoretical and complex content. 2. Create a link between the theoretical contents of the training and the reality in the field Regarding our learning objective, the idea is to cover theoretical content and anticipatory behaviour to ensure data security in an effective manner.	
Recommended tools for this method:		
<ul style="list-style-type: none"> • Interactive videos (H5P) • Interactive tools 		
Advantages of using this format:	Advantages of using this method:	

Flexible in terms of pace and time of learning for the learners.	<ul style="list-style-type: none"> The method anchors the learning of theoretical and complex content in a time effective and entertaining manner. 	
	Difficulty of implementation: 	Approximate duration: Units of 2-10 min for students; preparation time depending on content & development 30-60 min (try to find existing videos and work with them; plan more preptime when creating own videos).

2.3 Team management

Learning scenario n°1: To know working time legislation

Short description of the learning objective:

- To know the supervisor's responsibilities in terms of working time legislation from a legal point of view.

For learning objective "To know working time legislation", the e-ManTRA team suggests the following combination of formats, methods and tools:




N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Lecture	<ul style="list-style-type: none"> Facilitates teaching of complex content.
2	360 pics and interactions	<ul style="list-style-type: none"> Appropriate for professional skills development. Applicability for self-study.
3	Micro-doing	<ul style="list-style-type: none"> Appropriate for assessing learning progress / competence development.

This scenario suggests learning some practical case examples from the reading of legislation and to study some hints from previous cases.

Lecture

Knowledge transfer


Format: Blended formats (digital training and face-to-face training)	Strongest characteristic of this method:	Facilitates teaching of complex content.
	Short description:	
	Link to the full description.	
	The training setting of online lectures is quite similar to a classroom setting, but teachers need to consider some specificities to ensure successful lectures at a distance: The duration of the sessions must be adapted, the concentration span in remote settings is shorter than in class! More regular breaks are necessary.	
	Aspects of the learning objective covered with this method:	
	The teacher prepares the explanation regarding the time legislation and organises it in short bits of approximately 20 minutes. He/ she presents it to the students.	

	<p>The teacher should make the students active and involve them through questions, discussions, etc.</p> <p>This topic involves a lot of legislation and legal text, so careful discussion of the topic with the learners is important. The text of the law must also be presented exactly as it is written.</p> <p>After the lecture, a debriefing session can be organized to answer questions.</p>				
	<p>Recommended tools for this method:</p> <p>The trainer can use various tools for:</p> <ul style="list-style-type: none"> • Presentation, documentation and visualisation • Collaborative knowledge construction • Quizzes <p>For the remote part:</p> <ul style="list-style-type: none"> • Video conference platform • File sharing platform • H5P materials 				
Advantages of using this format:	Advantages of using this method:				
Offers a high level for knowledge transfer, competence development and generally retention and transfer of training content.	<ul style="list-style-type: none"> • Allows the teacher to monitor whether or not learners understand the contents. • The visual presentation of legal issues is the clearest and can be supplemented by a professional trainer with his or her own voice. 				
	<table border="1"> <tr> <td>Difficulty of implementation:</td> <td>Approximate duration:</td> </tr> <tr> <td style="text-align: center;"></td> <td> <p>Depends on the content.</p> <p>In remote settings, it is important to have short sessions and regular breaks.</p> </td> </tr> </table>	Difficulty of implementation:	Approximate duration:		<p>Depends on the content.</p> <p>In remote settings, it is important to have short sessions and regular breaks.</p>
Difficulty of implementation:	Approximate duration:				
	<p>Depends on the content.</p> <p>In remote settings, it is important to have short sessions and regular breaks.</p>				

360 pics and interactions

Knowledge transfer




Format: Blended formats (digital training and face-to-face training)	Strongest characteristic of this method:	Appropriate for professional skills development.
	Short description:	
	Link to the full description.	
	<p>By using 360 pictures and interactions, trainers can create an immersive learning experience.</p> <p>The goal for the students is to connect the study of the picture and the theory with the real working environment.</p>	

	Aspects of the learning objective covered with this method:	
	<p>For transport managers, analysis of tachograph data is a key element in ensuring compliance with regulations on tachographs and driver hours (e.g. exceeding driving hours, missing rest periods and insufficient breaks).</p> <p>For working time legislation, trainers can show a pic of a tachograph and ask students to analyse it.</p> <p>The image can be used in many ways in both the classroom and online implementation. The image allows the student to study independently (e.g. in Moodle) and to practice.</p>	
	Recommended tools for this method:	
	<ul style="list-style-type: none"> • www.thinglink.com (fee required, but can be tried for free). • H5P: www.h5p.org (free under certain conditions) The strength of H5P is to include interactions in images or to create simple tasks. • Pictures / Interactive image. 	
Advantages of using this format:	Advantages of using this method:	
Offers a high level for knowledge transfer, competence development and generally retention and transfer of training content.	<ul style="list-style-type: none"> • Everyone can practice at one's speed. • Does not require much technical expertise. • There is no place or time limit. • Easy to prepare and the trainer can create a lot of different exercises. 	
	Difficulty of implementation: 	Approximate duration: 1 hour

Micro-doing

Application of knowledge and skills

Format: Self-directed e-learning (100% autonomous)	Strongest characteristic of this method:	Appropriate for assessing learning progress / competence development.
	Short description:	
	Link to the full description.	
	Any content consumed is systematically punctuated by a practical exercise, a concrete action to be carried out in a work situation with the aim to progress, by encouraging the practical application of all the knowledge taught.	

	<p>Micro doing is the application of knowledge and skills through the realisation of micro-tasks specific to the training of a learner.</p> <p>As micro-doing is proposed here for self-directed e-learning, the trainer must make sure to provide the learners with a detailed and precise explanatory framework including all access links to the exercises.</p>		
	<p>Aspects of the learning objective covered with this method:</p>		
	<p>The trainer gives learners access to the micro-doing exercises or links to resources available online.</p> <p>Here are some examples on the topic on working time regulation:</p> <ul style="list-style-type: none"> - Organise a transport schedule for the company's drivers. The learners is provided with information regarding drivers (Number of hours already driven, number of rests,) and transport orders to be allocated (duration, destination...). - Each step in the organisation is one micro-doing unit. <p>In self-directed e-learning, it is important to evaluate each micro-doing, at least in a light way, so the learner can situate him/herself.</p>		
	<p>Recommended tools for this method:</p>		
	<ul style="list-style-type: none"> • Presentation, PDF documents... • Sharing documents platform 		
<p>Advantages of using this format:</p>	<p>Advantages of using this method:</p>		
<p>Flexible in terms of pace and time of learning for the learners.</p> <p>Clear course framework.</p>	<ul style="list-style-type: none"> • Time optimisation. • Encourage learners' autonomy. • Straight to the point. • Proactivity of the learners. 		
<p>Learning analytics facilitates the trainers' work and assesses student progress.</p>	<table border="1" style="width: 100%;"> <tr> <td> <p>Difficulty of implementation:</p> <div style="text-align: center;">  </div> </td> <td> <p>Approximate duration:</p> <p>Short sequences of 2-10 min max</p> </td> </tr> </table>	<p>Difficulty of implementation:</p> <div style="text-align: center;">  </div>	<p>Approximate duration:</p> <p>Short sequences of 2-10 min max</p>
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Learning scenario n°2: To plan shifts and resources

Short description of the learning objective:

- To effectively plan the use of personnel and equipment.
- To manage staff competency.




For learning objective “**To plan shifts and resources**”, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Case study	<ul style="list-style-type: none"> • The case study helps learners to learn difficult content. • Fosters professional competences.
2	Group discussion	<ul style="list-style-type: none"> • Appropriate for social communicative competences.
3	Quizzes and test	<ul style="list-style-type: none"> • Appropriate for assessing learning progress / competence development.

Case study

Application of knowledge and skills


Format: Blended formats (100% digital synchronous and asynchronous learning)	Strongest characteristic of this method:	Facilitates teaching and learning of complex content.
	Short description:	
	Link to the full description.	
	A case study is an in-depth, detailed examination of a particular case (or cases) within a real-world context. It's a challenging situation where learners are required to make decisions by choosing from different options.	
	Aspects of the learning objective covered with this method:	
	This method could provide good examples of different models for planning the use of staff and equipment and can be discussed with other students at the same time. Complementary method: Peer to peer assessment to create discussions between students.	
Recommended tools for this method:		
<ul style="list-style-type: none"> • Video Chat platform to create different rooms. • Online drive to share information • Google classroom 		

	<ul style="list-style-type: none"> • Kahoot 				
Advantages of using this format:	Advantages of using this method:				
<p>Offers highest didactical potential by mixing and matching training formats and integrating methods best suited to learners' learning objectives.</p> <p>Offers great potential for transfer.</p> <p>Offers a high level for knowledge transfer, competence development and generally retention and transfer of training content.</p>	<ul style="list-style-type: none"> • This method promotes the development of skills such as communication, active listening, critical thinking, decision-making and metacognitive skills. • Deeper student understanding of concepts. • For trainers, it offers an opportunity to provide instruction while conducting formative evaluation. 				
	<table border="1"> <tr> <td>Difficulty of implementation:</td> <td>Approximate duration:</td> </tr> <tr> <td style="text-align: center;"></td> <td>A 1-3 hours session.</td> </tr> </table>	Difficulty of implementation:	Approximate duration:		A 1-3 hours session.
Difficulty of implementation:	Approximate duration:				
	A 1-3 hours session.				

Group discussion

Foster collective intelligence


<p>Format:</p> <p>Blended formats (digital training and face-to-face training)</p>	Strongest characteristic of this method:	Facilitates teaching and learning of complex content.
	Short description:	
	Link to the full description.	
	Group discussion is a student-centred strategy, in which students are divided into groups and encouraged to discuss on the subject matter given.	
	Aspects of the learning objective covered with this method:	
	<p>In general, the objectives of group discussion are to:</p> <ul style="list-style-type: none"> - Develop critical thinking. - Develop problem-solving skills. <p>When it comes to defining the scheduled times for shipping and arrivals considering optimal driving hours, according to European regulations, transport managers have to communicate with a lot of people and deal with a lot of hazards. This method allows to develop communication skills, interaction, develop critical thinking and problem-solving skills, observe group dynamics.</p>	
	Recommended tools for this method:	
	<ul style="list-style-type: none"> • Online applications to develop concept board for group brainstorming • Whiteboard • Video Chat platform 	

Advantages of using this format:	Advantages of using this method:	
<p>Possibility to activate participants and raise motivation and learners' engagement for digital training during or before face-to-face training.</p> <p>Discussions are livelier in person; it is easier to interact and catch non-verbal communication than in the virtual space.</p>	<p>In most cases, participation in group discussions triggers a thought in students' minds that makes them think and connect with the topic of the group discussion. Misconceptions in students' minds can be corrected during the discussion. Group discussion can encourage students to express themselves more clearly by asking questions and expressing opinions.</p>	
	Difficulty of implementation: 	Approximate duration: 1h

Quizzes and tests

Testing knowledge

Format: Self-directed e-learning with tutor support	Strongest characteristic of this method:	Raising motivation. Assess students' knowledge.
	Short description:	
	Link to the full description.	
	Assessment or repetition of knowledge. Quizzes/tests can also be used at the beginning of a training process to check the knowledge.	
	Aspects of the learning objective covered with this method:	
	The teacher prepares some questions regarding the topic of planning shifts and resources. Then the learners answer them.	
Recommended tools for this method:		<ul style="list-style-type: none"> Online tools: Kahoot, Quizizz, Google forms, Respondus....
Advantages of using this format:	Advantages of using this method:	
Trainers can work with many learners (though more effort is	<ul style="list-style-type: none"> Activates and motivates the participants. The participants and the trainer can easily assess the learning progress and knowledge deficits. Appropriate for theoretical content. 	

<p>needed than in e-learning formats with less trainer participation).</p> <p>Flexible in terms of pace and time of learning for the learners.</p> <p>Offers greater flexibility to respond to individual learners' needs.</p> <p>Supports autonomous learning.</p>	<p>Difficulty of implementation:</p> <p style="text-align: center;"></p>	<p>Approximate duration:</p> <p>15-30 minutes</p>
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Learning scenario n°3: To work in team

Short description of the learning objective:

- To communicate clearly, effectively, and friendly.
- To take account of intercultural dimensions and group dynamics.
- To work together as a team, to interact, communicate, and take decisions.


For learning objective “**To work in a team**”, the e-ManTRA team suggests the following combination of formats, methods and tools:

N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Group discussion	<ul style="list-style-type: none"> • Social-communicative skills development.
2	Case study/ scenario exercise	<ul style="list-style-type: none"> • Professional skills development.

Group discussion

Foster collective intelligence




Format: Blended formats (digital training and face-to-face training)	Strongest characteristic of this method:	Appropriate for social-communicative competences.
	Short description:	
	Link to the full description.	
	Group discussion is a student-centred strategy, in which students are divided into groups and encouraged to discuss on the subject matter given.	
	Aspects of the learning objective covered with this method:	
	Develop communication skills, interaction, develop critical thinking and problem-solving skills, observe group dynamics. Usually, a group discussion will be organised around a central topic chosen by the teacher. Here it could be around communication and intercultural dimension. It is moderated/facilitated by the teacher. Classroom climate should be open so that ideas can be debated respectfully.	
	Recommended tools for this method:	<ul style="list-style-type: none"> • Concept board for group brainstorming/ discussion processes • Canva
Advantages of using this format:	Advantages of using this method:	

Discussions are livelier in person; it is easier to interact and catch non-verbal communication than in virtual space.	<ul style="list-style-type: none"> • In most cases, participation in group discussions triggers a thought in students' minds that makes them think and connect with the topic of the group discussion. • Misconceptions in students' minds can be corrected during the group discussion. • Group discussion can encourage students to express themselves more clearly by asking questions and expressing opinions. 	
	Difficulty of implementation: 	Approximate duration: 1/2h - 1h

Case study

Application of knowledge & skills

Format: Flipped classroom (self-study followed by tutor-supported and/or social learning forms)	Strongest characteristic of this method:	Appropriate for professional skills development.
	Short description:	
	Link to the full description.	
	A case study is an in-depth, detailed examination of a particular case (or cases) within a real-world context. Trainer must prepare the case study before the course. The role of the instructor is to create and share a case based on a practical, professional situation. Students can be asked to read a case and/or watch a short video, respond to quiz questions, and receive immediate feedback, post questions to a discussion, and share resources. The case method bridges theory to practice, and promotes the development of skills including communication, active listening, critical thinking, decision-making, and metacognitive skills, as students apply course content knowledge, reflect on what they know and their approach to analysing, and make sense of a case.	
	Aspects of the learning objective covered with this method:	
	Clear, effective, and friendly communication and interaction, awareness of group dynamics, and teamwork during the decision-making process.	
Recommended tools for this method:		

	<ul style="list-style-type: none"> • Video conference platform • Mind Mapping Tools • Padlet • Brainstorming tools 		
Advantages of using this format:	Advantages of using this method:		
<p>Needed information for the case study can be reviewed in a self-study that should be followed by tutor-supported and/or social learning form like group work and discussions about the case.</p>	<ul style="list-style-type: none"> • Greater student engagement, deeper student understanding of concepts, stronger critical thinking skills, increasing ability to make connections across content areas and view an issue from multiple perspectives. 		
	<table border="1"> <tr> <td> <p>Difficulty of implementation:</p> <p style="text-align: center;"></p> </td> <td> <p>Approximate duration:</p> <p>Synchronous training: 1 session with introduction: 0.5h + 3-4h of work & evaluation/reflection + 0.5h of correction.</p> <p>Asynchronous training: 1-2 weeks of individual studying.</p> <p>Flexible, depending on case and assignments; plan enough time for reflexion & evaluation (at least 30 min).</p> </td> </tr> </table>	<p>Difficulty of implementation:</p> <p style="text-align: center;"></p>	<p>Approximate duration:</p> <p>Synchronous training: 1 session with introduction: 0.5h + 3-4h of work & evaluation/reflection + 0.5h of correction.</p> <p>Asynchronous training: 1-2 weeks of individual studying.</p> <p>Flexible, depending on case and assignments; plan enough time for reflexion & evaluation (at least 30 min).</p>
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Learning scenario n°4: To draw up a payslip for truck drivers

Short description of the learning objective:

- To know the relevant identification categories and/or status of drivers for the payslip (long haul, messenger, short distance...).
- To determine the different categories of working time to be paid (working hours, extra working hours, compensation...).
- To know the concepts related to night work (monetary compensation, night premium, compensation in the form of rest, etc.).
- To know and control the hourly rates of the drivers.
- To apply this knowledge to create the payslip.

For learning objective “**To draw up a payslip for truck drivers**”, the e-ManTRA team suggests the following combination of formats, methods and tools:


N°	Title of the method/tool	Reason why these methods/tools were chosen
1	Know, Want to know, Learned (First steps)	<ul style="list-style-type: none"> • It is an effective method for structuring knowledge. • It allows teachers to assess their student’s levels to see their initial knowledge.
2	Lectures	<ul style="list-style-type: none"> • It allows the teacher to deliver the knowledge about the payslip to the learners.
3	Payslip track game	<ul style="list-style-type: none"> • This game will help learners to apply their knowledge and professional skills to prepare the payslip and the payment check of a driver.
4	Know, Want to know, Learned (Last step)	<ul style="list-style-type: none"> • It allows teachers to assess their students’ level after the course and to see the learners’ progress.

K-W-L (part 1/2)

Testing knowledge


Format: Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)	Strongest characteristic of this method:	Appropriate for assessing learning progress / competence development.
	Short description:	
	Link to the full description.	
	KWL is an effective technique to help learners to identify their personal goals and track their progress throughout the course. A KWL chart is used to: <ul style="list-style-type: none"> • identify what you already Know (K) 	

	<ul style="list-style-type: none"> • consider what you Want to know (W) • record what you have Learned (L) <p>At the beginning of the module:</p> <p>KWL charts are useful at the start of a lesson to activate and consolidate what has already been learned but can also be used as an assessment for the learning strategy in the middle of a lesson as students can monitor their learning progress.</p> <p>At the beginning of the module, students are asked to fill the first two columns answering the two questions:</p> <ul style="list-style-type: none"> • What do I Know about the driver’s payslip? • What do I Want to know about the driver’s payslip? <p>At the end of the module:</p> <p>Later, either during the lesson or at the end of the lesson in plenary, learners record what they have learned (L). Completing the L column consolidates the new knowledge and understanding and evidences the progress.</p> <p>Aspects of the learning objective covered with this method:</p> <ul style="list-style-type: none"> • Reflection is the key to relating knowledge to the learner’s experience. After each step seen regarding the payslip/ or at the end of the module teacher will ask questions to help the learners to reflect on what they have learnt. • KWL encourages active learning by allowing teachers to assess their student's learning levels. • KWL draws on student's prior knowledge of the subject matter. There is a relationship between learning comprehension and prior knowledge. • Theoretical elements around the payslip are dense, so it is important that learners know where they stand. • KWL supports the learners to remember the different elements of the payslip. <p>Recommended tools for this method:</p> <ul style="list-style-type: none"> • Whiteboard • Online quiz
Advantages of using this format:	Advantages of using this method:
Offers potential for better integration and transfer of training content.	<ul style="list-style-type: none"> • Enhances learning. • Teacher can figure out what students know. • Easy to create for students. • Helps with monitoring comprehension. • Additional support for students; they can reuse it in other areas whenever they might need it.

	Difficulty of implementation: 	Approximate duration: For the first two steps at the beginning (K-W): 15 / 30min For the end (L): 30 / 45min
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Lecture

Knowledge transfer


Format: Virtual classroom training (100% synchronous)	Strongest characteristic of this method:	Appropriate for theoretic content.
	Short description:	
	Link to the full description.	
	This method aims to sensitise learners and influence their attitude toward the specific subject of the payslip. It also aims to deliver knowledge to learners regarding the different stages to draw up a payslip. With this method, the teacher presents the theoretical elements to the learners through a PowerPoint presentation.	
	Aspects of the learning objective covered with this method:	
	Before being able to draw up a payslip, learners must be able to master and acquire the basic knowledge: Knowing the different categories and statuses of drivers, the classification of working hours, the rules relating to night work, ...	
	Recommended tools for this method:	
	<ul style="list-style-type: none"> • Presentations apps • Video conference platform • File sharing platform 	
Advantages of using this format:	Advantages of using this method:	
Learners can interact with the instructor, ask questions and receive feedback using videoconference, audio conference or chat. Strongly resembles a natural classroom environment, hence offering great potential for transfer.	<ul style="list-style-type: none"> • The information can be conveyed concisely, accurately. • The presentation can be resumed by the student, in order to better understand the information contained. • The presentation can be reviewed at any time, helping to understand and apply complex theoretical elements. 	
	Difficulty of implementation: 	Approximate duration: The teacher should prepare the explanation of the content and organise them in short bits of approx. 20 min.

		It is important to make breaks very regularly.
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Payslip track game

Application of knowledge and skills


Format: Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)	Strongest characteristic of this method:	Appropriate for professional skills development.
	Short description:	
	Link to the full description.	
	<p>This method is a game made up of different steps that compose the different steps of the elaboration of a payslip.</p> <p>The different steps of the game can be done at once in a row or divided into small separate steps.</p> <p>The teacher prepares short descriptions of the activities of a driver. The students, divided into groups, have to determine and calculate the different items of a payslip considering the driver's work plan.</p>	
	Aspects of the learning objective covered with this method:	
	<p>This game helps the learners to revise and apply their knowledge acquired before and to train their professional skills to prepare the payslip and the payment check of a driver.</p>	
	Recommended tools for this method: <ul style="list-style-type: none"> • Use of visioconference tool to create virtual rooms. • Website to create rebuses: http://www.rebus-omatic.com. • Email. • YouTube for the driver video. • Presentation tools for the data about the professional truck driver and then the solutions. • Excel for the payslip draft the learners have to fill in. 	
Advantages of using this format:	Advantages of using this method:	
<p>Offers potential for better integration and transfer of training content.</p> <p>Extends the attention span of learners.</p>	<ul style="list-style-type: none"> • Practical exercises allow the learners to retain a lot of information. • Arouses the curiosity of learners. • Learners don't see the time passing by. • Complex subject in the form of a game. • Learners spend a fun day. 	

	Difficulty of implementation: 	Approximate duration: 1 day at the end of the module of the payslip or 15 min: By small sequences, at the end of each learning unit.
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K-W-L (part 2/2)

Testing knowledge

Format: Virtual classroom training (synchronous) with synchronous break-out sessions (either group sessions or self-study sessions)	Strongest characteristic of this method:	Appropriate for assessing learning progress / competence development.
	Short description:	
	Link to the full description.	
	<p>At the end of the course, learners can reflect on what they have learned and if all their questions were answered.</p> <p>In this part, learners are asked to look back at the notes they made in their KWL chart regarding the payslip topic in the beginning of this scenario:</p> <ul style="list-style-type: none"> • What can you add in the ‘Learned’ column? • Is there anything in the ‘Want to know’ column that was not answered or that you did not understand? <p>The results of the KWL chart can be discussed together in class.</p>	
	Aspects of the learning objective covered with this method:	
<ul style="list-style-type: none"> • KWL encourages active learning by allowing teachers to assess their student's learning levels. • KWL draws on student's prior knowledge of the subject matter. There is a relationship between learning comprehension and prior knowledge. • Theoretical elements around the payslip are dense, so it is important that learners know where they stand. • KWL supports the learners to remember the steps of the different stages of the payslip. 		
Recommended tools for this method:		
<ul style="list-style-type: none"> • Whiteboard • Online quiz 		
Advantages of using this format:	Advantages of using this method:	

Offers potential for better integration and transfer of training content.	<ul style="list-style-type: none"> • Enhances learning. • Teacher can figure out what students know. • Easy to create for students. • Helps with monitoring comprehension. • Additional support for students; they can reuse it in other areas whenever they might need it. 	
	Difficulty of implementation: 	Approximate duration: For the end (L): 30 / 45min