

From a research point of view
– *How can ICT be an effective tool for improving
the inclusive education for new arrivals in the EU?*

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Presentation plan

- basic research assumptions
- methodology
- cases presentation
- cross-country analysis
- answer to the general question and final conclusions

The basic research assumptions

Conducting the research through ICT Guides project we sought to answer the general question:

How we can use:

- *ICT (information and communication technologies)*
- *intergenerational learning (between young immigrants 12-16 years and older citizens over 65)*
- *the theory of empowerment
to reduce ESL (early school leaving)?*

We have assumed that the social world is not an empirically measurable and that the pupils and seniors are not only the sum of physical individuals. They are rooted in the culture, which is the axionormative matrix of their behaviour. Therefore, to find the answer to this question we used mixed research approach, conducted qualitative and quantitative research simultaneously.

Methodology

Mixed research approach

Case study as a research method which focuses on a concrete example of educational experience

The basic research technique was the **survey** with open and closed questions

The second technique was **the qualitative analysis of photographs** (visual data), which is increasingly used in social sciences and results from the visualization of the transition and perception of contemporary reality

Research data

- surveys

cases:	Pupils course -beginning surveys	Pupils course-end surveys	Seniors course -beginning surveys	Seniors course-end surveys	Teachers surveys	Authorities surveys	<i>total</i>
Berlin	14	0	12	1	1	3	31
Goteborg	22	19	8	7	7	5	68
Madrid	17	19	10	24	1	8	79
Sheffield	40	22	23	17	1	0	103
<i>total</i>	93	60	53	49	10	16	281

- photos (some)

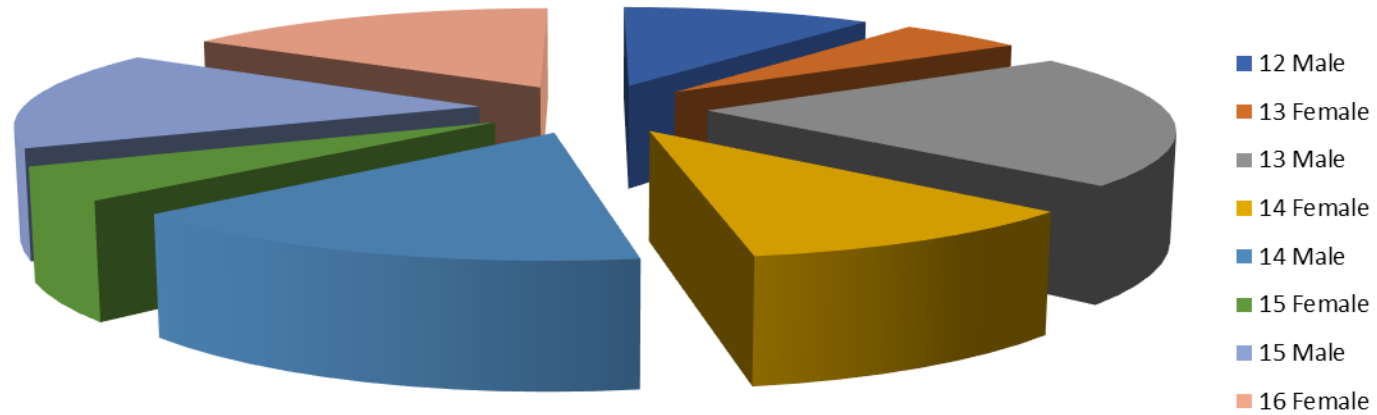


photos:
ICT Guides project

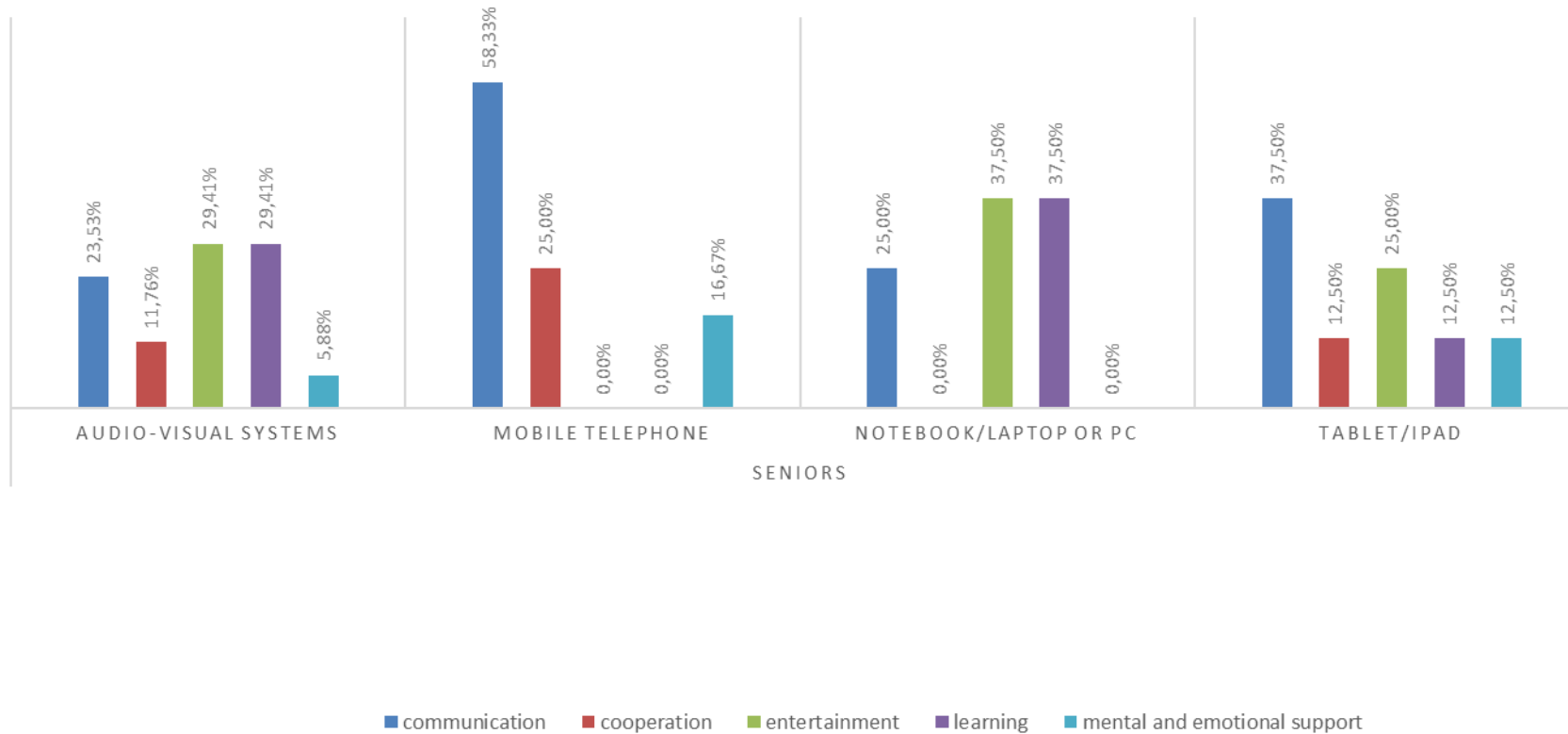
Case:
courses organized by Goteborg

case:	Pupils course -beginning surveys	Pupils course-end surveys	Seniors course -beginning surveys	Seniors course-end surveys	Teachers surveys	Authorities surveys	total
Goteborg	22	19	8	7	7	5	68

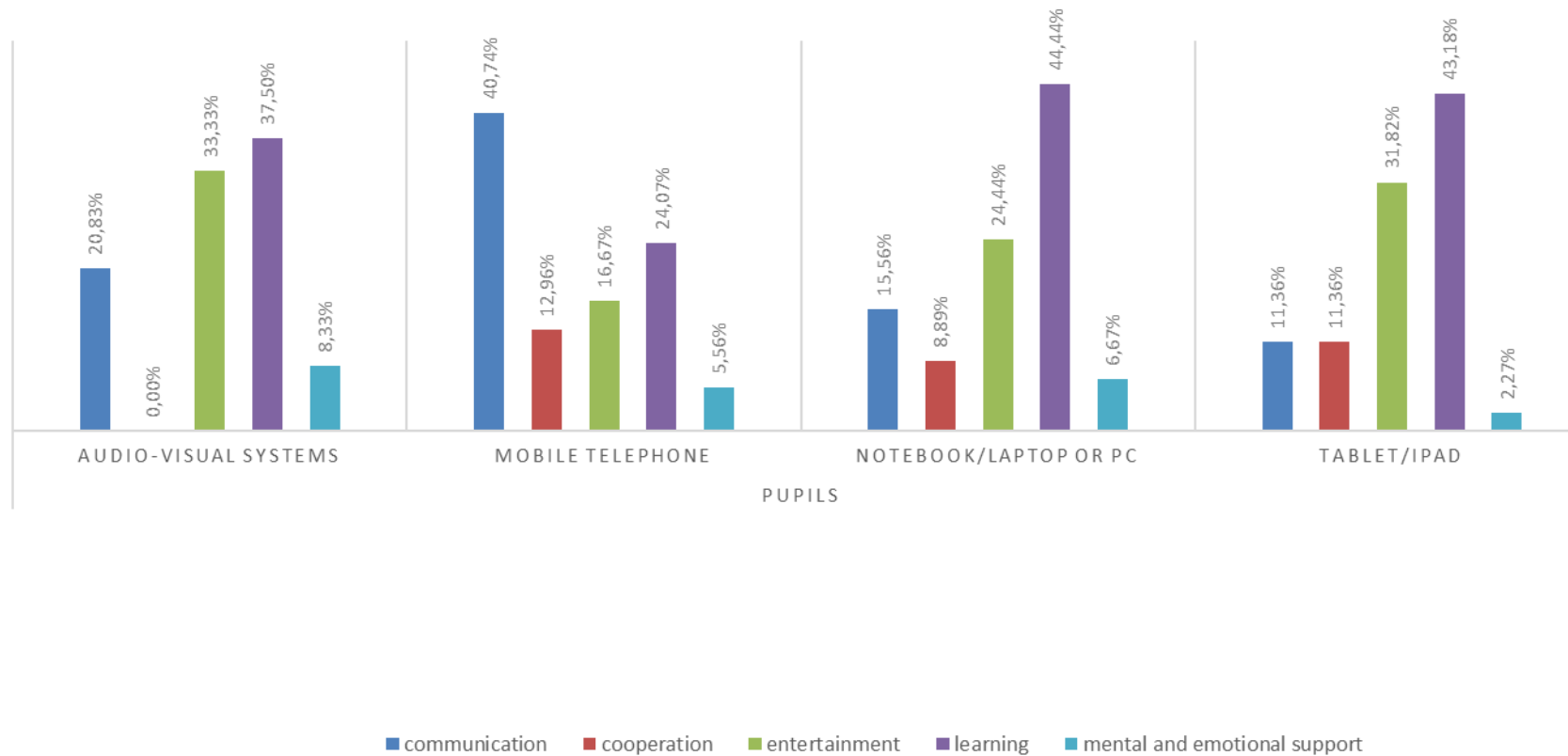
Pupils by age



ICT preferences among the Elderly

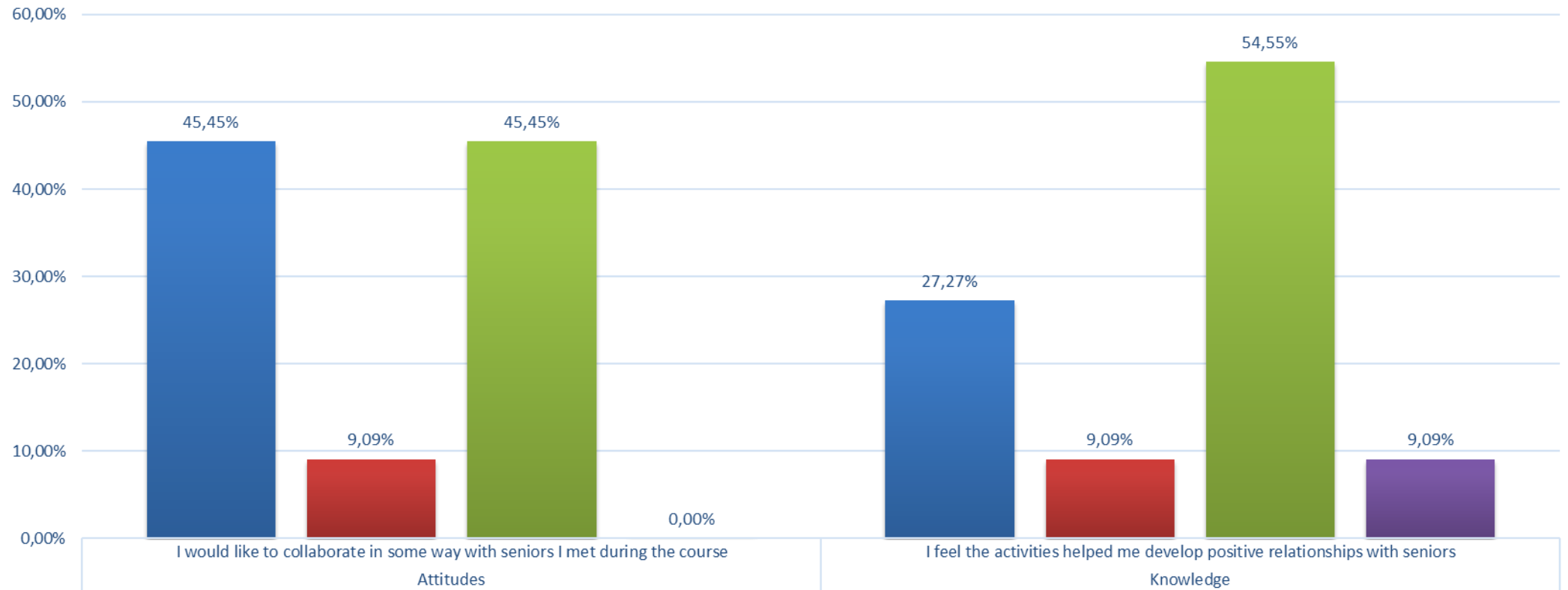


ICT preferences among immigrant youth



Youth & the course

Youth towards the elderly



- agree
- neither disagree nor agree
- strongly agree
- not agree

45,45%

9,09%

45,45%

0,00%

Pupils

27,27%

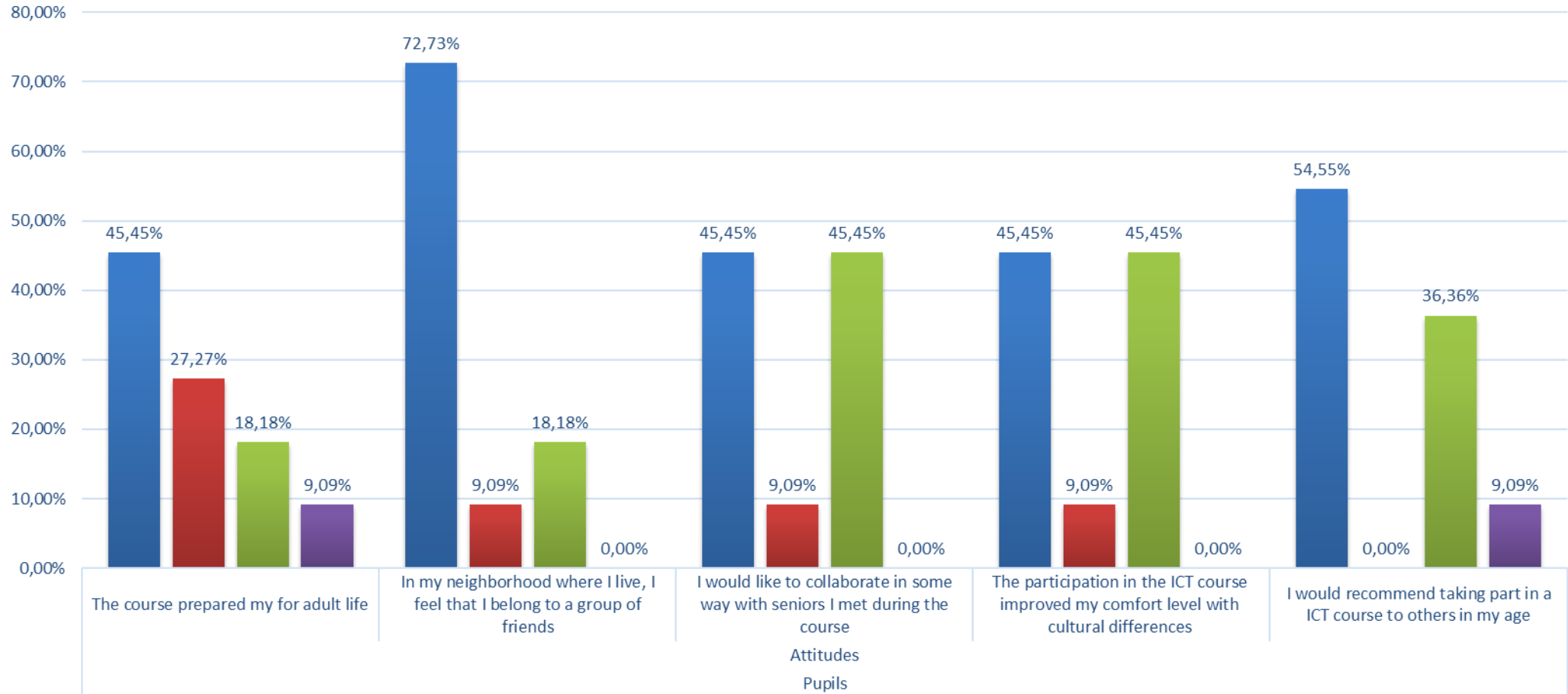
9,09%

54,55%

9,09%

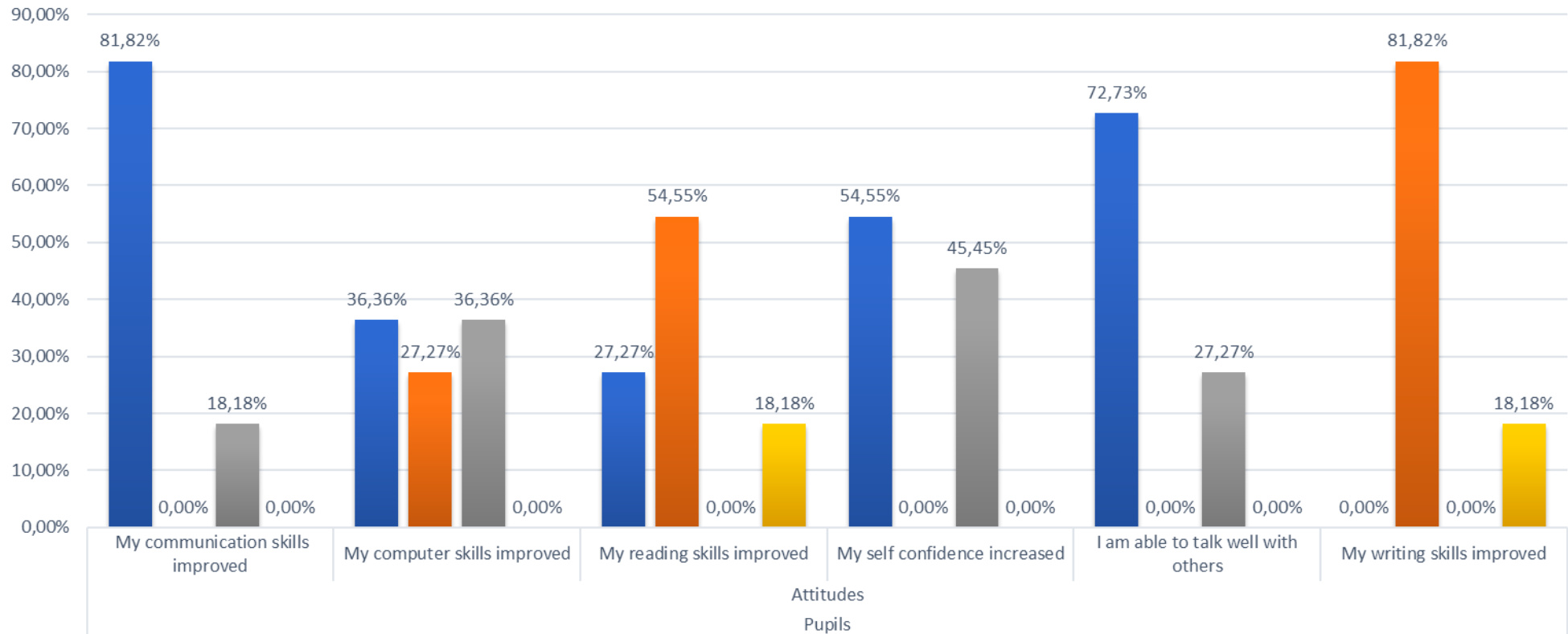
Youth & the course

(preparing for adult life, willingness to collaborate with the elderly, cultural differences)



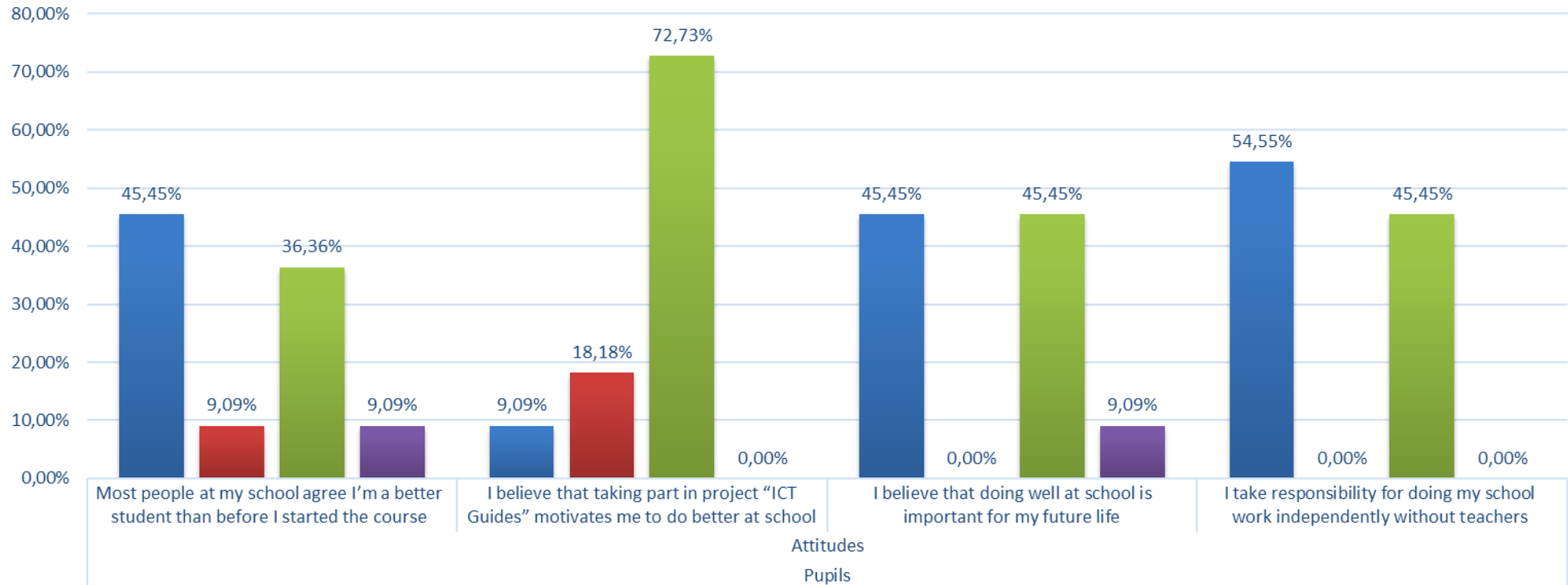
	agree	neither disagree nor agree	strongly agree	not agree
The course prepared my for adult life	45,45%	27,27%	18,18%	9,09%
In my neighborhood where I live, I feel that I belong to a group of friends	72,73%	9,09%	18,18%	0,00%
I would like to collaborate in some way with seniors I met during the course	45,45%	9,09%	45,45%	0,00%
The participation in the ICT course improved my comfort level with cultural differences	45,45%	9,09%	45,45%	0,00%
I would recommend taking part in a ICT course to others in my age	54,55%	0,00%	36,36%	9,09%

Youth about own competencies after the course



■ agree	81,82%	36,36%	27,27%	54,55%	72,73%	0,00%
■ neither disagree nor agree	0,00%	27,27%	54,55%	0,00%	0,00%	81,82%
■ strongly agree	18,18%	36,36%	0,00%	45,45%	27,27%	0,00%
■ not agree	0,00%	0,00%	18,18%	0,00%	0,00%	18,18%

Youth attitudes towards the school



■ agree	45,45%	9,09%	45,45%	54,55%
■ neither disagree nor agree	9,09%	18,18%	0,00%	0,00%
■ strongly agree	36,36%	72,73%	45,45%	45,45%
■ not agree	9,09%	0,00%	9,09%	0,00%

Intergenerational Learning and ICT

- Role of ICT in intergenerational learning: throughout the courses, ICT in the intergenerational learning changed the essence from **catalyst, initiator** of intergenerational learning towards **facilitator** of intergenerational learning

Before the course

The Elderly: to learn technical skills, examples:

“skills development”,
“technical skills like image editing”
“how to find out informational online language learning”,
“about also as a bridge that helps to understand generations”.
“we are looking for sources of information”
“we can learn how to use different application of smartphones”
“search information in internet”

The Elderly: To share life knowledge, examples:

“youth can learn from us Swedish language”
“learning to understand two generations”“I can share life experience with pupils to help them better integrate in the neighborhood”“The course is an opportunity to meet and to tell about the country where I grew up, talking about our history”
“I will share with young immigrants my everyday life, for me meets with them is a chance to talk”
“I tell them about how it was in the past, about school, way of life and lack of electronics”
“The need for respect for adults and each other”

After the course

The Elderly: how to use an iPad, examples

“I learnt more about internet/apps/Facebook”
“Facebook, shopping on Blocket”
“I know now how to search in internet”
“I use now different functions on the iPad”
“I know how to use an iPad, functions and communication”
“I can switch on the iPad and to use apps”
“It is easy to search in internet and read newspaper online”
“I handle the computer better”
“Now I know to use an iPad and watch online TV”, “a little more about the internet”
“I learned all I wanted”
“I know how to install apps, to send pictures and messages”
“I realize that I can do a lot more things digitally than before”

Youth improved language skills, examples

I learnt to speak Swedish” (7)
“For me is important o learn language and learn more about Sweden”
“to learn Swedih and about Swedish history”
“I want to speak „”

Intergenerational Learning and ICT

- The ICT tools, apps, online resources influenced common understanding, were opportunity to introduce themselves and to learn about each other, exchange knowledge (the Elderly: about Sweden) and skills (Youth: how to use an iPad).

The Elderly

"the course gave us things to discuss"

"it was a good starting point to make contact"

"we had something in common to talk about"

"ICT was a common topic for us to talk about".

"ICT tools helped youth to overcome language difficulties"

"I think the device helped us to start a conversation"

"iPad made the contact with the students pleasant and interesting"

"it is so easy to connect online and talk using iPad"

"you can be helped by Google translate if you can't understand each other and look at digital maps to learn about other countries"

Youth

"The iPad was important in the beginning to have something to talk about"

"The iPads were important during meetings with the elderly"

"We had something in common to talk about during the courses"

"using apps like online translator, the conversations seem to be easier"

"internet offered opportunity to tell about own life, culture, customs, country"

Intergenerational Learning and ICT

- Seniors assumed from the beginning that the course will be beneficiary not only for them but also for the youth.

The Elderly

““youth can learn from us Swedish language”

“learning to understand two generations”

“I can share life experience with pupils to help them better integrate in the neighborhood”

“The course is an opportunity to meet and to tell about the country where I grew up, talking about our history”

“I will share with young immigrants my everyday life, for me meets with them is a chance to talk”

“I tell them about how it was in the past, about school, way of life and lack of electronics”

“The need for respect for adults and each other”

We have something in common to work with when we meet”

“We can meet each other and talk about things that are "new" to the seniors”

“the course can help us to share things”

“it is easier to understand each other”

Intergenerational Learning and ICT

- Through the course, it raised by youth the self-confidence.

The Elderly

„TDuringt the course, I experienced an increased self confidence in the students”
“I believe the students felt needed and got some insights about us "old people"
“there is no doubt it was nice for them to teach us elderly”.

Youth

“Before the course I felt a bit happy, now it feels amazing. Before the course I was not sure about myself and now I'm very happy with myself”
“First I was nervous, now I feel proud”
“In the beginning I was not sure if I am doing everything correct, but now, I am pleased with the work I done for seniors in the course”
“I feel good and proud of myself”

Intergenerational Learning and ICT

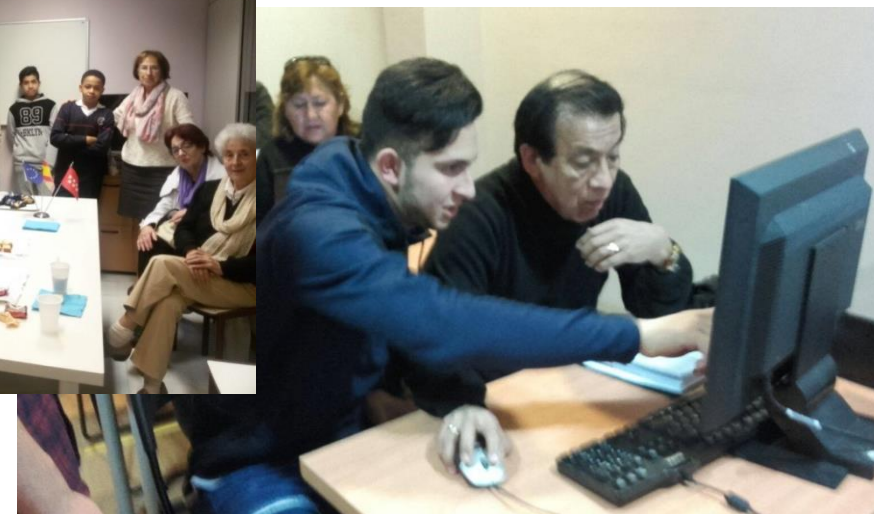
- Our research shows the tendency to understand the intergenerational learning among non-related generations as “**learning about each other**”. This was underlined by seniors giving knowledge of ICT as a secondary priority to the interaction, understanding of the immigrant youth. Youth told us to share information about home land, traditions, family.
- The ICT knowledge gave youth the confidence to interact with the seniors on an equal level.
- ICT facilitated the better interaction and understanding between immigrant youth and the seniors by breaking down the stereotypical views and nullifying any cultural differences during the interaction.

Empowerment

- Intergenerational learning with ICT is a significant sociocultural platform for knowledge exchange and empowerment. Both, young immigrant pupils and older adults described their interactions with others as a power to change their life situation and “exchange of knowledge” that might help each other.
- The seniors attributed their empowerment to the desire to influence the immigrant youth in respect to help young people to improve language skills and to start their life in a new country (**empowered from their belief to change external circumstances**). Pupils attributed their empowerment to their existing knowledge and the willingness to share their own technical knowledge and skills (ie. how to use tablets, smartphones) with the older generation (**empowered from internal belief in own skills**).

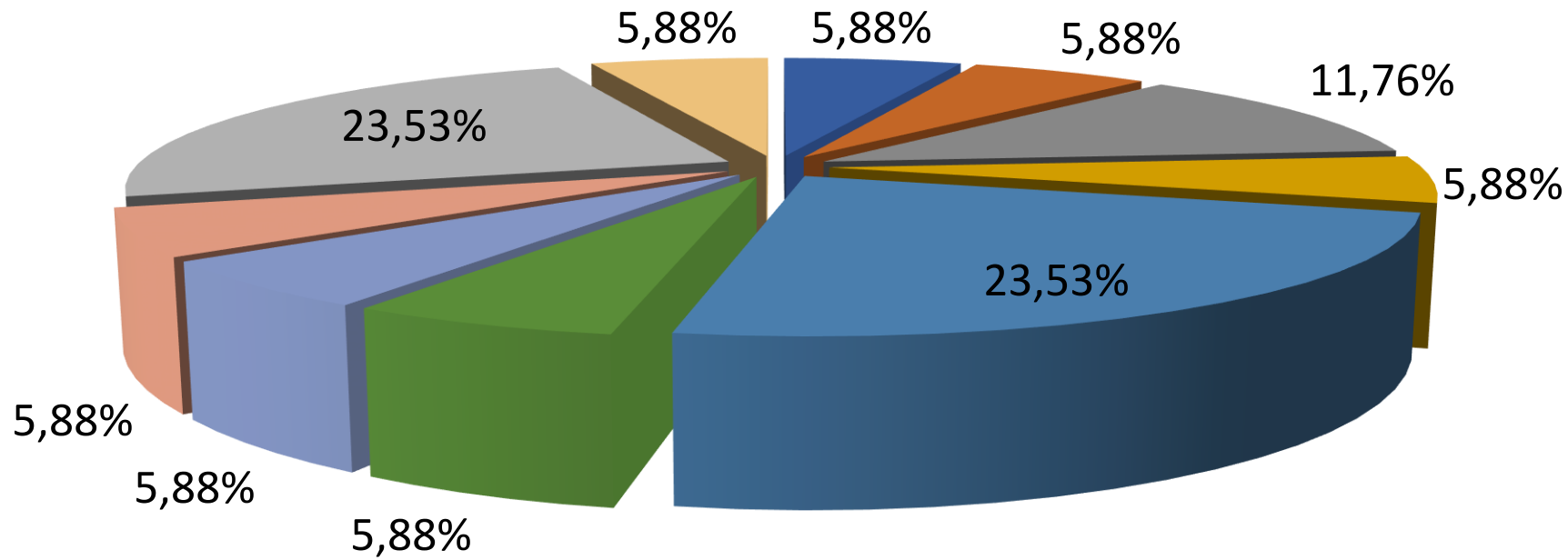
Case: courses organized by Madryt

case:	Pupils course -beginning surveys	Pupils course-end surveys	Seniors course -beginning surveys	Seniors course-end surveys	Teachers surveys	Authorities surveys	<i>total</i>
Madrid	17	19	10	24	1	8	79



photos: ICT Guides project

Pupils' age



12	11,76%
Female	5,88%
Male	5,88%
13	17,65%
Female	11,76%
Male	5,88%
14	29,41%
Female	23,53%
Male	5,88%
15	5,88%
Male	5,88%
16	29,41%
Female	5,88%
Male	23,53%
16+	5,88%
Female	5,88%

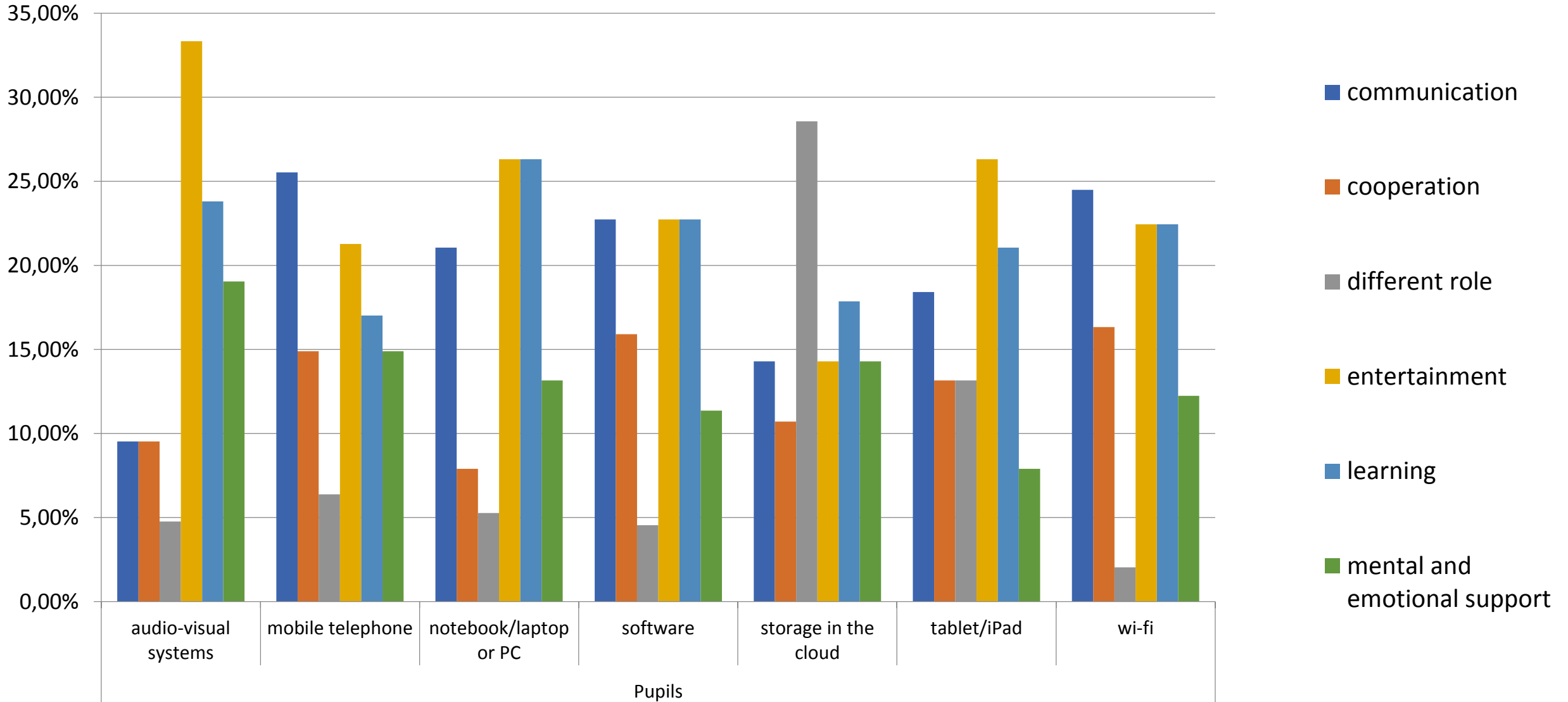
To the question:

Can you explain how you imagine the perfect school?

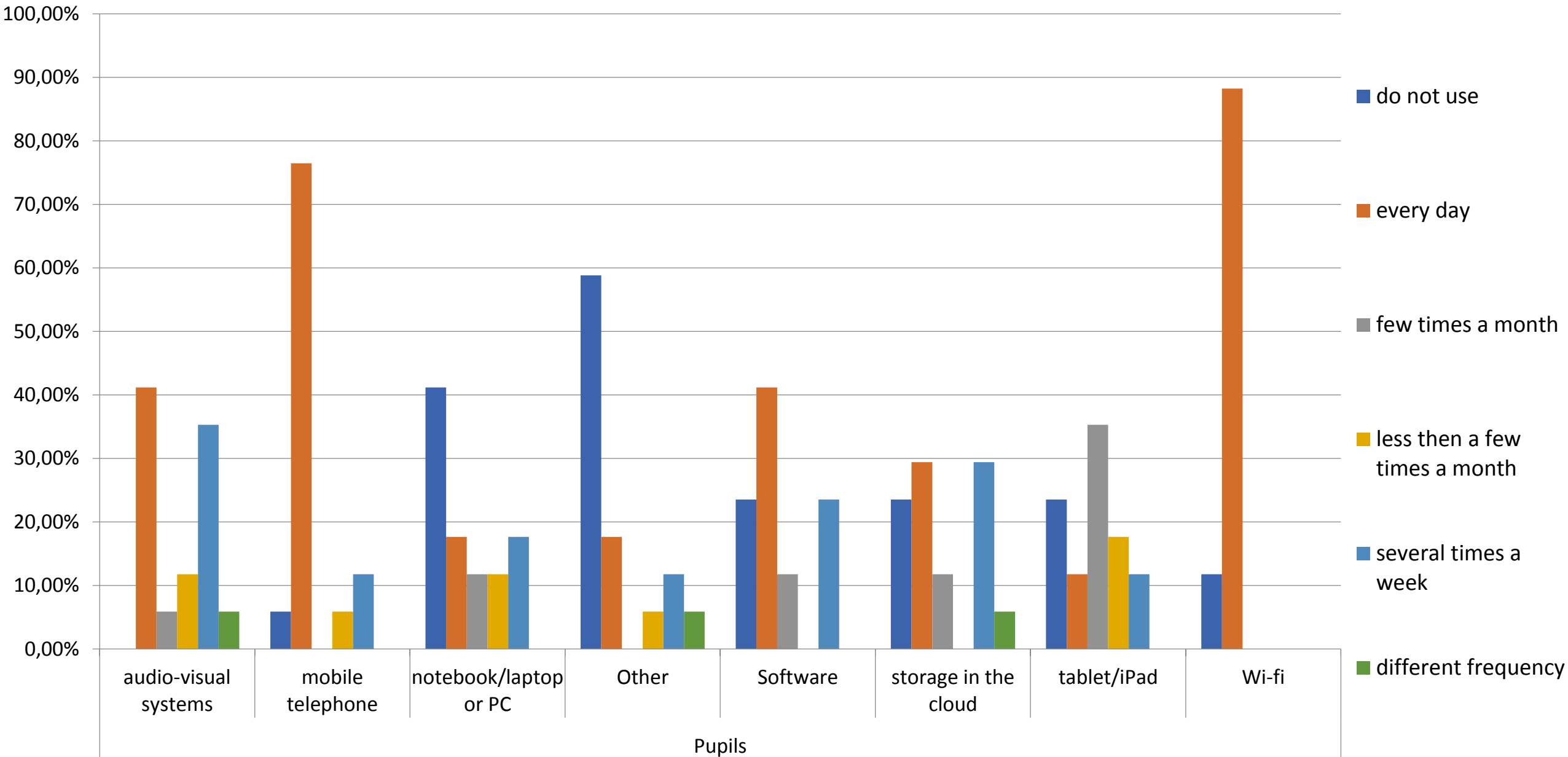
pupils answered:

- *With a computer for each student and uniform.*
- *a school where they leave 15 minutes of free time*
- *well without duties, because a level of perfection varies with respect to the different points of view of each person*
- *with more free time*
- *good teachers, few homework and more recess*
- *without too much pressure*
- *good communication and good atmosphere*
- *A school in which you want to go to learn every day in a fun and innovative way.*
- *With the best students and teachers*
- *a perfect school would be a school in which learning would be easy to understand and there would not be so many hours of study*
- *No, there is no perfect school because in the world there is nothing perfect.*
- *Carrying the tablet, so as not to carry so many books*
- *computer instead of books*

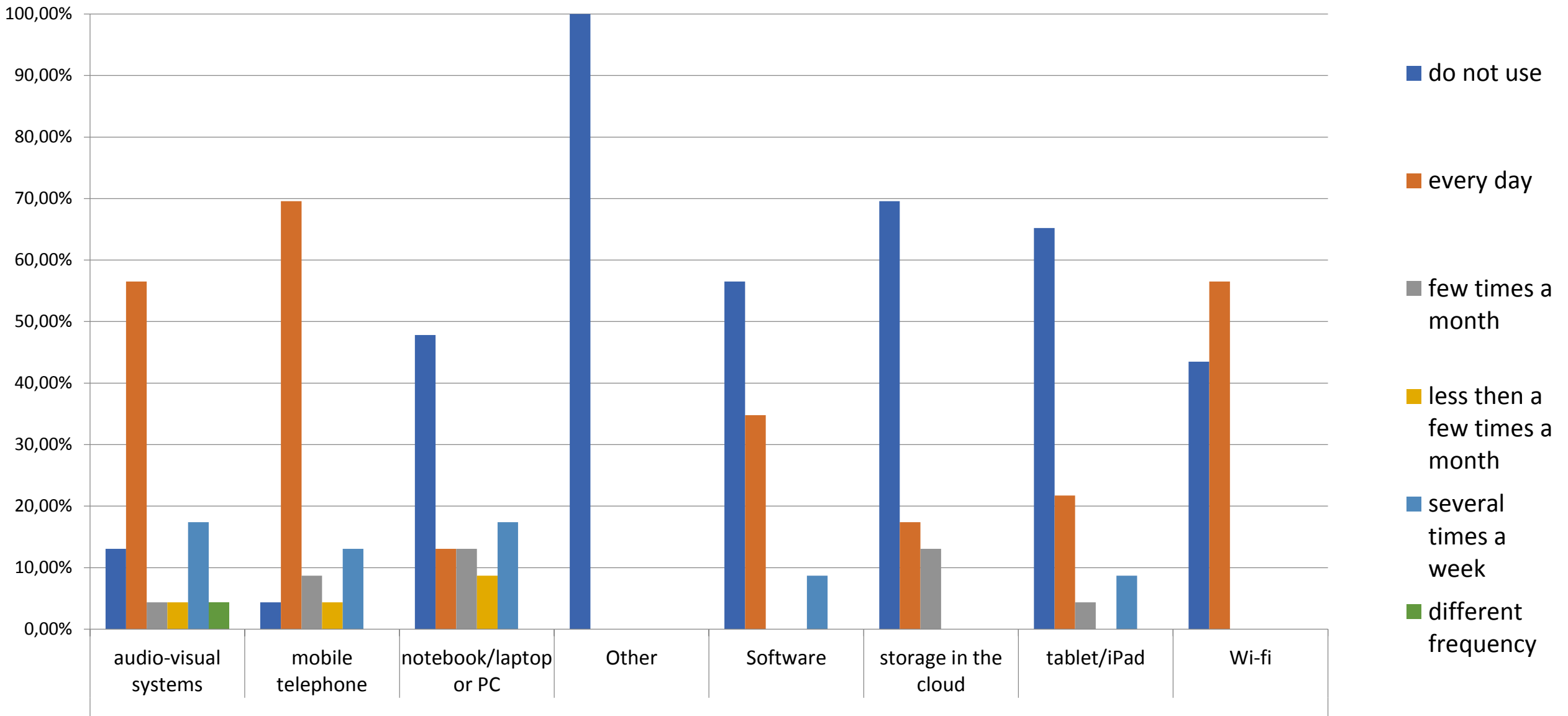
ICT tools role in pupils life



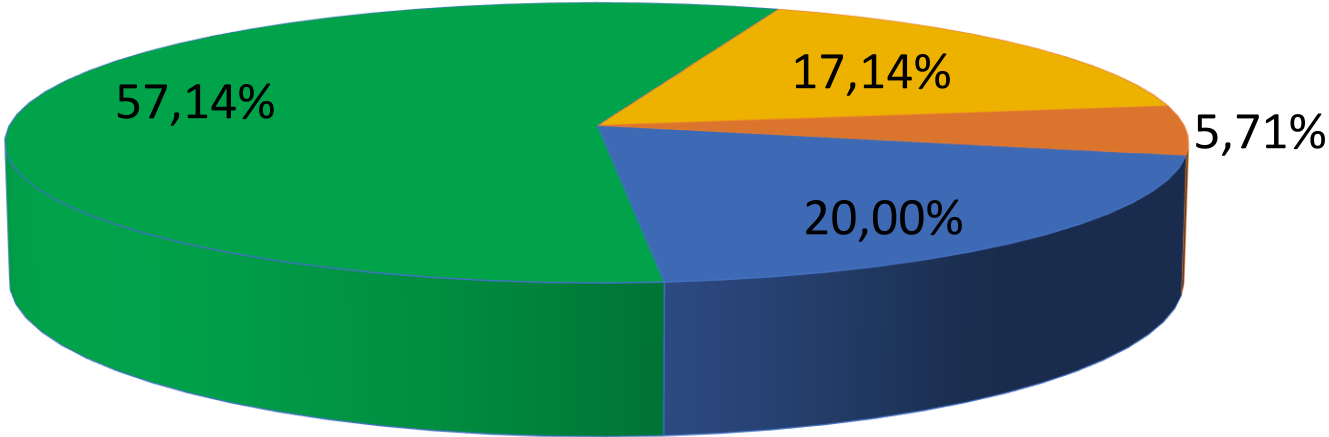
Pupils' frequency of ITC tools using



Seniors' frequency of ITC tools using



Has the role of the ICT tools in your life changed after the course?



■ NO pupils
■ YES pupils

■ NO Seniors
■ YES Seniors

NO	22,86%
pupils	17,14%
seniors	5,71%
YES	77,14%
pupils	20,00%
seniors	57,14%

Why “yes”?

he increased his self-confidence

they were happy

I've seen them very nice

has met other people

better understanding

because they stay busy and away from being in the streets

because they relate more

Because it is a medium where they can connect with their family and friends

Why “no”?

no much

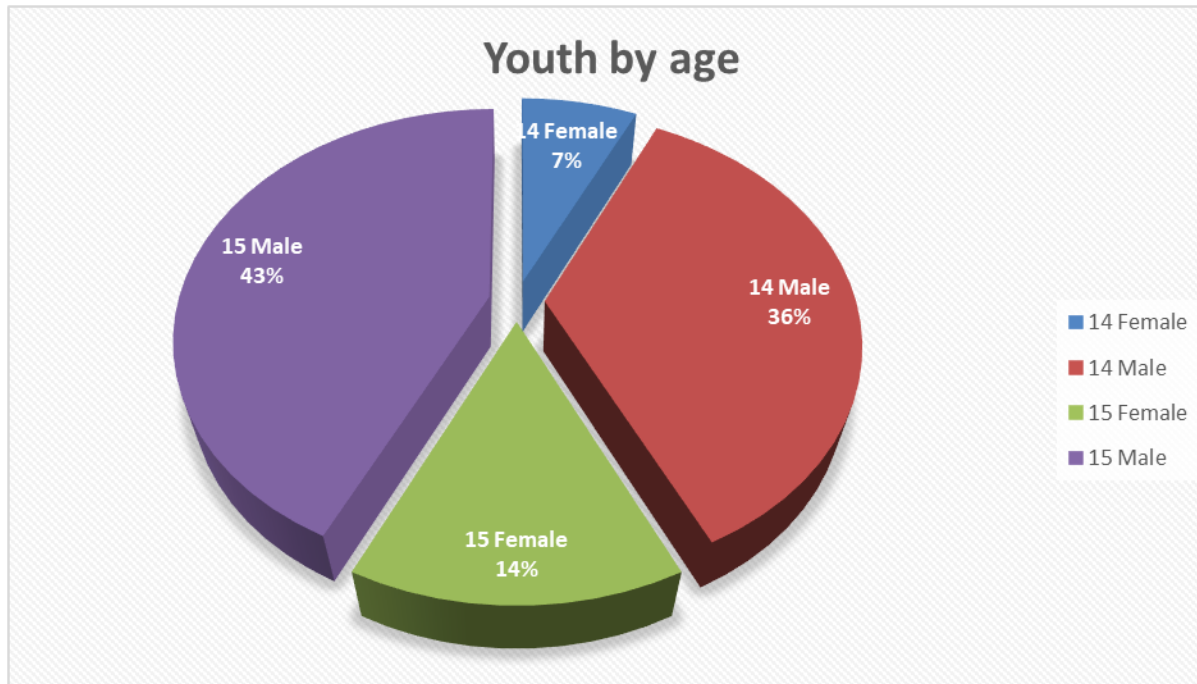
<i>What did you want to learn from seniors during the ICT course?</i>	<i>What did you really learn?</i>
<p><i>know them better</i></p> <p><i>Cook</i></p> <p><i>History of Spain</i></p> <p><i>nothing special</i></p> <p><i>to be nice</i></p> <p><i>relate better</i></p> <p><i>how things were done before to entertain themselves</i></p> <p><i>new experiences</i></p> <p><i>I don't know</i></p> <p><i>Not because I have already learned everything I wanted to know about them.</i></p> <p><i>The truth I have only learned that this generation of young people is more advanced</i></p> <p><i>Experience of the elderly</i></p> <p><i>I would have liked to learn things or to share with me more knowledge</i></p> <p><i>give advice</i></p> <p><i>your learning and your knowledge</i></p>	<p><i>communicate better (2)</i></p> <p><i>new app</i></p> <p><i>new programs</i></p> <p><i>improve relationships</i></p> <p><i>Spanish</i></p> <p><i>to help the elderly</i></p> <p><i>life advice</i></p> <p><i>Computing</i></p> <p><i>His way of thinking when technology was not so advanced.</i></p> <p><i>My ability to teach others</i></p> <p><i>To see life in another way as they lived it</i></p> <p><i>I wanted to learn to have more patience and to explain things in a simple way, so that, in the future, it would be even easier for me to express myself</i></p> <p><i>communication with the elderly</i></p> <p><i>I like IT because I love computers and I would like to learn more than I know</i></p>

<i>What seniors wanted to learn form you?</i>	<i>What seniors really learned from you?</i>
<p><i>manage on the internet</i></p> <p><i>use the Internet</i></p> <p><i>work on computer</i></p> <p><i>search information on the internet</i></p> <p><i>use computer</i></p> <p><i>Internet</i></p> <p><i>how to use interne, make accounts and understand the new generation</i></p> <p><i>how to manage ICT</i></p> <p><i>Share images</i></p> <p><i>I believe that older people wanted to learn from me the use of new technologies and their use in everyday life</i></p> <p><i>My knowledge about new technologies</i></p> <p><i>to better use ICT</i></p> <p><i>to use the tic tools correctly</i></p> <p><i>my knowledge about the new technologies.</i></p> <p><i>my good to be</i></p>	<p><i>use Skype</i></p> <p><i>to understand the technology</i></p> <p><i>more information about ICT</i></p> <p><i>What was on the sheet</i></p> <p><i>They have learned how to use and how to take advantage of new technologies.</i></p> <p><i>How advanced we are and what we can get to teach them today</i></p> <p><i>More experience of new technologies</i></p> <p><i>within what can be used or coped with better</i></p> <p><i>new formations of tic.</i></p> <p><i>my wisdom</i></p>

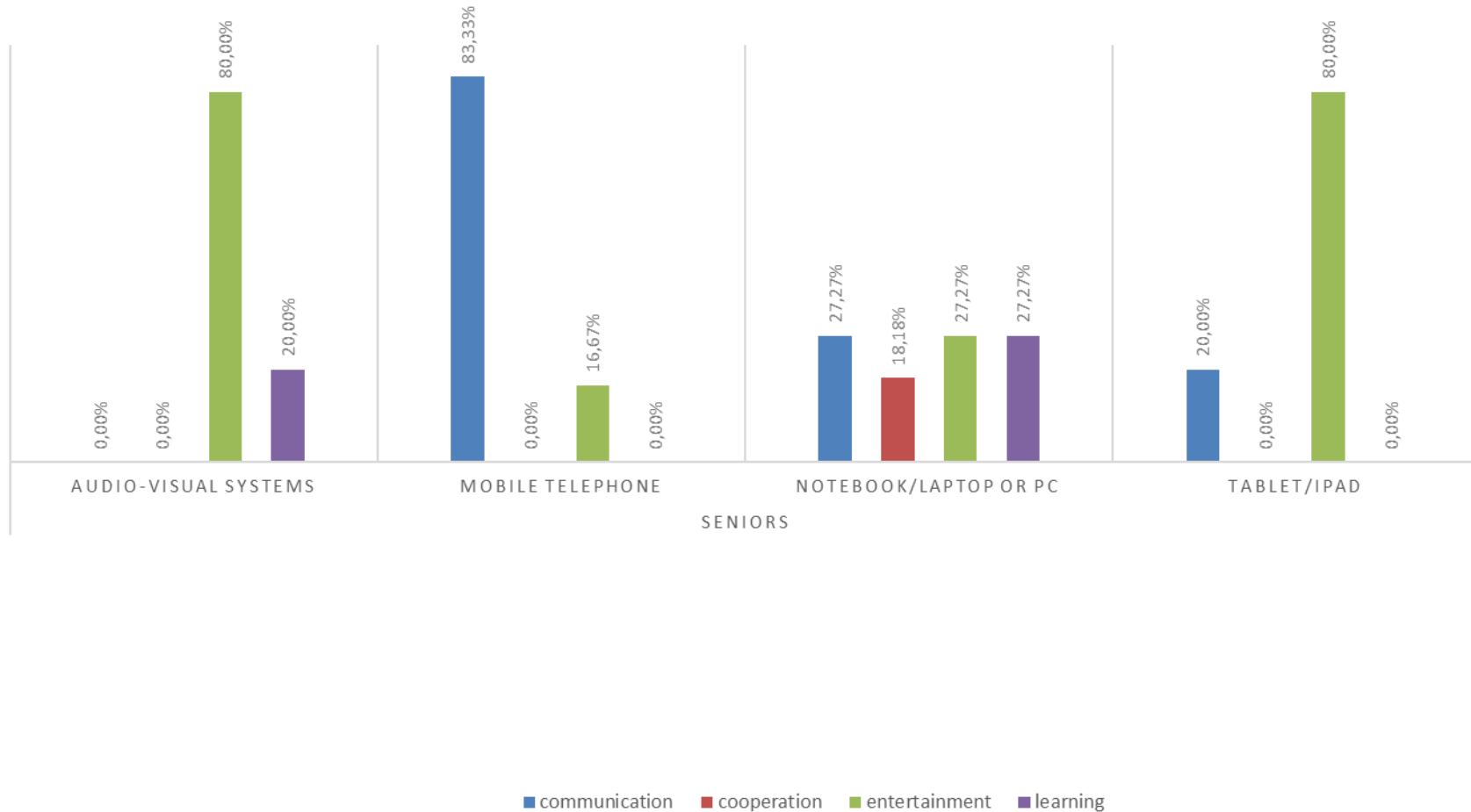
<i>What do you want to teach pupils during the ICT course?</i>	<i>What do you learned from pupils?</i>
<p><i>something about how we are in Madrid</i></p> <p><i>good manners,</i></p> <p><i>what I learned in my life course and also share what my experience was like</i></p> <p><i>I am not a teacher</i></p> <p><i>my way of communicating when the technology was not so advanced</i></p>	<p><i>More things (2)</i></p> <p><i>connect me on skype</i></p> <p><i>use internet</i></p> <p><i>use some tools</i></p> <p><i>look for documents, addresses of institutions</i></p> <p><i>better manage the computer</i></p> <p><i>has made better use of new technologies</i></p> <p><i>I learned to handle the mouse</i></p> <p><i>to manage a computer and be able to look for what interests me</i></p> <p><i>I have learned to better manage ICT</i></p> <p><i>not really because it's basic</i></p> <p><i>That technology helps us and makes learning and day-to-day easier</i></p>

Case: courses organized by Berlin

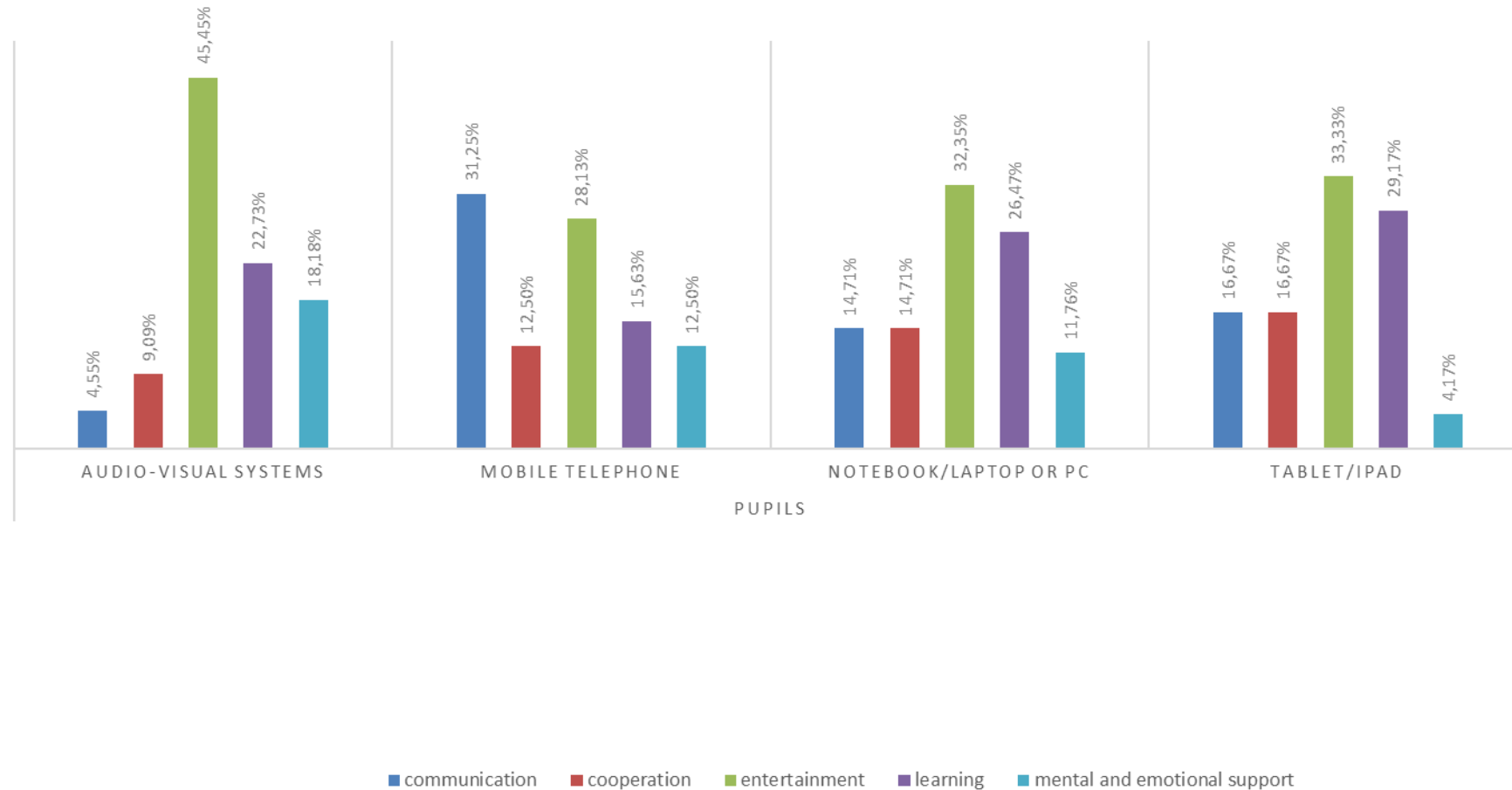
case:	Pupils course -beginning surveys	Pupils course-end surveys	Seniors course -beginning surveys	Seniors course-end surveys	Teachers surveys	Authorities surveys	<i>total</i>
Berlin	14	0	12	1	1	3	31



ICT preferences among the Elderly



ICT preferences among immigrant youth



Intergenerational Learning and ICT

- The role of ICT in intergenerational learning was perceived by seniors as a good start point to make first contact, cooperate, lead common activities.

Seniors:

“ICT is a reason for a meeting and conversation during I can help young people in life telling about my life and experiences”

“ICT is a great way to show that we can all learn from each other”

“Maybe I can convince the young people in the cooperation that the school is important”

“ICT gives us the opportunity to get in touch and get to know each other. This would help young people to find meaning in their work and I could share my experience with them”

“Through ICT, young people can see that they can do something and teach someone. So maybe they see that it is worth to do something with someone like me”

ICT and school

- Using ICT in school learning was a very significant and recurrent topic of discussions throughout the interviews and conversations with teachers and youth. Youth related ICT tools to the school subjects and type of activities. Teachers however saw in distance learning opportunities for youth to succeed in school.

Youth

“It would be more fun to learn”

“I can learn better with a tablet”

“I could do everything faster”

“It's more fun with tablet”

“In Math tables are useful”

“In English”

“in all teaching subjects”

“useful for homework”

“tablet would be good to incorporate videos from youtube in to the classroom learning”

“I wish to use apps like google translator, calculator of google search engine for learning and gathering all sort of information”

Teachers

“Even if students are not in the school, they can still be reached by teachers through ICT and be more self-confident in their competences”

“ICT offers opportunities for individual learning for those immigrant pupils that have got specific educational needs”

“for sure attract young people to stay in school, in particular tablets would give joy and pleasure with learning”

“ICT tools would help immigrants feel more connected to school and so to participate more regularly in school activities”

Youth and school

- Reasons for early school leaving of immigrant youth

Teachers:

“not efficient parental support of young people”

“lack of perspectives for immigrants”

“not enough quick action of school with intervention measurements”

“School could organize compensation activities for those with poor language competencies”

“school didn’t timely undertake a contact or stay in cooperation with families, when first sighs of school leaving appears”

“frequent school absence”

“lack of active participation in the classroom activities”

“lack of language skills”,

“poor performance and bad results in a lot of subjects”,

“parents who do not care about their children”

“poverty in the family”

“lack of confidence in own abilities”

“lack of confidence in learning”

“fear of school”

“low self-esteem in own capacities”

- We asked also immigrant pupils about the reasons for early school leaving. Youth was referring to interpersonal relations and lack of motivation, examples:

Youth:

“unfriendly peers”

“because I was tired”

“to much stress that brings nothing good”

“there are days without any reasons when I simply do not want school at all”

“Because they have problems with school or have problems with people at school”

“they are lazy and think that they are cool with it but not all are like that”

“Fear of classmates, or fear of parents with bad grades”

“situation, problems at home keep them away from school”

Intergenerational Learning and ICT

- Having the experience with intergenerational learning after the courses, pupils gave recommendations regarding best ways of interacting with seniors when explaining usage of mobile devices, examples:
 - *"explain slowly and cheerfully"*
 - *"With cheerfulness and slowly explain"*
 - *"In which we make the difficult things before it"*
 - *"That you get to know the future"*
 - *"Have someone around it"*
 - *"That I fool them and show how great it is"*
 - *"Maybe the seniors would like to learn something from us"*
 - *"She could contact family members again"*
 - *"A good explanation or show them"*
 - *"Communicate with the family over the Internet"*
 - *"Contact with younger people"*
 -

- Regarding the course, we asked seniors what would pupils need to be able to learn with youth, seniors mentioned *“patience”, “interest”, “open-mindedness”, “ability to speak a little bit German”, “interest in adult life”*. When we asked however, what might seniors require to learn with pupils, we got similar answers like *“patience”, “open-mindedness”, “interest”*. New was however *“willingness to learn”, “understanding for young people and enthusiasm”, “experience”* also *“language”* (example: *“they need be able to speak a little German”*), willingness for conversation (example: *“important is that they want to talk to me”*).

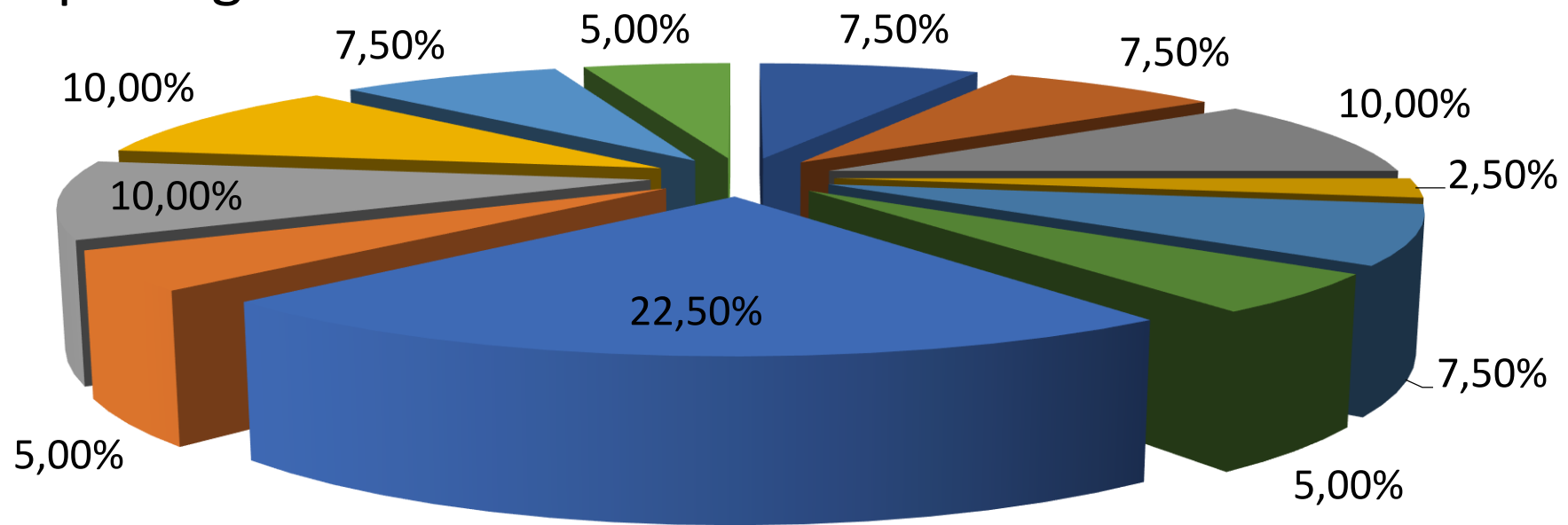
Case: courses organized by Sheffield

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Sheffield	40	22	23	17	1	0	103



photos: ICT Guides project

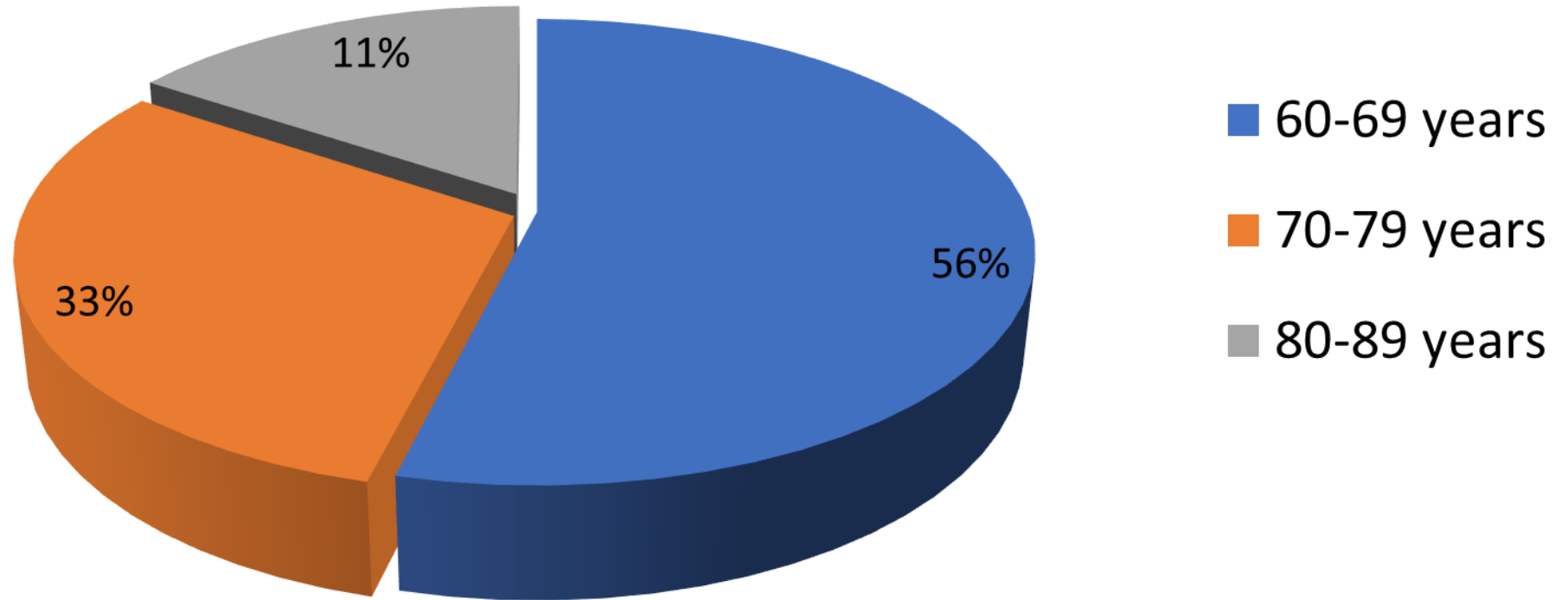
Pupils' age

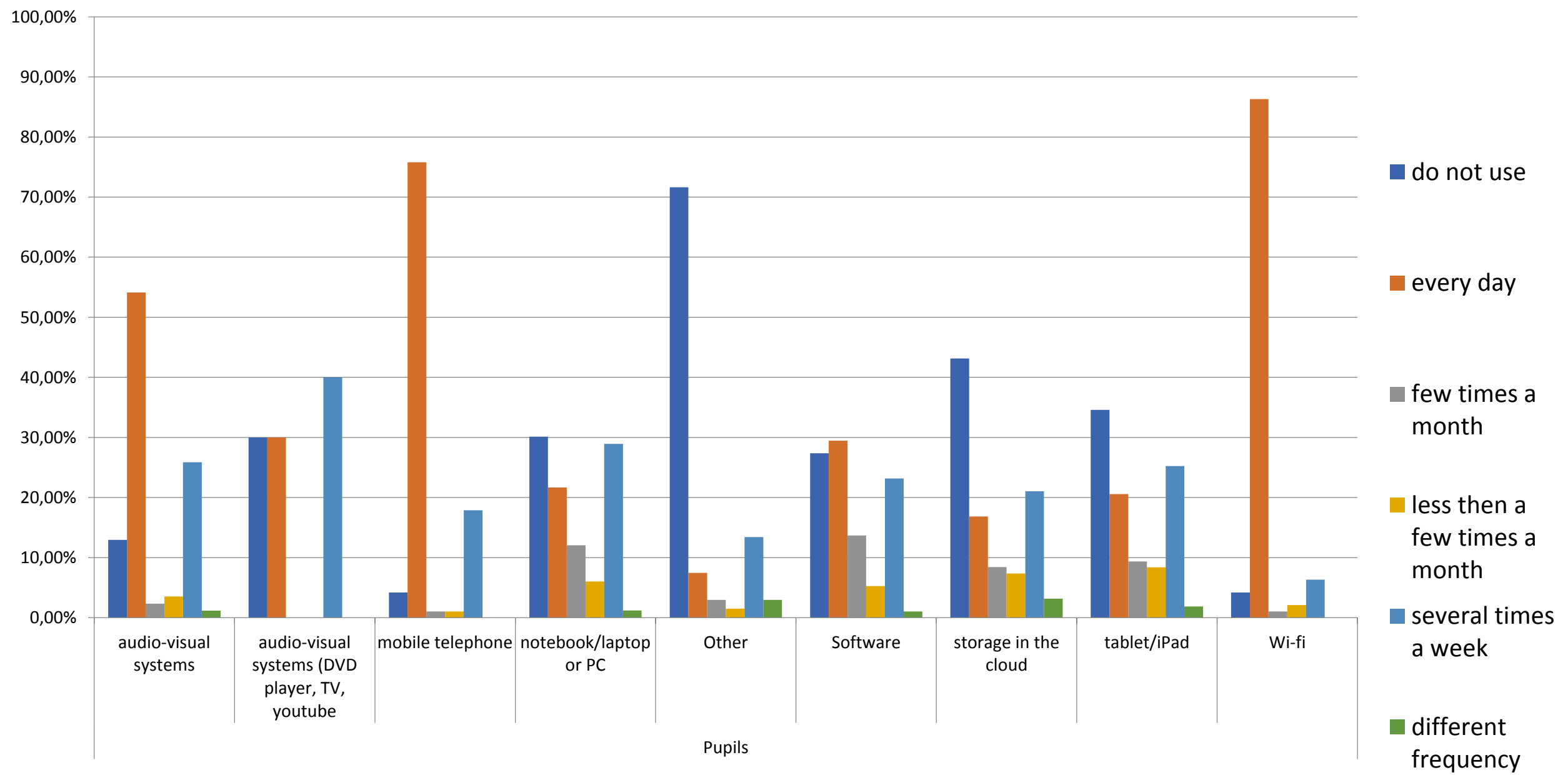


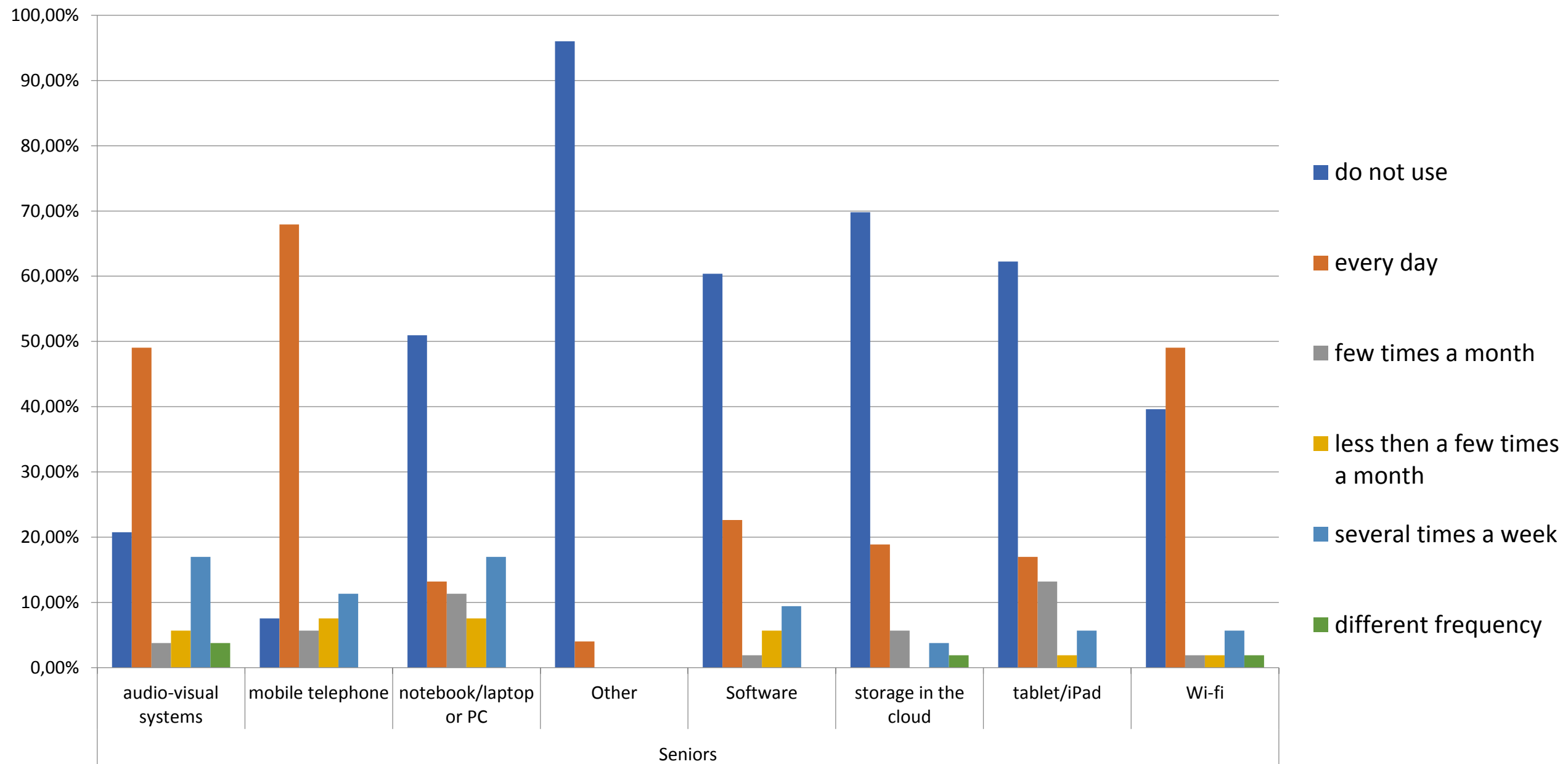
- 12 Female ■ 12 Male ■ 13 Female ■ 13 Male ■ 14 Female ■ 14 Male
- 15 Female ■ 15 Male ■ 16 Female ■ 16 Male ■ 16+ Female ■ 16+ Male

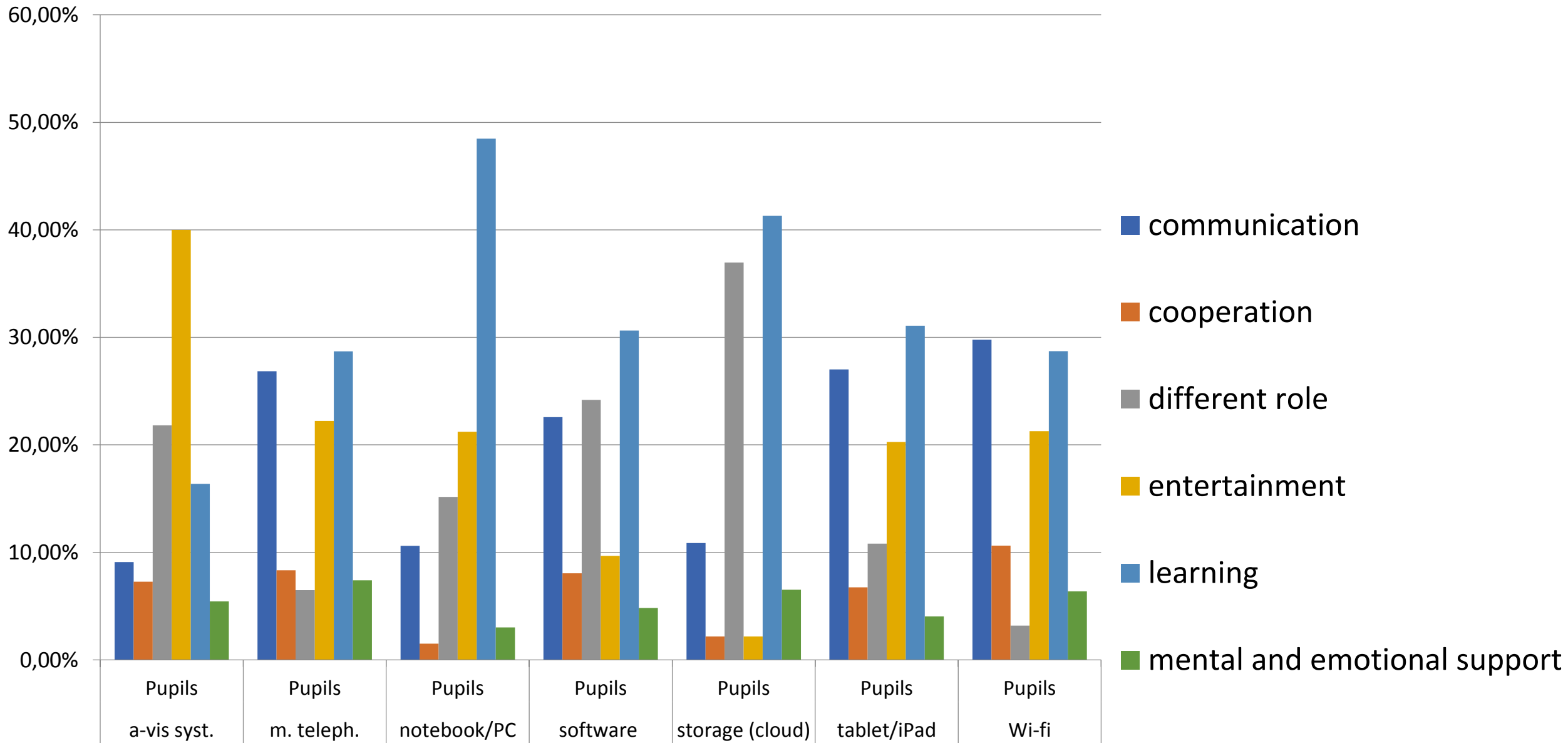
age	%
12	15,00%
Female	7,50%
Male	7,50%
13	12,50%
Female	10,00%
Male	2,50%
14	12,50%
Female	7,50%
Male	5,00%
15	27,50%
Female	22,50%
Male	5,00%
16	20,00%
Female	10,00%
Male	10,00%
16+	12,50%
Female	7,50%
Male	5,00%
	100,00%

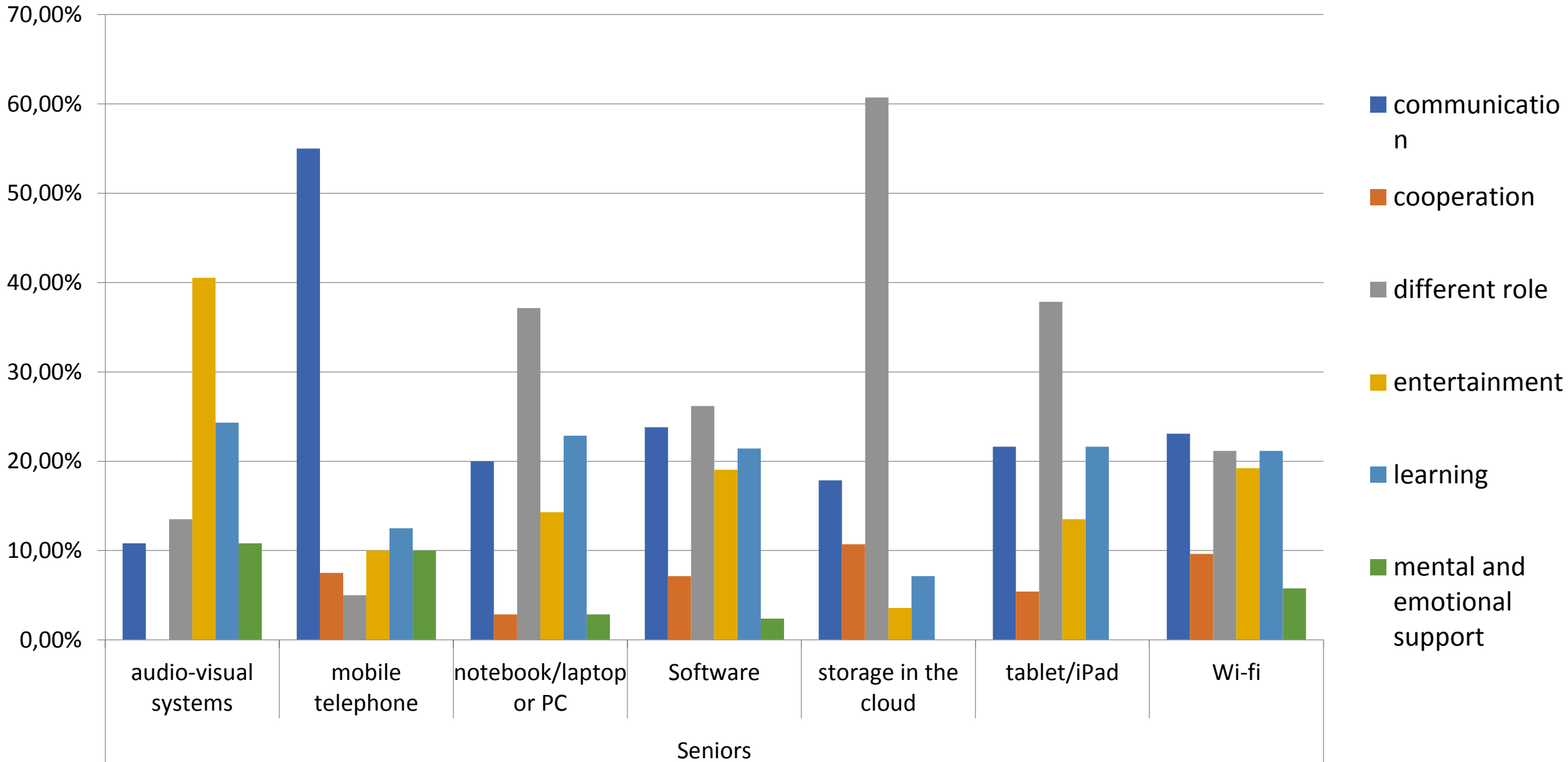
Seniors' age



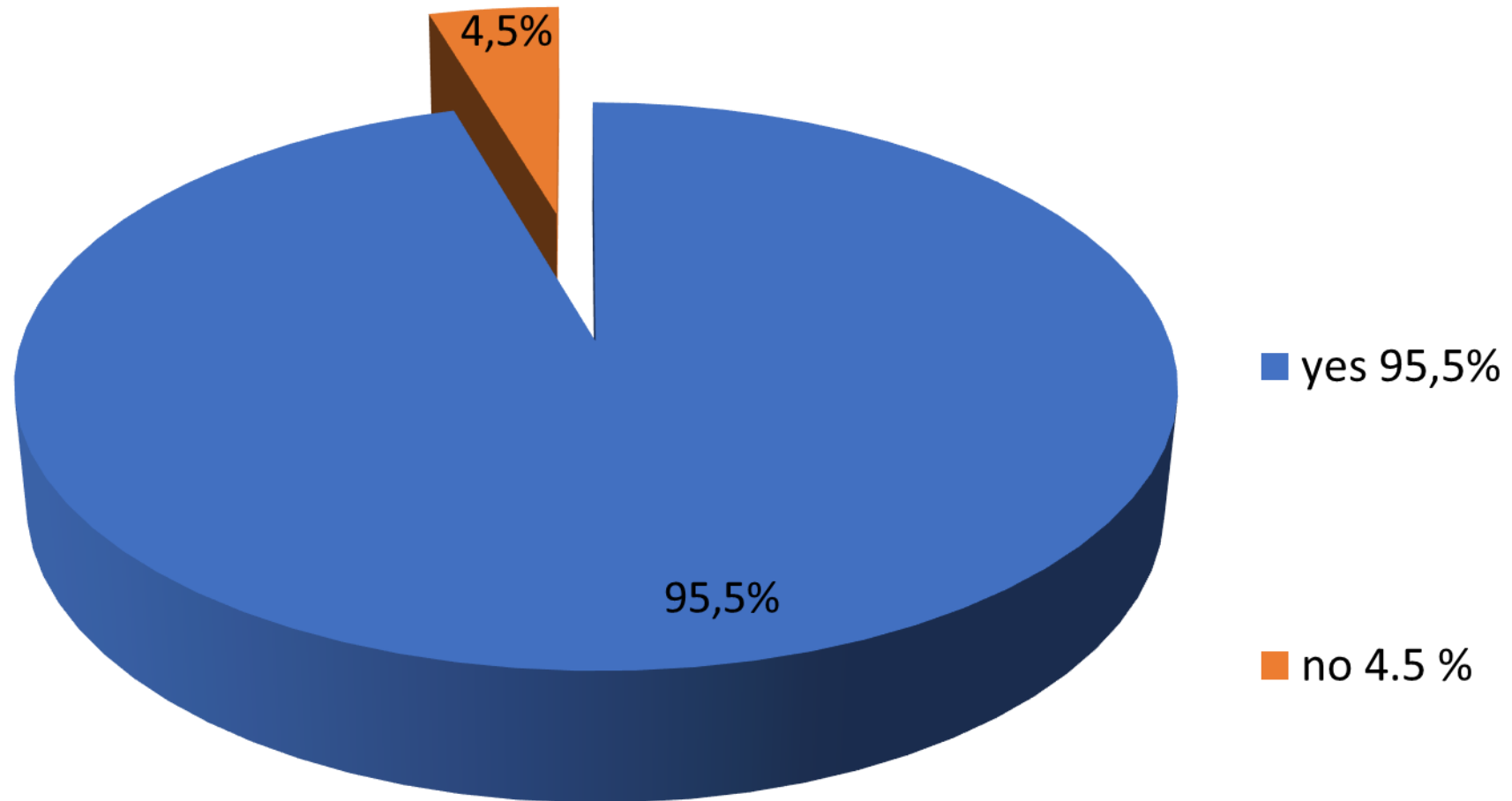








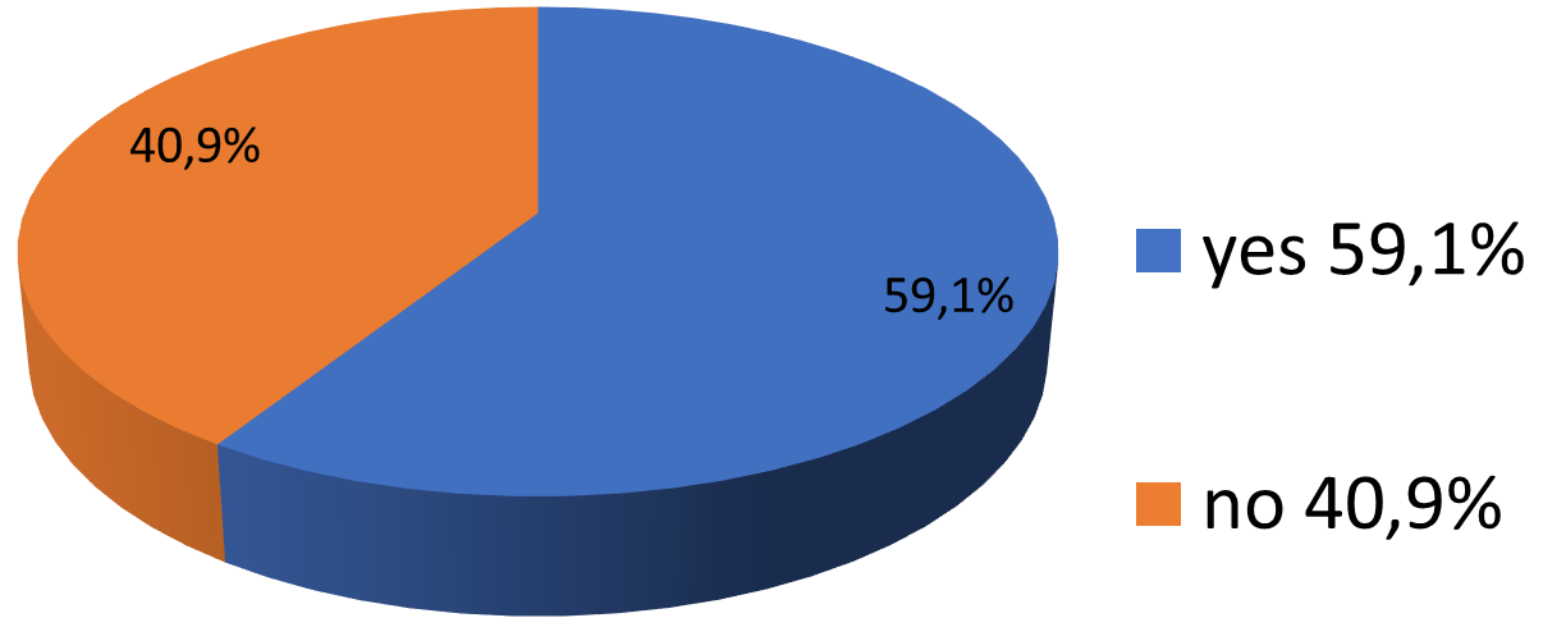
Has the role of the ICT tools in your life changed after the course?



<i>What did you want to learn from seniors during the ICT course?</i>	<i>What did you really learn?</i>
<p><i>how to communicate, talk English properly (3)</i></p> <p><i>Lots of things around me. And how to work with the internet safety. (3)</i></p> <p><i>English language (2)</i></p> <p><i>The language (2)</i></p> <p><i>How to talk to old people</i></p> <p><i>How to talk with an old person</i></p> <p><i>How to communicate and talk English properly</i></p> <p><i>I can learn to make a game</i></p> <p><i>English Language</i></p> <p><i>English</i></p> <p><i>The past</i></p> <p><i>No</i></p> <p><i>The past</i></p> <p><i>I wanted to learn how to be good with older people</i></p> <p><i>I want learn English</i></p> <p><i>I wanted to learn how to speak English better</i></p>	<p><i>I learnt how to talk to old people (2)</i></p> <p><i>Be sure of who and when u need to use wifi or the internet to search for words vocabulary. (2)</i></p> <p><i>Some English words (2)</i></p> <p><i>Some things it's good for a future (2)</i></p> <p><i>How to talk to old people</i></p> <p><i>I learnt that old people don't use Wifi</i></p> <p><i>I learnt to make a game</i></p> <p><i>Not answered</i></p> <p><i>How to talk to people</i></p> <p><i>I learnt how to talk</i></p> <p><i>how to talk to old people</i></p> <p><i>I learnt that when you are old you can retire and live in a retirement home</i></p> <p><i>No</i></p> <p><i>I learnt old people live in a retirement home (who have retired from their jobs)</i></p> <p><i>Be sure of who and when u need to use wifi or the internet to search for words vocabulary.</i></p> <p><i>I like to know about history and I learnt how the schools were when Barrie went to school</i></p> <p><i>I learnt every thing</i></p> <p><i>I practised my conversation</i></p>

<i>What do you think what seniors wanted to learn form you?</i>	<i>What do you think seniors learned from you?</i>
<p><i>how to use their phones (5)</i></p> <p><i>How to use the internet safety and how to use the internet on</i></p> <p><i>how to use search where to go find what they want. (2)</i></p> <p><i>How to use the technology (2)</i></p> <p><i>The technology (2)</i></p> <p><i>How to use their phones</i></p> <p><i>He's older than me</i></p> <p><i>How to use an iPad</i></p> <p><i>How to use a phone</i></p> <p><i>How technology works right now</i></p> <p><i>No</i></p> <p><i>How technology works now</i></p> <p><i>How to use the internet safety and how to use the internet on</i></p> <p><i>how to search where to go and to find what they want.</i></p> <p><i>How to use his phone better</i></p> <p><i>How to video call in messenger</i></p> <p><i>How to use modern technology</i></p>	<p><i>how to use their devices (5)</i></p> <p><i>How to use their devices (2)</i></p> <p><i>How to use thier phones while searching or calling someone</i></p> <p><i>and even sending messages from someone who is far from</i></p> <p><i>them (2)</i></p> <p><i>How to use Whats App (2)</i></p> <p><i>F (2)</i></p> <p><i>more games</i></p> <p><i>Not answered</i></p> <p><i>How to take a picture, how to downloading stuff.</i></p> <p><i>No</i></p> <p><i>How to download stuff</i></p> <p><i>How to use their phones while searching or calling someone</i></p> <p><i>and even sending messages from someone who is far from</i></p> <p><i>them.</i></p> <p><i>I think he did learn that</i></p> <p><i>They learn how to use and practised</i></p> <p><i>About Facebook</i></p>

Has your opinion about education changed after course?



Why?

Not answered (6)

I have learnt alot (2)

I still believe you need school to have a better future (2)

Becouseit helped me to be more convenient and be responsible for myself (2)

I have always thought education was important (2)

Its easy now after we learn more

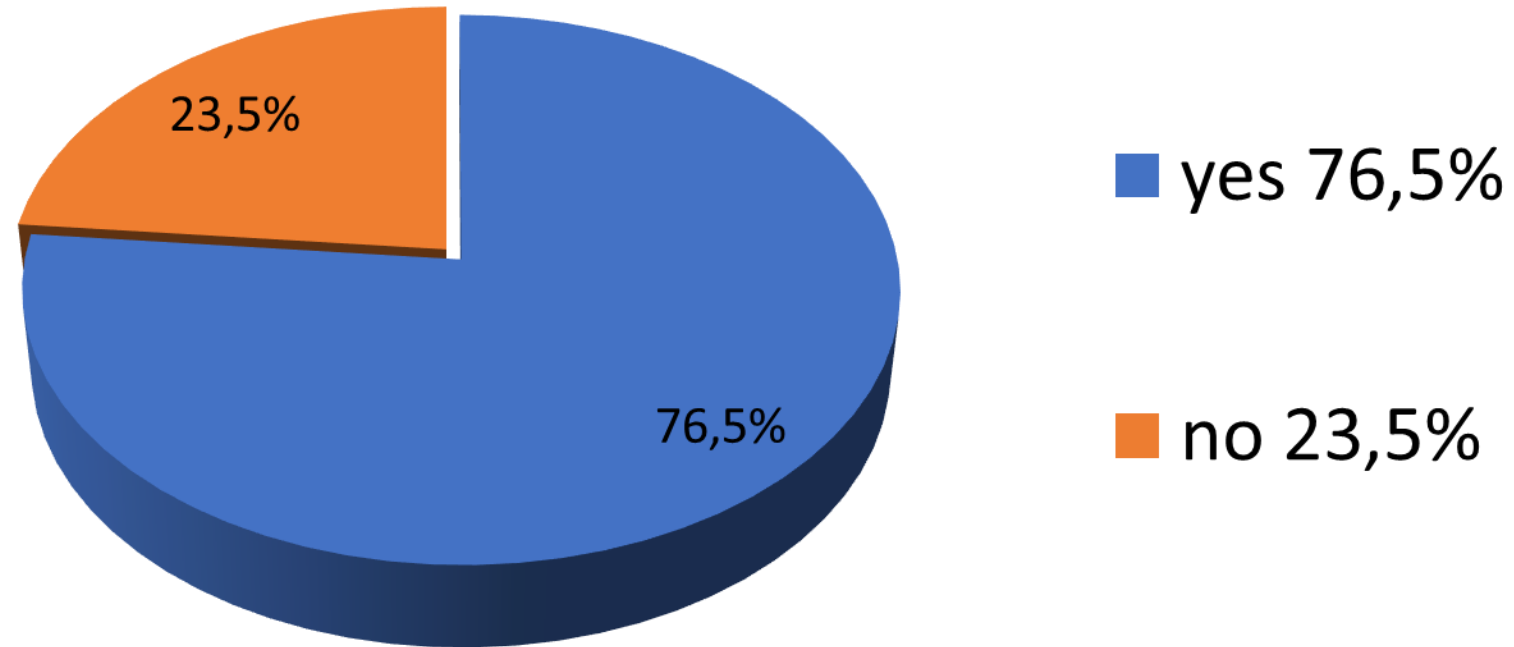
Because it helped me to be more convinient and be responsible for myself.

I've always thought education is important as I want to be a pilot so I've got to work very very hard

I have always thought that school is important so that I can do the job that I want to do

Education has always been important to me

Has your opinion about intergenerational learning changed after course?



Why?

Not answered (9)

We should more

Very useful to talk to different generations

I already knew that it is a very good thing to happen and that there should be a lot more intergenerational activities available to young and older people.

I've always been positive

Because I have always thought it was good that generations should mix and integrate

I was able to experience inter generational learning first hand.

It was refreshing to work with the young people would had time to help me with ICT. Whereas younger family members do not always make the time.

Cross-country analysis

In each case, ICT tools are used intuitively and most often in the most optimal way to achieve the purposes of their use. According to the results of ICT Guides project, ICT tools due to their functionality they are willingly used by young people and the elderly. Each of these age groups are interested in ICT using, because they realizes that the ability to use ICT tools is one of the key skills of contemporary times and their importance will increase in the future. However, in each of two age cohorts ICT tools play different role: in the case of pupils they are only the tools for achieving relevant, specific goals, but in the case of seniors ICT tools are the subject of learning in themselves. Paradoxically, the occurrence of this difference fosters the potential of intergenerational learning, because intrigue people and interest them about others.

How can ICT be an effective tool for improving the inclusive education for new arrivals in the EU?

- ICT tools are increasingly used in schools and the ability to use them is a key competence of youth. Research results are important for understanding pupils perspectives of ICT tools using but also for a slightly better understanding the conditions of their early school leaving.
- It turns out that while pupils are fluent in ICT, they are usually not prepared for independent and effective functioning in the information society (knowledge). This is evidenced by the fact that ICT is for them the tools of entertainment and are mainly used for pleasure or because of boredom. It means that immigrant pupils, despite their proficiency in using tools, have low technological maturity, which can be defined as a readiness for independent, effective and responsible use of information and communication technologies – also in an innovative way – and for formulating expectations for technology for its own, current and future needs. It determines the satisfactory and constructive functioning of the individual in the information society, and the lack of competence in this area poses a threat of social exclusion. Competences related to ICT are important both in the context of access to broadly understood education and functioning in the labour market, and are mentioned among the most important human competences of the 21st century, so-called key competences (Valentine, Marsh, Pattie 2005, pp. 5-7; A Report of the International ICT Literacy Panel, 2007, pp. 2-4).

How can ICT be an effective tool for improving the inclusive education for new arrivals in the EU? (cont.)

- Low technological maturity causes that ICT tools using plays the most important role in pupils' life and consume time that should be dedicated to learning.
- During the courses conducted in the project, young immigrants have learned that they are not only for entertainment, but also for education and development. ICT enable access to almost unlimited resources of knowledge and serve communication. Therefore, they are very useful during the first days, weeks and months of school education in the new country, new social environment and new challenges. Moreover, both age groups, using ICT have been breaking social and personal barriers and have been learning about the others. It turned out that most immigrant pupils are fluent in ICT, therefore this proficiency is their strength, which should be used by teachers in school.
- Integration ICT tools with school education of immigrants, gives them the possibility of demonstrating their competences, raises their self-esteem and motivates them to become more involved in learning process. Important is, that ICT tools should be only instruments or "teaching resources" for learning and development and not an object of learning. Developing of pupils' sense of competence in this area is the implementation of empowerment assumptions as well.

Thank you for your attention