



## Is a car really faster than a bike?

You need to organise a trip into town to go to an appointment. Which mode of transport should you choose?

Well, you sure know that the speed of a bicycle is lower than that of a car, but... is this true in all circumstances?







Main information				
Content	Relationships and ratio Classifying and ordering Digital skills			
Target group	Learners who have either completed the "Which is the fastest?" session or who have already mastered the concept of speed.			
Learning intention	<ul> <li>Numeracy for personal and private purposes</li> <li>Numeracy for professional issues</li> <li>Numeracy to understand society</li> </ul>			
Duration	1 lesson			
Material and resources	Internet connection to use the apps			
Group size	10 to 12 learners			
Problem statement	This session is a continuation of "Which is the fastest?". Once the concept of speed has been mastered, the idea is to apply it to different real-life situations, in order to realise that speed is only an indication in itself, and that it must be supplemented by other criteria in order to make a reasoned choice.			
Working questions	<ul> <li>Is vehicle speed a sufficient criterion for choosing a mode of transport in town?</li> <li>How can an application be used to compare different modes of transport for the same journey?</li> <li>What criteria should be used to choose the best mode of transport?</li> </ul>			
Learning outcomes and results	<ul> <li>The students are able to:</li> <li>Identify the criteria to take into account when making a choice</li> <li>Compare results based on defined criteria</li> <li>Make a reasoned choice</li> </ul>			
Reference to National Qualification Frame	Optional (country's decision)			





Time (lessons)	Description of content/activities	Material	Methodical and didactic information <sup>1</sup>
	The teacher projects the document produced at the end of the "Which is the fastest?" session, indicating the speeds of various elements including the usual means of transport: car, train, bicycle, bus, scooter, motorbike, etc. Ask the learners if everyone agrees, regarding to this document, that a car is faster than a bike. Then, he projects the picture (appendix 1): what reactions does it provoke? And the title of a newspaper article (appendix 2): what could explain this?	See "Which is the fastest?" lesson Appendix 1 and 2	Questioning
	<ul> <li>Working in pairs, the learners draw up a list of the factors that influence a vehicle's speed, specifically when travelling in the city.</li> <li>The proposed results are then pooled.</li> <li>Traffic density, time of day, red and stop lights, one-way streets, parking times</li> </ul>		Collaborative learning
	So, if the theoretical speed of a vehicle is not enough, how do you choose the fastest mode of transport for a journey in the city? One of the easiest ways is to use an app on your smartphone, provided you know how to use it properly. Which ones do learners know about or		Questioning

# Working plan

<sup>&</sup>lt;sup>1</sup> for description and explanation of kinds of tasks, HITs and other background information please consult the teachers' guide





use? Do they know how to use it to compare different modes of transport?		
The trainer projects his smartphone screen to help the learners identify the steps and information to be completed in the app. He places particular emphasis on identifying the various pictograms indicating the mode of transport. Depending on the learners' level of autonomy, trainer can provide a written procedure, based on screen copies (see appendix 3). In the example given, the car is only in 3 <sup>rd</sup> place, behind the bicycle and the	Internet connection Smartphone's screen projection Procedure (appendix 3)	Explicit teaching
<ul> <li>metro, and that's without taking into account the time needed to park.</li> <li>The trainer then asks the learners to use their smartphones to compare different common journeys: <ul> <li>From their home to the training venue</li> <li>From home to a leisure venue they</li> </ul> </li> </ul>	Internet connection	
<ul> <li>From home to an institution</li> <li>From home to their company (for employees or trainees)</li> <li>Transfer</li> <li>To make it easier to embed this practice, carry out this comparative study each time a trip is experied.</li> </ul>		
Transfer To make it easier to embed this practice, carry out this comparative study each time a trip is organised during the training.		





#### Suggestions for the teacher

The example presented here should be considered as exemplary and inspirational material presenting a guideline with a high range of possibilities of adapting those suggestions to a specific group of learners or an individual learner with his or her very personal requirements.

In concrete terms, the example (TITLE) could be adapted this ways:

- Duration:
- Individualization:
- Further or additional material:
- Level of difficulty:
- Dispositions taken into account:
- Learning setting:
- ...

Our educational activities aim at numeracy skills being not only memorized, but first of all being practiced and functionally used by the learners in daily life or/and vocational situations. It is therefore recommended to implement the idea of HITS<sup>2</sup> (higher impacts of teaching skills) as far and often as possible: ...

- ... work with concrete and authentic material that learners will recognize from everyday life situations.
- ... ask the learners questions and let them raise questions themselves. It can be crucial to discuss numeracy themes, contexts and numbers.
- ... think of possible ways of transfer: give concrete hints for this example
- Complete with two (?) more suggestions on HITS

Optional: Further notes for teachers, concretely for this example

<sup>&</sup>lt;sup>2</sup> For general information and explanation on HITS please see (link)





Numeracy in practice teaching and learning examples

### Appendix 1



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#### Appendix 2







### Appendix 3

Screenshots from Google Maps application, you can of course choose another if you wish.











