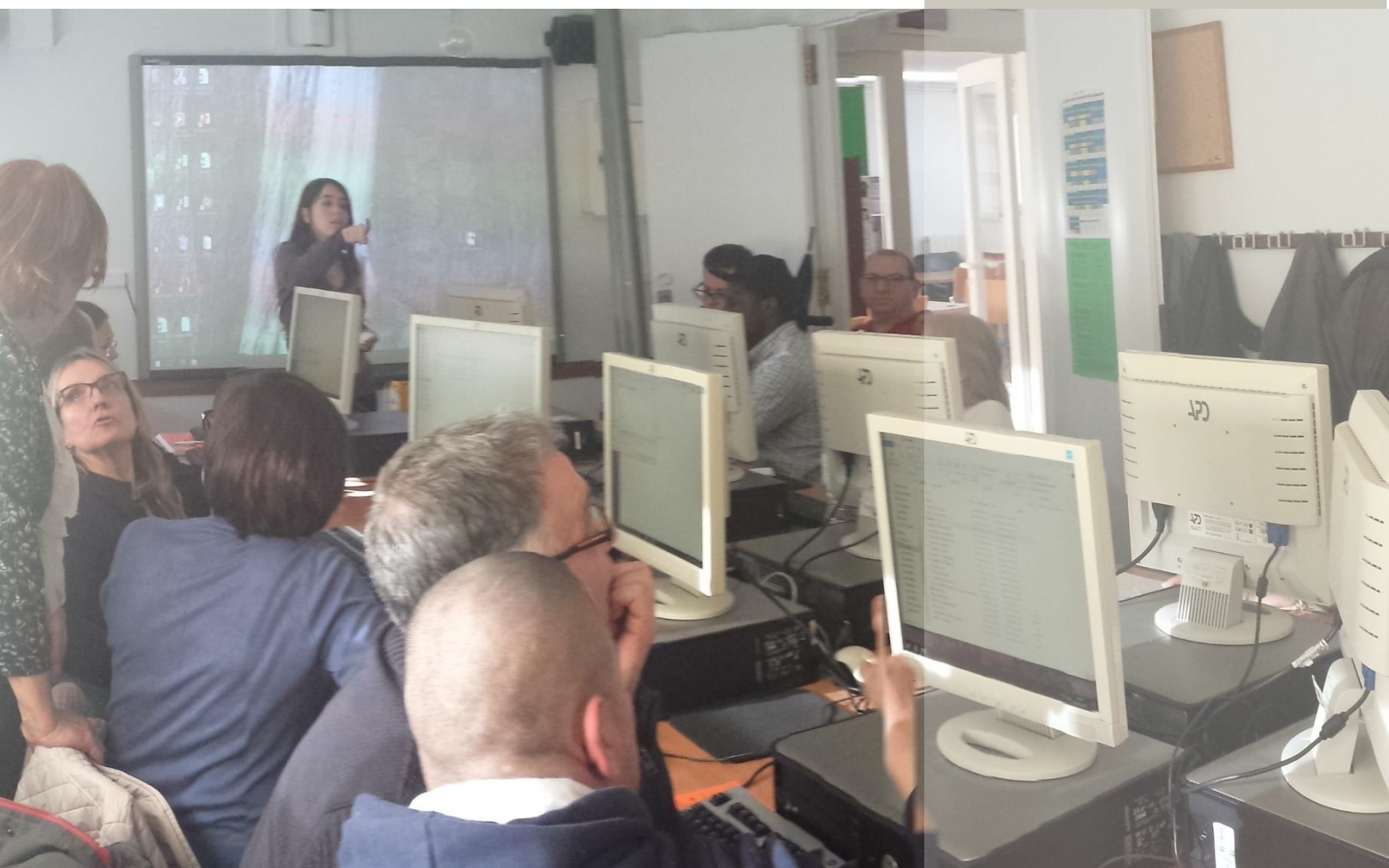




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METHODOLOGY

Interactive groups for digital inclusion
through intergenerational dialogue

The digiUp project. Interactive groups for digital inclusion through intergenerational dialogue (2015-2017)

Coordinator:

Federació d'Associacions Culturals i Educatives de persones Adultes (FACEPA). (SPAIN)



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<http://www.rio-org.se/>

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<http://www.amalipe>

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"I have some digital competence but I want to know more to be more creative in my work. It'll be easier to accomplish my daily tasks and be more useful for my students"

Participant from an ICT course

Interactive groups are an inclusive way to organize the classroom that offers the best results in today's society in terms of improving knowledge and cohesion in the classroom. The objective of interactive groups is for all students to achieve together the same learning expectations. They diversify interactions between participants, teachers and volunteers from the community, facilitate the achievement of excellence for all and, at the same time, increase the effectiveness of the time invested. Furthermore, participants also develop values, emotions and feelings like solidarity or friendship.

In this guide you will find guidelines on how to transfer this Successful Educational Action –an action that improves learning, communication between peers and solidarity and is transferable to different contexts- to the learning of digital competences, based on the European framework for a Digital Curriculum.



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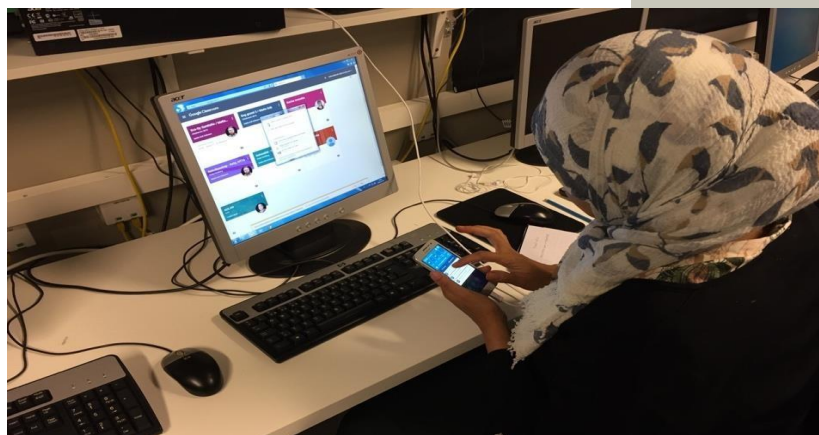
CHAPTER 1

1.1. WHY interactive groups?

In today's society there is more diversity and that is also reflected in our classrooms; they have become more diverse and heterogeneous. In this context, one of the main challenges is for all participants (students) in the classroom to achieve success despite their different cultures and learning levels. This is not something that teachers can solve by themselves. From a dialogic perspective of learning, everyone's voice needs (teachers, participants and volunteers) need to be included in order to organize our courses in a way that responds to the needs of all the participants.

Frequently, diversity has been considered a difficulty, but research evidence shows that by facilitating dialogic interactions and including the community in the classrooms we can get more knowledge and better results (Diez, Gatt, & Racionero, 2011). One of the strategies that has been proven to be most **effective in this sense is the implementation of interactive groups**: a form of organizing the classroom that promotes dialogic interactions between participants of different backgrounds, levels, and cultures with the help of volunteers (Valls & Kyriakides, 2013).

Interactive groups are based on the fact that mutual help between peers facilitates a better learning, because the ones who have understood a task quicker than the others have the challenge to explain it to someone else in their own words, which helps them improve their own learning. At the same time, those with more difficulties to understand the same task will have someone who explains it in a different way than the teacher would, often with words that they understand better. Meanwhile, it also promotes a better understanding between the participants and values like solidarity and friendship.



1.1.1. Information society and changes in learning

Nowadays, our society is more dialogic than it was before and people demand a more active participation; they expect to be able to participate in decision making spaces and this also concerns the learning environment. This is where dialogic education has an important role: the teacher is no longer the only one who has all the knowledge and exposes it to the participants for them to learn. Participants also expect a more dialogic relationship, where their voices—as well as the teachers', and the volunteers' voices—are taken into account depending on the validity of their arguments and not on their position of power. Therefore, we must plan our courses differently from what has traditionally been done.

Moreover, in today's information society, most of the information we need in our daily life is available online. It is important to work on digital competences to have access to this digital world. Interactive groups applied to courses related to Information and Communications Technology (ICT) will not only promote a faster and better learning; since they are based on a reflexive dialogue between the participants, volunteers and teachers, they promote the abilities to process information and to think critically, which are basic requirements in today's Information Society.



The interactive groups respond to this social change, and they have been identified as one of the Successful Educational Actions the project with more resources addressed to investigate compulsory education in Europe: the research project INCLUD-ED. *Strategies for inclusion and social cohesion in Europe from education*¹ (2006-2011). As identified in this project, Successful Educational Actions (SEA) (Flecha, 2015) are actions that:



Contribute to a better learning and solidarity between the participants.



Are universal, with common elements when applied in different contexts



Can be transferable to different contexts and levels of education and provide similar results.

1.1.2. Different form of classroom organization (mixture, streaming, inclusion)

INCLUD-ED (2006-2011) a research project integrated in the European Commission's 6th Framework Programme, which had the objective of distinguishing concrete actions that contribute to the success of education and social inclusion, identified three different forms of classroom organization:

a) Mixture

All participants are in the same classroom with one teacher, the profiles are diverse -different backgrounds, cultures, learning levels, etc.- but it is mostly based on an individualized attention from the teacher to the participant, so the teacher can hardly attend to the needs of all the participants. As a result, not all of them can keep up with the rhythm of the lesson.

Even if the teacher explains how to use an application on a smartphone, for example, the participants learn better when they practice. However, when the group is big, the teacher can't go from one student to the other to solve all the problems they have. In the end, the ones who learn faster will eventually get bored because the rhythm of the class is too slow for them while the ones who find the tasks more difficult won't understand it if it is too fast. As a result, these students with more difficulties fall behind. Therefore, this model of education does not respond to the needs of all the participants.

¹INCLUD-ED project: Strategies for inclusion and social cohesion from education in Europe (2006-2011) research project is the largest (in terms of budget), longest, and most comprehensive research project in Europe. It was selected as one of the 10 best projects by the European Commission, the only one in Social Sciences and Humanities.

b) Streaming

Realizing the problems with the mixture model, some countries have been organizing classes in homogenous groups by dividing the participants in different classes depending on their level, offering optional courses also depending on their learning level or forming groups in class when doing tasks (divided into levels). In some cases, they might be in the same classroom but the ones with most difficulties –for example, students with disabilities or immigrants- are given a different curriculum with lower expectations. Therefore, they segregate participants according to their learning level and this increases the differences between them, which has a negative impact on low-achieving students but also on those who learn faster.

c) Inclusion

Different types of inclusive education have been identified in the INCLUD-ED (2006-2011) research project, all of them working with heterogeneous groups as a key factor. None of the students are left behind because, since the participants in a group are diverse in learning levels, learning rhythms and background, they all have different capacities and can help each other understand tasks from different points of view.

Research has proven that the presence of students with diverse characteristics in the classroom provokes interactions that are beneficial for a faster and better learning for everyone (Christou & Molina, 2009). Therefore, what characterizes the inclusive model is that it responds to the needs of all the participants so they can all achieve the same knowledge and with maximum expectations for all. One of these inclusive ways of organizing the classrooms is the implementation of interactive groups.

1.2. WHAT are interactive groups?

Interactive groups are a form of classroom organization; they are small groups where participants work together, with dialogic interactions and following the principles of the dialogic learning². Through interactive groups, the participants multiply the diversity of interactions, while increasing effective working time. In other words, interactive groups are capable of generating, with the same dynamic, accelerated learning for all participants.

²To know more: <http://comunidadesdeaprendizaje.net/presentacion/aprendizaje-dialogico/>



The intergenerational approach during the training was very helpful and successful, because made us feel as one. We became one family. The training was very useful to me and at the same time it was a great fun. We were discussing with the trainer and with the other participants any unclear matter

Participant of the digiUP Pilot Course in Bulgaria

1.3. HOW do interactive groups work?

1.3.1. Before class

The key points to take into account before working with interactive groups are:

a) To work in heterogeneous groups

We have to organize the classroom to facilitate participants work in heterogeneous groups; with people from different cultures, age groups and levels of knowledge in every group. The more diversity there is in a group, more diverse the interactions will be and hence everyone in the group will also learn more than if they would had only interacted with people at the same level.

Therefore, to begin with, the teacher divides the class in small heterogeneous groups of about 5-6 participants, although the number of participants in a group depends on the number of students there are in class. If there is no diversity of courses and ages in a course, it is still very important to ensure that there are at least people with different levels in every group. When working with computers, for example, instead of having one computer for every participant, two people can work together with the same one and this way we make sure that they interact when solving a task. This is important in ICT courses because in a class there are many people who already know how to use some applications because of their past experiences, but still have some doubts or don't know about all the functions the application can have.

I have young people and elderly people in class and they help each other. What we need to do is to make these pieces and this collaboration fit; they are not that far away from each other and it is productive that they are together, that there is an exchange. Teacher of an ICT course

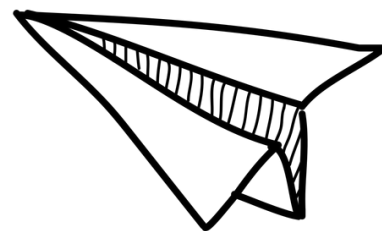
Distribute the groups so they can help each other
Teacher of an ICT course

We had groups with mixed age groups, and the continuous dialogues were very interesting

Volunteer from one of the digiUP

b) How to plan the sessions

The teacher prepares the activities beforehand, then meets with the volunteers and explains the activities to them so they can help better during the interactions. It is important that the volunteers know what their role is: to facilitate interactions between participants. This is something you volunteers of in the course of your classes and when you are explaining the activities.



1.3.2. During Class

a) The teacher

Teachers are responsible for explaining the concrete activities to be developed during class. They are the ones who will solve any problems the students have that they can't solve by themselves. However, it is important to keep in mind that they must first facilitate the interaction between participants in order to promote mutual help between them so that they learn from one another instead of concentrating only on their own task.

Therefore, one of the roles of the teacher in creating the interactive groups is to help participants to mix in heterogeneous groups. They have to explain to the participants the relevance of working with people from different levels and competences, backgrounds, knowledge, culture, etc. and how to improve the learning process for all. This way, when the sessions continue to be developed with interactive groups, it will gradually be more natural for the participants to ask for help, explain the doubts to one another when they don't know how to do something and to mix between the groups by themselves.

It is important to ensure that the participants explain the doubts and help each other to actually understand the activities and why they are done a certain way. If everyone does the same as the one who usually gets the answers right but without really knowing why, they won't learn how to use a computer, a smartphone or surf the Internet because when they are alone, they won't know how to do it.

The ones who give classes give the information and they do it in groups. As a teacher you go from group to group if they have doubts or to see if they do it right

Teacher of an ICT course

b) The volunteers

The volunteers are coordinators of interactions and they are there to make sure that there is diversity in the classroom so that everyone reaches the same level of knowledge; asking questions intended to promote critical thinking and to make sure that everyone can participate, for example. **They don't act as teachers**, since they don't explain any content and don't correct the activities. Therefore, **it is not necessary for volunteers to have specific knowledge about digital competences** in order to participate in the classroom. They interact with the participants individually and in group and also inform the teacher about the progress of the task and what they observe.

It is important to have a volunteer in every group because they are the ones specifically in charge of ensuring that the right interactions take place and they might have ways of helping that are different from the teacher's. If no volunteers were found, exceptionally, the teacher is the one who has to ensure that all the groups manage themselves as adults so that those interactions take place.

WHO can be a volunteer?



People from the community.



Family members of the participants.



University students.



Former participants.



It is important to ensure that the participants explain the doubts and help each other to actually understand the activities and why they are done a certain way. If everyone does the same as the one who usually gets the answers right but without really knowing why, they won't learn how to use a computer, a smartphone or surf the Internet because when they are alone, they won't know how to do it.



‘At the beginning, I was like... It was difficult to accept this issue, the way of working. Because I was volunteering and I had this vocation to always [help]. Then, it has been difficult to me take a step back, and initially I was sometimes upset, being honest, because I thought: “But then, why do they need volunteers?” And, I don’t know when but my mindset changed and I realized that truly... This is effective; this way of collaborating all together. Also, as Anna says, links of friendship and trust are established, so they are important, and I have also realized that this way of working has become part of them and they put it in practice in other classes. [...] Well, I like to see that yes, this has been really very effective’.

Volunteer of the digiUP Pilot Course

c) The participants

The participants should know beforehand that they have to work on the task together or, if they start doing it individually, that the first one who finishes has to help the others- They all have to share their thoughts and conclusions about the task so that they all understand the activity and there is not anyone who is left behind.

Practical example:

“ A teacher of an ICT course explained that in his course about Smartphones, he dedicates the first class to explain how interactive groups work, so that participants understand the importance of working together and that it helps everyone reach a better understanding of the contents, and faster as well. Since participants are often used to a class where the teachers explain everything, it can take some time for them to get used to it, but this teacher says that if he dedicates time during this first class to explain how the interactive groups work they come back with less fears and with more disposition to work together in groups the next class

Teacher of a course about smartphones

1.3.3. After Class

It would be important that after the classes the teacher sits down together with the volunteers in order to share impressions about the development of the class, because they might have been able to observe more details since they are the ones specifically in charge of facilitating interactions in every group.

1.3.4. The role of the teacher, the volunteers and the participants

The role of the teacher	The role of the volunteers	The role of the participants
<ul style="list-style-type: none">● Designs the class● Coordinates the volunteers● Coordinates the activities developed in class● Interacts with the participants● Facilitates interactions● Ensures dialogic and equal participation of everyone in class● Stimulates cooperation between participants● Facilitates tutoring and mutual help between equals● Corrects the activities with the participants● Solves problems when the participants cannot do it by themselves● Facilitates the participants' self-assessment at the beginning and at the end of the course	<ul style="list-style-type: none">● Interact with the participants● Facilitate the interactions between participants/, ensuring that they all:<ul style="list-style-type: none">- Understand the activity- Help each other- Finish the activity- Participate equally● Encourage students with different cultures and learning levels to contribute their different points of view● Inform the teacher of the progress they have observed in the class.	<ul style="list-style-type: none">● Work together in heterogeneous groups in order to solve the tasks given by the teacher● Make sure that everyone in the group understands the task and, if not, help one another to solve it together● Participate equally● Help other groups when they have finished their own task, so that they all can finish and understand it● Self-assess their digital competencies at the beginning and at the end of the course

I.3.5. The activities

The activities usually take between 15-20 minutes. There are two options: either you prepare 2-3 different activities that the groups do in the rotation system or all the groups work on the same task at the same time. There are two options; either you prepare 2-3 different activities that the groups do in a rotation system or all the groups work on the same task at the same time. What is essential is that at the end of the class all of them have done all the activities, because it is the way to ensure that they all work on the same contents. These activities should be planned to start with easier tasks for the participants to get confidence, and then gradually increase the difficulty.

Practical example:

In a course about how to use smartphones, an option can be to ask the participants to call the teacher or someone else first, because it is an easy task to achieve and this way they get some confidence to keep learning more. As the difficulty increases, the teacher can also appreciate who has a more advanced knowledge about smartphones, to take it into account when organizing the heterogeneous groups so that there are people of different levels of knowledge in every group. **Teacher in a Smart phones course**



As further explained later into the guide (section 2), there should be an initial evaluation at the beginning of the course for the students to self-assess their initial digital competencies, with the teacher's feedback. The objective of the activities to be carried out in class should be based on the agreements reached after this initial evaluation. It is important that the agreements reached between the teacher and the participants are reflected in the development of the course.



a) Activity 1

The objective of the activity is to work on the competence of Information Processing and Content Creation.

- Before the class the teacher creates a blog about cultures of the world.
- At the beginning of the sessions, the teacher introduces and explains a new tool to the participants: the blog.
- The class is divided in heterogeneous groups, for example it can be a computer for every two people.
- Every group makes a post in the blog the teacher has created beforehand, explaining something that they want to share about their cultures, countries or cities (it can be a recipe, a tradition, etc.)
 - As the teacher goes from group to group, he/she encourages them to also add images or videos to the blog post.
 - The volunteer ensures that they all contribute to the creation of the post and that nobody falls behind.
- All the groups write one comment to the posts from other groups.
- All the groups present their blog post to the rest of the group, so that they all can ask questions and discuss them.
- They all share with each other what they have learned, any doubts that they still have, and talk about other platforms to share opinions such as forums, with the help of the teacher.

b) Activity 2

The objective of the activity is to work on the competency of content creation with an image editor:

- At the beginning, the teacher tells the participants that the new ones should work together with the ones that have already been in that class before.
- The teacher reminds them that they should ask when they have a doubt, that they should not be afraid to do so.
- The teacher explains how to correct a photo and how to change the colour.
 - They start with the easy tasks and, going more in depth as would be better the session advances.
- After the explanation the participants, who are seated in pairs so that they have one computer for every two people, practice what the teacher has explained.
 - Sometimes, the teacher has to encourage the participants to help their classmates understand the activity.
- At the end of the class the teacher asks the participants to think about what they have done during the class in order to share the doubts they have in the following session, to solve them together with everyone.

I.3.6. The importance of interactions

Dialogic interactions v/s interactions of power: Not all interactions promote dialogic learning. If the students are doing an activity and they decide how to do it because the leader of the group said so and not because everyone agrees and understands it, this is an interaction of power.

In this case, the teacher or the volunteer would ask the other participants of the group what they think or if they would do it differently, and facilitate that everyone contributes to the resolution of the activity. This way, the decisions will be based on the validity of the arguments and not on the power of who says them. These are called dialogic interactions, which have been proven to achieve better knowledge (Aubert et al., 2013).

The diversity of interactions in the classroom is also what will make the participants develop a better knowledge, and also faster. This is why it is so important to take into account the participation of the volunteers, who are also from different backgrounds just like the participants.



When you know more and teach it to someone else, you reinforce your knowledge. Everything becomes clearer

Participant from an ICT course



Some strategies to facilitate interactions are:

1. General strategies

Examples:

- To decide how many people there will be in every group before the class, depending on the number of participants and the activity.
- Not starting until we have ensured that everyone has understood it.

6. Strategies to check:

Examples:

- 'When you finish check what you have'
- 'Let's check together' (if they have done it individually).
- 'Compare what you have done with the one next to you'

2. Strategies to understand the activity:

Examples:

- To give information related to the activity on the previous class so they can read it at home. This way, they will already know something about what they will be working on, before the class.

3. Strategies to help them organize themselves if they can't do it alone:

Examples:

- To ask the group who is going to take notes.

4. Strategies to finish the activity:

Examples:

- 'Let's try to finish this exercise before doing the next activity'.

5. Strategies to help those who don't participate or when someone talks too much:

Examples:

- To ask the people who don't say anything specifically to share what they think with the group.
- To ensure that there are no parallel dialogues (only between two people).

7. Strategies for when there are big difficulties:

Examples:

- To start with something easy that they all can do to gain confidence.

8. Strategies to facilitate reflection and argumentation

Examples:

- 'Who has a different result? Can you share it?'
- 'Why have you done it like this?'
- 'How would you explain it to your classmates that have not understood it?'

9. Strategies to respond to the participants' suggestions

Examples:

- 'What an interesting question! It has helped us to understand it better'
- 'You are explaining it very well'
- 'The groups are working very well today; you are helping each other a lot'

10. Strategies to facilitate that, when there are different cultures, different elements from this culture appear in the discussion

Examples:

- 'How do you say this? Do you do this differently? Maybe it can help all of us.'
- 'Did you learn it like this in your school?'

I.3.7. Dialogic Learning

The seven Principles of Dialogic Learning (Flecha, 2000) are the basis of interactive groups and they always have to be taken into account:

EGALITARIAN DIALOGUE

The participants, teachers and volunteers have to be considered as equals in the classroom; an **egalitarian dialogue ensures that their contributions are valued according to the content of the arguments** and not according to who is making the contribution.

Therefore, it is based on a dialogic relationship between participants, teacher and volunteers in the classroom. The teacher is no longer the only one who can share knowledge about the content, the classmates and the volunteers are also valuable essential resources. This approach promotes a creation of knowledge based on inter-subjectivity between all the educational agents. In other words, knowledge is created together with everyone, and we all have something to contribute to it.

For example, at the beginning of a course the teacher must introduce the five key ICT competences of the European framework³ (information processing, communication, content creation, safety and problem solving). Then they agree together with the participants on which contents are important for them to work on, ensuring that everyone can give his opinion. In this way, even if there is a programme that the teacher and the volunteers would have already discussed before starting the course, the voices of all the participants are taken into account.



I want to help my kids and my mother to be more competent digitally. I know that this will be useful for them. My sister is in Germany and I talk to her via Skype but my mother can't.

Participant from in ICT course

³See section 2 for more details.

CULTURAL INTELLIGENCE

Everyone has different capabilities and learns differently. An intergenerational approach puts value on these different intelligences from elderly and young people. Everyone can contribute to creating knowledge, whether they have had an academic education or not (Habermas, 1984), because adult participants have acquired skills from their own life experiences that are transferable to an academic context as long as appropriate conditions are guaranteed.

For example, there are people who, because of their job, have to use the email very often so they can help out others who don't. They create an account together and, they learn together how to use the functions of the email program, some of which none of them had seen before. Others might be more familiar with digital spreadsheets because they have needed it in their jobs, and they can share what they know with the group. The teacher might explain it with a technical language, so when they work together it helps everyone understand the concepts better. This way, the cultural intelligence the group shares a resource for everyone to learn digital competences better and faster.

TRANSFORMATION

The elderly and young disadvantaged participants are empowered by transforming their situation, becoming active citizens and overcoming social, occupational and educative exclusion by themselves. This happens because an education based on dialogic learning transforms the relationship between people and their surroundings. When participants are the ones who create knowledge and culture, this also transforms the way they interact in their family and their personal and work environments.

When I started to come more often, I started to gain more confidence and I felt a little more released of my fear, so I learnt... besides from digital competences, I learned a lot of other things: to appreciate friendship, to appreciate the value of saying to my peers: "I don't know this, help me".

Participant of the digiUP Pilot

An example of how the improvement of ICT competences transforms the life of the participants is the case of a participant who applied for a literacy course, and used WhatsApp (a chat application for smartphones) to practice and to learn the alphabet. Another participant who is also learning to read and write uses voice messages through WhatsApp to communicate more easily instead of writing messages. Roma people from Bulgaria have also said that it would be helpful for them to learn how to use Skype in order to communicate with family members who live far away from them.

Conversation between volunteers and participants of the digiUP Pilot Course in Spain:

Volunteer 1: Also, there is another thing that I noticed when you were in class, at first, we had to say: 'Help', 'Give a hand to Anna or José'. And then, at a certain point, you don't have to say it anymore, it's almost as if [volunteers] aren't necessary anymore, because then... when you start and Anna sees it: 'No, no, José, don't click here, do this or do that, or put that right, maybe you have put one dot wrong'. At the beginning, we had to push you, now you are the ones that...

Volunteer 2: Yes, because... well, the ones that know a little bit more were like: 'I have enough [trouble] with what I know how to explain it', weren't they? It was like 'leave me alone....'

Participant 1: Yes, 'I already get confused on my own'

Volunteer 1: And then, at the time that friendship links are being created, then, this becomes spontaneous, there's no need to say it. When someone learns something then they explain it, when someone has reached some place somehow, they also explain it... Then, there is no need to ask, like: 'Give them a hand'

INSTRUMENTAL LEARNING

Dialogic learning includes academic contents and abilities, as well as instruments like dialogue and reflexive thinking. When applying this methodology, the participants will acquire digital competences based on the *European digital framework* EUROPASS. Moreover, if there is dialogue and critical thinking, the participants will develop their abilities to process and select information, which is essential for two of the key competences in the European curriculum: Information Processing and Problem Solving. In order to achieve the best results, it is essential that the contents are decided together, through a negotiation between the participants and the teacher. The role of the teacher is also to ensure that they always have high expectations about the possibilities to learn.

I learned a lot of useful things during the training. I learned how to work with the computer, how to make a profile in Facebook and how to create my e-mail. I met very interesting people, who helped me to overcome my fears. Participants were children and their parents. We all were working in pairs and groups. It was very exciting. The trainer and the volunteers were very supportive and good experts

Participant of the digiUP Pilot Course

I have some digital competence but I want to know more to be more creative in my work. It will be easier to accomplish my daily tasks and be more useful for my students

Participant from an ICT course

MEANING CREATION

It refers to the need to respect the participants' individualities and to promote a learning based on their own demands and necessities, which occupies them actively by working together, so that they not only learn more but what they do also has meaning for them. Dialogic learning is one of the best ways to overcome the loss of meaning because people see that their participation produces changes and improvements. If teachers evaluate the participants' digital competence level together with them, then they can also decide together what competences are important for them to learn and this will ensure that what they work on in class has meaning for them.

SOLIDARITY

We need a democratic education that includes the active participation of the participants in the classroom because, in this context of egalitarian dialogue, it promotes the attainment of mature and critical thinking. As the participants get used to working together and helping one another, they will gradually become more supportive with their classmates as well as in other settings, ensuring better results with the learning of digital competences by overcoming difficulties together.

“
Companionship is very important. One knows more, helps the others. You leave the classroom happy. And wanting to return, and when you return, you learn

Participant from an ICT course

EQUALITY OF DIFFERENCES

Dialogic learning is based on considering diversity as a source of enrichment in order to improve the knowledge of everyone. If someone is not familiar with certain skills and competences, it doesn't mean that the expectations of what they can learn should be reduced. Instead, the needed support has to be given to improve their skills to be able to learn in the same way as their classmates.

“
For us it was important that we didn't need to worry or feel ashamed about not speaking the language too well. We were all in the same situation and we could help each other. We could ask questions whenever we wanted

Participant of the digiUP Pilot Course

CHAPTER 2


2.1. Digital competences

The project aims to with the five areas of ICT competence based on the digital European framework EUROPASS:

- **Information processing:** Capacity to use advanced search strategies to find reliable information on the Internet, to use web feeds to be updated with contents of interest, to assess information critically, to save information in different formats and to use cloud information storage services.
- **Communication:** Capacity to use communication applications online, to create and manage contents with collaboration tools, to use online services, etc.
- **Content creation:** Capacity to produce content in different formats (tables, text, images, etc.), to modify multimedia content, to create web page, to apply licenses and copyrights, etc.
- **Safety:** Capacity to protect electronic devices, to check the security configuration and systems of devices and applications, to react if a device is infected by a virus, to configure the firewall of digital devices, to can apply filters to spam e-mails, etc.
- **Problem solving:** Capacity to choose the right tool, device, application, software or service to solve non-technical problems, to frequently update digital skills, etc.

For more information go to:

<http://europass.cedefop.europa.eu/resources/digital-competences>

		Basic User	Independent user	Proficient user
 <i>Opening doors to learning and working in Europe</i>	Information processing	I can look for information online using a search engine. I know how to select information in search. I can save or store files or content (e.g. text, pictures, music, videos, web pages) and retrieve them from online storage or device.	I can use different search engines to find information. I use some filters when searching (e.g. searching only images, videos, maps). I compare different sources to assess the reliability of the information I find. I consider the information in a methodical way using links and folders to locate these easier to be backup of information or files I have stored.	I can use advanced search strategies (e.g. using search operators) to find specific information on the Internet. I can use web feeds (RSS) to be updated with content I am interested in. I can assess the validity and credibility of information using a range of criteria. I am aware of new advances in information storage, storage and retrieval. I can save information locally on the Internet in different formats. I can use cloud information storage services.
	Communication	I can communicate with others using mobile phone, video over IP (e.g. Skype) and/or chat, using basic features (e.g. voice messaging, SMS, email) and receive emails, text messages. I can share files and content using simple tools. I know how to use digital technologies to interact with services (e.g. government, banks, hospitals). I am aware of social networking sites and online collaboration tools. I am aware that when using digital tools, certain communication rules apply (e.g. when commenting, sharing personal information).	I can use advanced features of several communication tools (e.g. using Voice over IP and sharing files). I can use collaboration tools and contribute to e.g. shared documents, wikis, etc. I have created. I can use some features of online services (e.g. public services, e-banking, online shopping). I pass on or share knowledge with others online (e.g. through social networking tools or in online communities). I am aware of and use the rules of online communication (netiquette).	I actively use a wide range of communication tools (e.g. chat, SMS, instant messaging, blogs, microblogs, social networks) for online communication. I can create and manage content with collaboration tools (e.g. electronic portfolios, project management systems, online prototyping, online spreadsheets). I actively participate in online spaces and use several online services (e.g. public services, e-banking, online shopping). I can use advanced features of communication tools (e.g. video conferencing, data sharing, application sharing).
	Content creation	I can produce simple digital content (e.g. text, tables, images, audio files) in a word or text format using digital tools. I can make basic editing to content produced by others. I know that content can be covered by copyright. I can apply and modify simple functions and settings of software and applications that I use (e.g. change default settings).	I can produce complex digital content in different formats (e.g. text, tables, images, audio files). I can use techniques for creating web pages or blogs using templates (e.g. WordPress). I can apply basic formatting (e.g. text features, charts, tables) to the content I or others have produced. I know how to reference and quote content covered by copyright. I know the basics of one programming language.	I can produce or modify complex, multimedia content in different formats, using a variety of digital problems, tools and environments. I can create a website using a programming language. I can use advanced formatting functions of different tools (e.g. text images, merging documents of different formats, using advanced formulas, macros). I know how to apply licenses and copyrights. I can use several programming languages. I know how to design, create and modify databases with a complex tool.
	Safety	I can take basic steps to protect my devices (e.g. using anti-virus and password). I know that not all online information is reliable. I am aware that my credentials (username and password) can be stolen. I know I should not reveal private information online. I know that using digital technology for cybersecurity can affect my health. I take basic measures to save energy.	I have installed security programmes on the devices that I use to access the Internet (e.g. antivirus, firewall). I run these programmes on a regular basis and update them regularly. I can identify the websites to access equipment, devices and digital services and modify them on a periodic basis. I can identify a phishing email. I can share my online identity and keep track of my digital footprint. I understand the health risks associated with the use of digital technology (e.g. ergonomics, risk of addiction). I understand the positive and negative impact of technology on the environment.	I frequently check the security configuration and systems of my devices and/or the applications I use. I know how to detect if my computer is infected by a virus. I can configure or modify the firewall and security settings of my digital devices. I know how to encrypt e-mails or files. I can explain them to others in simple terms. To avoid health problems (physical and psychological), I make reasonable use of information and communication technology. I have informed others on the impact of digital technologies on everyday life, online consumption, and the environment.
	Problem solving	I can find support and assistance when a technical problem occurs or when using a new device, program or application. I know how to solve some routine problems (e.g. power problem, re-start computer, re-installation program, check Internet connection). I know that digital tools can help me in solving problems. I am also aware that they have their limitations. When confronted with a technological or non-technological problem, I can use the digital tools I know to assist it. I am aware that I need to update my digital skills regularly.	I can solve most of the more frequent problems that arise when using digital technologies. I can use digital technologies to solve non-technical problems. I can select a digital tool that suits my needs and assess its effectiveness. I can solve technological problems by exploring the settings and options of programmes or tools. I regularly update my digital skills. I am aware of my limits and try to fit my goals.	I can solve almost all problems that arise when using digital technology. I can choose the right tool, device, application, software or service to solve non-technical problems. I am aware of new technological developments. I understand how new tools work. I frequently update my digital skills.

Some examples of activities to develop the five digital competences are:

Table 2. Examples of activities that work on the five competences of the EUROPASS curriculum.

Competence	Activities proposal
1. Information Processing	<p>To research about participants' countries/ cities/ villages using search engine.</p> <p>To Visit Museums of the world online, learning about artist and artwork using different webpages and contrasting facts.</p> <p>In an Internet course, participants learn how to create an email account and the possibilities that email gives them to save information on the cloud, for example Gmail – Google drive or Hotmail – OneDrive.</p> <p>To learn how to save and share information using Dropbox.</p>
2. Communication	<p>One activity can be to learn how to use the public services online. Participants can have access to doctor's appointments, socials services and events.</p> <p>At the same time participants learn about social media, it's important to learn about the communication tools available like chat, video calls, etc.</p> <p>When having a group, it is a good exercise to identify the differences between different operating systems, and compare the functions that the same app might have in IOs or Android for example.</p>

Competence

Activities proposal

3. Content creation

To create artwork using image editor programs.

4. Safety

To create a blog of each partner country and share ideas and information about the project.

One interesting activity can be to google the participant's names in order to see which personal information is public in the network. Starting with this exercise, the group can discuss and learn about safety on the Internet.

5. Problem Solving

One problem that participants usually have is the difficulty to type with fluency, so one solution is to look for Mecanet⁴ app to learn how the key board works and practice typing more easily.

2.2. Evaluation of the ICT COMPETENCE

The aim of the evaluation is to generate a reflexive process in which the participants can assess their own progress during the course, with feedback from the teacher and volunteers about what they have observed, based on the five competences of the digital European framework EUROPASS. Self-assessment and reflection intend to break with the circle of loss of meaning that happens when the voices of the participants are not included in this key moment of the process. If they see that their contributions to improve the courses are really taken into account, and that they have an active role during the whole process, it produces a transformative circle that promotes higher self-esteem and creation of meaning.

Therefore, the assessment focuses on two areas:

- a) **Assessment of the group and the sessions.** It consists of the evaluation of the course development and of suggestions to improve the activities. It has to be a dialogic assessment, in which the teacher and the volunteers encourage contributions from the participants as the protagonists. To ensure this, there have to be specific spaces designated for the group to evaluate the development of the course, and the teacher has to use these moments to collect their suggestions in order to improve the activities.

⁴ MECANET: <https://mecanet.uptodown.com/windows>

b) **Assessment of the participant and his/her process of learning.** In the spaces designated to evaluate the course, the participants also have the opportunity to self-assess their own progress. This will allow them to reflect on what they have achieved and to set new objectives or purposes. A starting point in every course is to decide what competences are important for the group. This has to be an agreement based on the participants' needs and expectations and the feedback of the teacher.

A) Initial evaluation.

The five digital competences of the EUROPASS curriculum divide participants into three categories: **basic user, independent user and proficient user.** However, the initial evaluation should not be done just by the teacher. In order to evaluate the starting point level of digital competences of the participants, the teacher and the volunteers have to support participants to carry out a self-assessment using the table proposed from EUROPASS.

This **self-evaluation** should be conducted by using the principles of the dialogic learning, giving participants the opportunity to discuss and agree the levels they feel better represent their digital competences. Also, in order to help in the process, it is important that the teacher supports the group simplifying concepts that can be confusing, and uses concrete examples for each competence and level. They can also encourage participants to give examples of what they understand. Once the group agrees on the competences to develop, the teacher can explain the activities to work on them.

Example of practical experiences:

Participants and teachers of ICT courses in Bulgaria, Spain and Germany agreed that if the competences are explained with practical examples the participants won't understand their meaning and they will assess their own digital competence level lower than it really is.

Explaining with examples will help participants to decide better their real level of knowledge by clarifying difficult concepts that might confuse them. Participants with a lower level of literacy would find the self-assessment grid too difficult and intimidating; working together in the group helps them understand these concepts and at the same time it encourages the dialogue between the participants.



B) Process and final evaluation.

It is necessary to have a dialogic process for the evaluation of the competences acquired by the participants. One option is, for example, asking participants to present what they have learned to the group and obtaining feedback from the classmates and the teacher. It can also be done in small groups, discussing the skills acquired and brainstorming possible future improvements, other courses to or other areas to continue learning.

Practical experiences of process and final evaluation:

- Participants use digital whiteboards to describe their work to the class. The group asks questions and gives opinions generating a rich dialogue where everyone learns.
- To have an evaluation meeting at the end of the course to assess the strength of the class and the areas that need to be improved. This is oral and all participants are encouraged to express their opinions. Also, an anonymous questionnaire could be distributed.
- To use the instructions that have been used to do a class task as a guide to determine if the participants have completed the work satisfactorily. This is an opportunity to see aspects that have been forgotten or need to be reviewed and to have the opportunity to do them well. This activity also allows participants to share their skills with others and gain confidence in what they know how to do while others receive the help they need.

Conversation between a participant and volunteers from the digiUP Pilot Course in Spain about the importance of constant dialogue between participants, volunteers and teachers during the course:

Volunteer 1: 'Motivation, so that people don't drop the classes, there are people who give up. We think it is because of insecurity, because of fear... for not knowing how to solve a certain thing'.

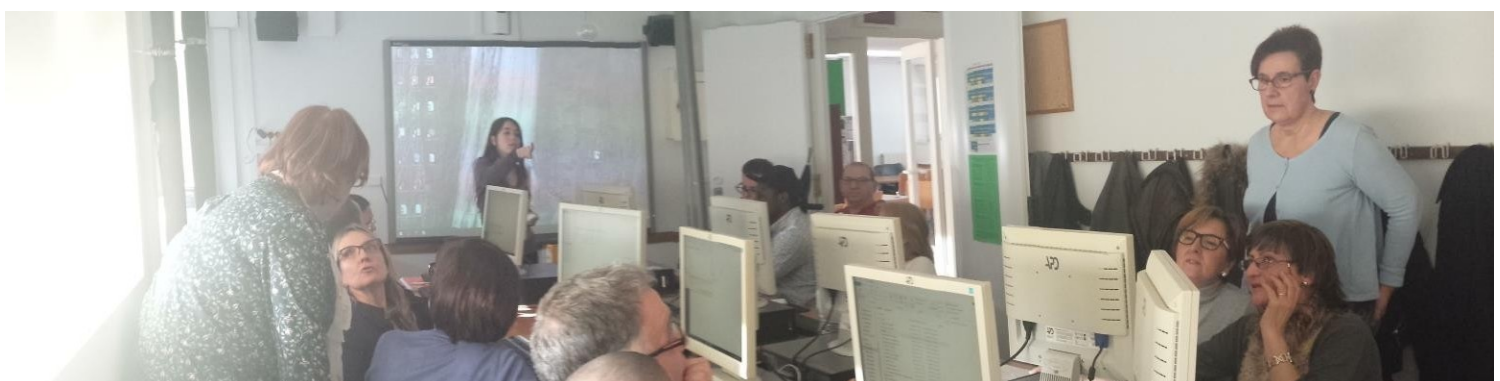
Participant: 'Yes, more motivation. It would be very important to do questionnaires, wouldn't it? How they feel, for example, when they first arrive... two or three days how they feel in class... actually asking them, because... I have noticed that there are people that give up, aren't there?'

Volunteer 2: 'Yes, do you remember that when you started you didn't understand so much information, and there was a day when we asked you and you all agreed to say: "Go a little more slowly"? And at the moment when you had the option to say, "We want you to go more slowly", you started to understand it better and to work better. I think it would be good to include these spaces... two or three days in class, to stop and "What do you think?" "How is it going?" "No, we are going too fast or too slow".

The teachers and volunteers of a course meet to make an evaluation of the course and of the improvement of the participants, considering the attendance and the activities carried out in the sessions. This evaluation has to be returned to the participant at the time of the self-assessment.

The EUROPASS table of the five digital competences should be discussed with the participants at the end of the course, with the same examples as in the initial evaluation. They self-assess their level once again, which is a way to appreciate the improvements and, in addition, teachers will have a tool to compare the initial level of the group with the end level and thus see what has to be improved or changed, and what should be maintained because it has provided good results.

Initial evaluation	Evaluation of the process	Final evaluation
<ul style="list-style-type: none"> ● Dialogical self-assessment of the initial level on participants' digital competences with the teacher's support. ● The teacher gives practical examples of possible activities to work on each of the 5 competences. ● Participants and teacher agree on which competences are important to learn for them. 	<ul style="list-style-type: none"> ● Groups can present to peers what they have learned after doing the activities. ● The volunteer shares what he has observed with the teacher at the end of the session. ● Evaluation of the group and the functioning of the sessions. 	<ul style="list-style-type: none"> ● Self-assessment of the participants' digital competences with the teacher's support. ● To share the evaluation of the course and of the participants with the teachers and volunteers. ● Evaluation of the group and the functioning of the sessions.



ABOUT THE digiUP PROJECT

This document is a guide for teachers, volunteers and organizations for the application of interactive groups in Information and Communication Technology (ICT) courses, so that they can improve the digital competences of their participants.

This guide has been developed within the framework of the European project digiUP: interactive groups for digital inclusion through intergenerational dialogue, a project funded by the European Commission's Erasmus + program, involving organizations from 4 European countries: Germany, Sweden, Bulgaria and Spain. The guide presented here is the result of the joint creative work of the project partners and the project participants.

For more information: <http://tinyurl.com/hot6qej>

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