



Digital Skills Development for 21st Century SEN Teachers



WP2. DIGITAL RESOURCES & LEARNING OUTCOMES FOR SEN TEACHERS NEED ANALYSIS REPORT

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ACRONYM	NAME OF THE ORGANIZATION	COUNTRY
FSR	Fundación Sorapán de Rieros	Spain
EURASIA	Avrasya Yenilikçi Toplum Derneği	Turkey
CSEID	Centrul Scolar pentru Educatie Incluziva Delfinul	Romania
APS	Akademia Pedagogiki Specjalnej im.Marii Grzegorzewskiej	Poland
VAEV	VAEV Research and Development Agency GmbH	Austria
ISHN	Instituto Secular Hogar de Nazaret	Spain

For more information of Digi-skills SEN project, visit:



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1. INTRODUCTION

1.1. About Digi-skills SEN project

Digi-Skills SEN is a 24-month cooperation partnership project in school education, implemented under the Erasmus Plus program and co-funded by the European Union. Digi-Skills SEN aims to provide tools to support the improvement of special education teachers' digital skills and competences. More specifically, through three main results:

R1: Digital resources and learning outcomes for SEN teachers

R2: Digi-Skills SEN online learning platform.

R3: Mobile application for educational and technical software.

1.2. About the need analysis

The need analysis was conducted in all partner countries (Spain, Austria, Turkey, Poland and Romania), through an online survey that aimed at providing an understanding of what special education teachers need in terms of ICT and open educational resources in their professional work.

The survey received 266 responses and was directed to project target groups, namely: SEN teachers, professionals, specialists and students, as well as psychological counsellors, school directors and representatives of organizations working with SEN.

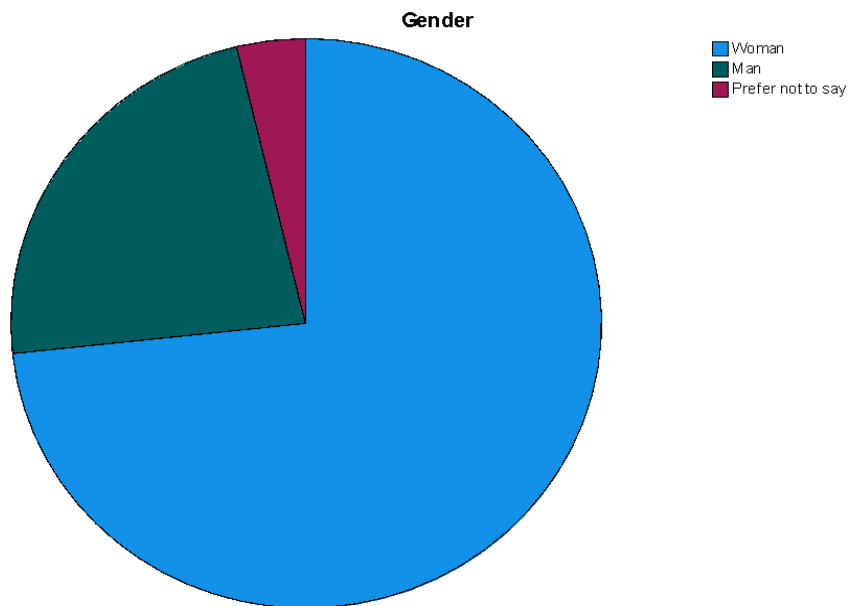
The feedback provided by respondents allowed the consortium to have a clear understanding on their profile regarding digital skills, experience and use of ICTs at work, training preferences, ICT and digital topics with the most interest, etc. This feedback provided highly relevant findings to finetune the learning curriculum and training topics, as well as to adapt the next project results.



2. Characteristics of the sample

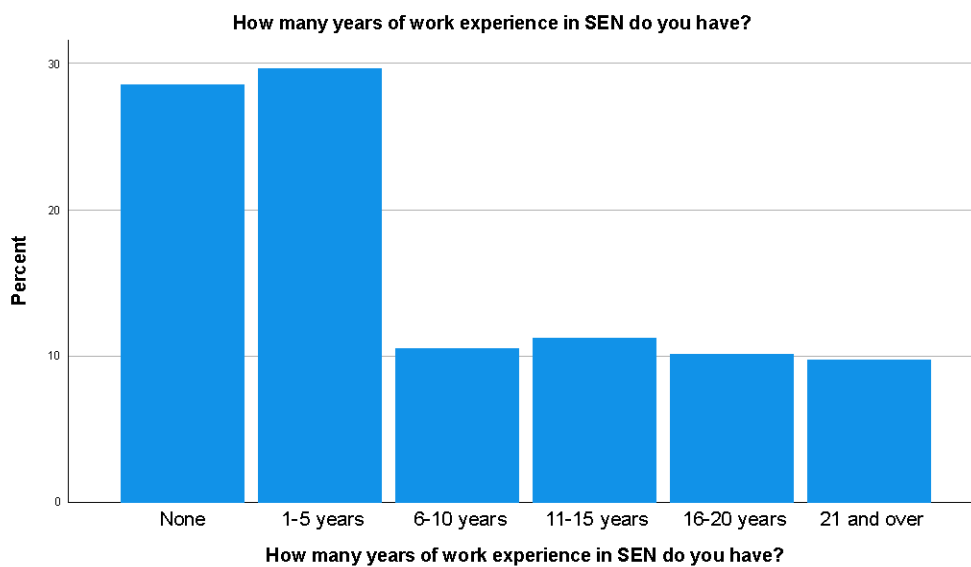
2.1. Gender

	N	%
Woman	195	73.3
Man	61	22.9
Prefer not to say	10	3.8
Total	266	100,0



2.2. Experience of working in SEN

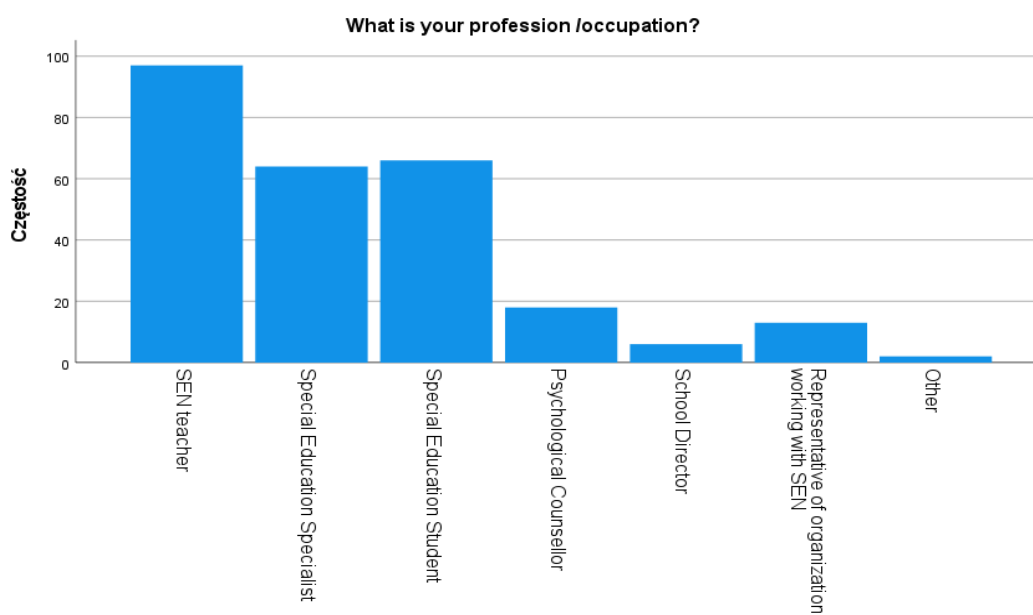
	N	%
None	76	28.6
1-5 years	79	29.7
6-10 years	28	10.5
11-15 years	30	11.3
16-20 years	27	10.2
21 and over	26	9.8
Total	266	100.0



2.3. Profession /occupation

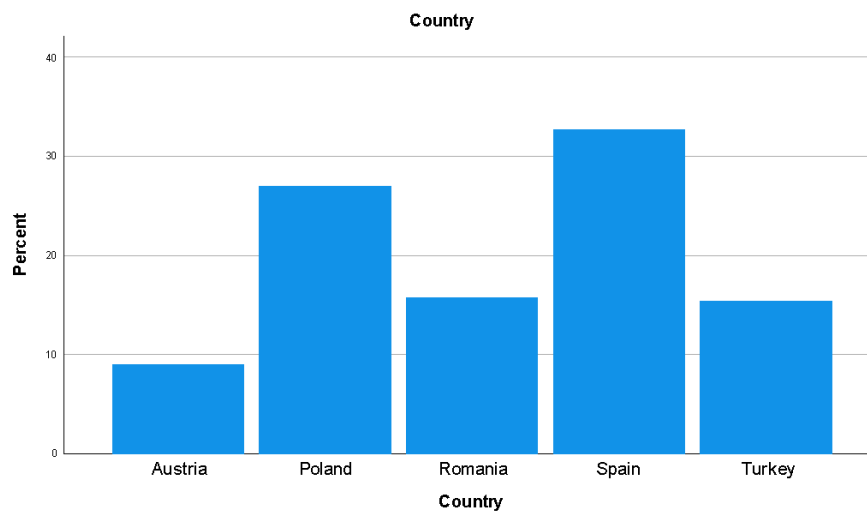
	N	%
SEN teacher	97	36.5
Special Education Specialist	64	24.1
Special Education Student	66	24.8
Psychological Counsellor	18	6.8
School Director	6	2.3
Representative of organization working with SEN	13	4.9
Other	2	0.8

Other profession /occupation	
	N
Researcher	1
Social worker	1



2.4. Country

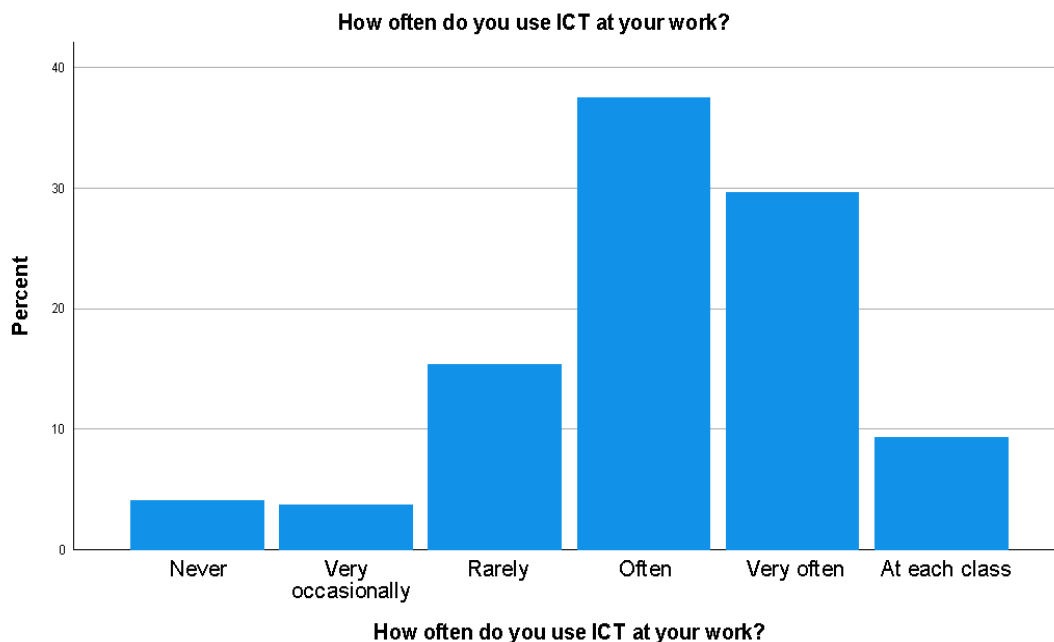
	N	%
Austria	24	9.0
Poland	72	27.1
Romania	42	15.8
Spain	87	32.7
Turkey	41	15.4



3. Experience of using ICT

3.1. How often do you use ICT at your work?

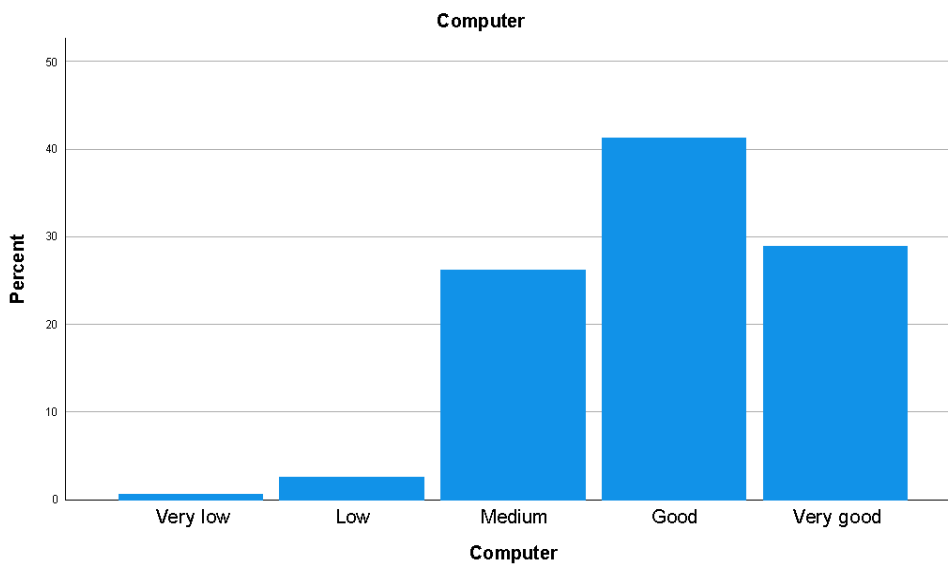
How often do you use ICT at your work?		
	N	%
Never	11	4.1
Very occasionally	10	3.8
Rarely	41	15.4
Often	100	37.6
Very often	79	29.7
At each class	25	9.4



3.2. Degree of knowledge and skills in the use of different digital devices

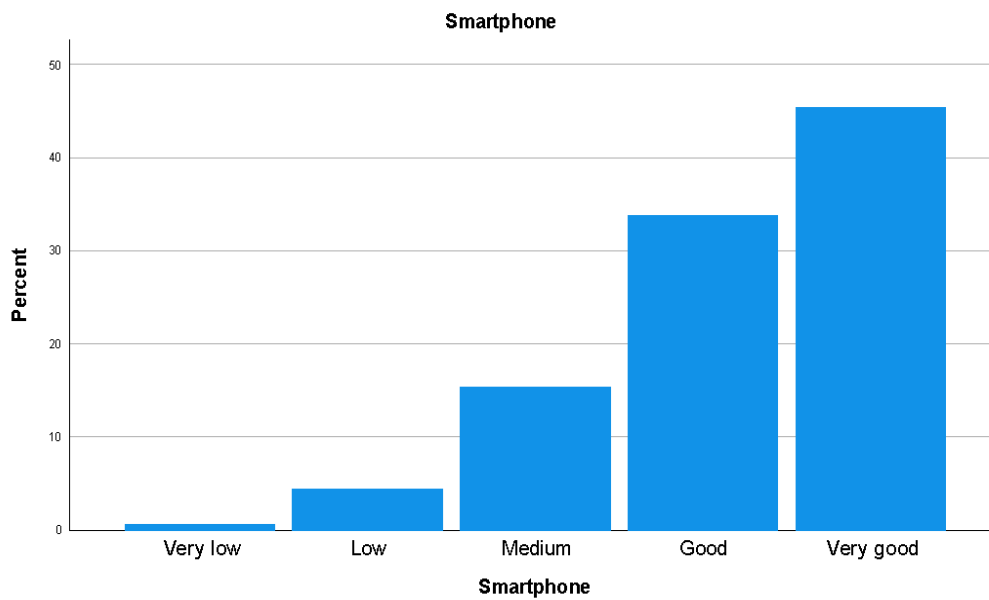
3.2.1. Computer

Computer		
	N	%
Very low	2	0.8
Low	7	2.6
Medium	70	26.3
Good	110	41.4
Very good	77	28.9



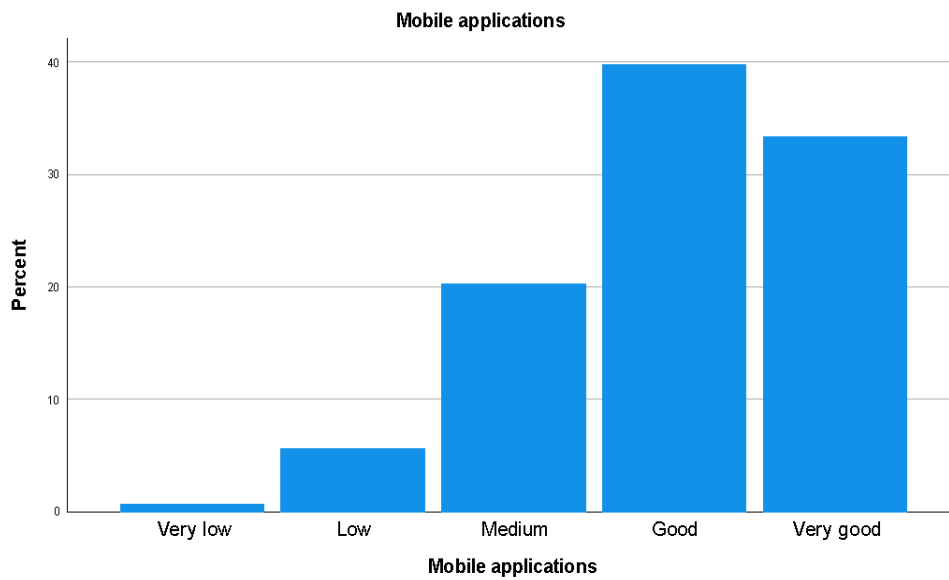
3.2.2. Smartphone

Smartphone		
	N	%
Very low	2	0.8
Low	12	4.5
Medium	41	15.4
Good	90	33.8
Very good	121	45.5



3.2.3. Mobile applications

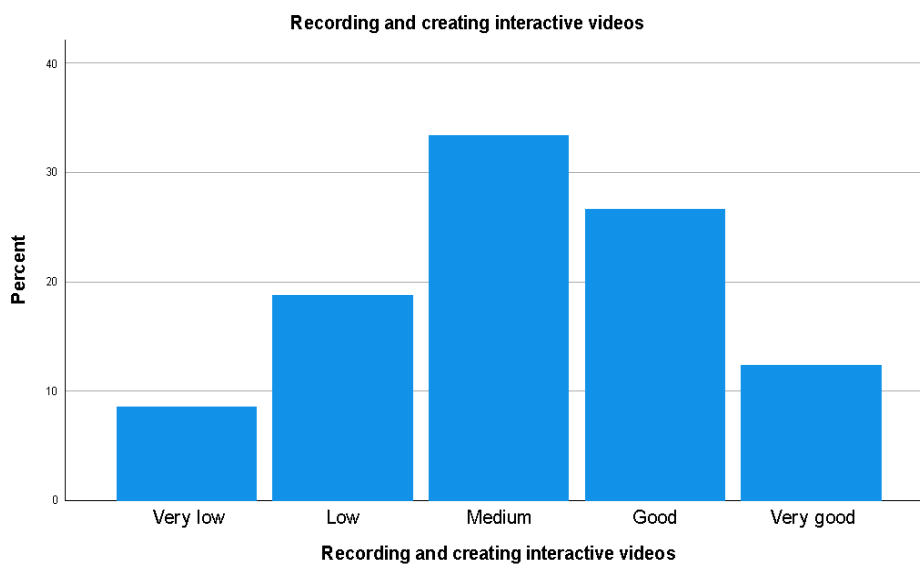
Mobile applications		
	N	%
Very low	2	0.8
Low	15	5.6
Medium	54	20.3
Good	106	39.8
Very good	89	33.5



3.3. Degree of knowledge and skills in digital teaching resources and tools

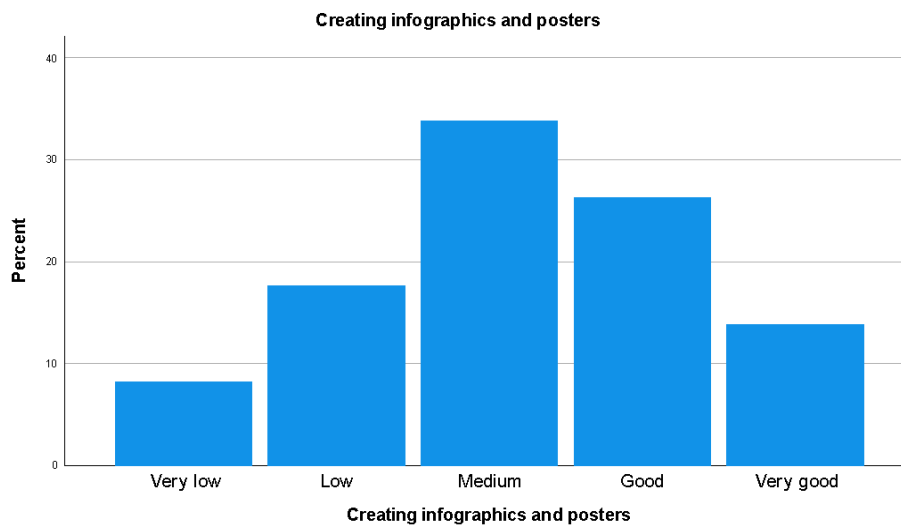
3.3.1. Recording and creating interactive videos

Recording and creating interactive videos		
	N	%
Very low	23	8.6
Low	50	18.8
Medium	89	33.5
Good	71	26.7
Very good	33	12.4



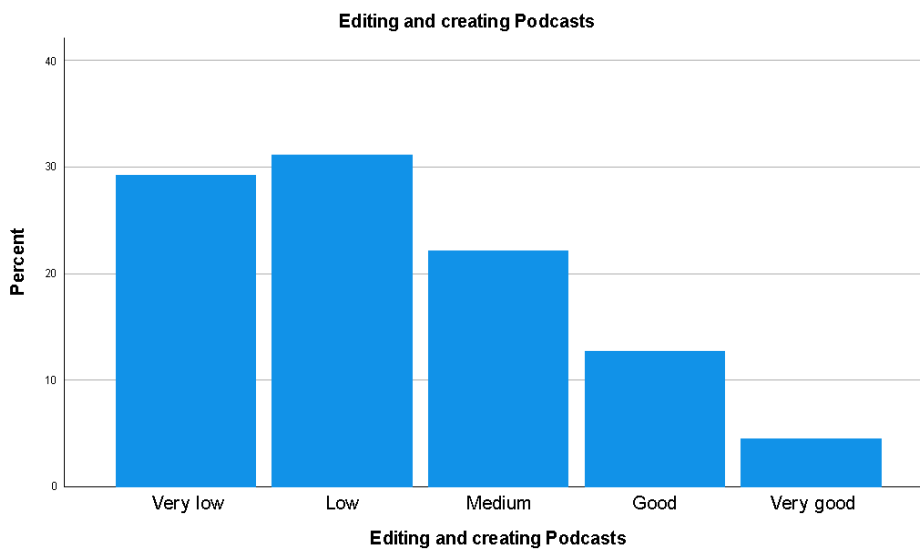
3.3.2. Creating infographics and posters

Creating infographics and posters		
	N	%
Very low	22	8.3
Low	47	17.7
Medium	90	33.8
Good	70	26.3
Very good	37	13.9



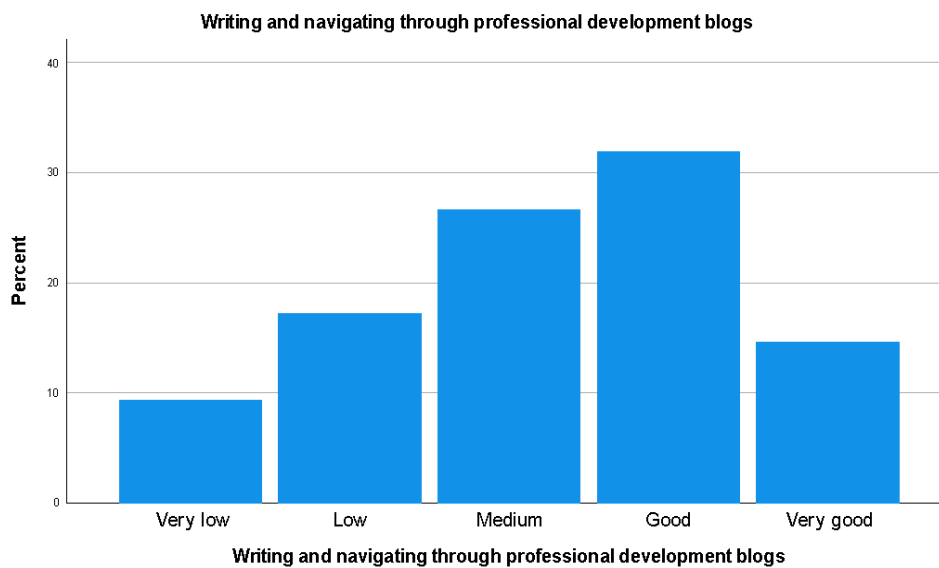
3.3.3.Editing and creating Podcasts

Editing and creating Podcasts		
	N	%
Very low	78	29.3
Low	83	31.2
Medium	59	22.2
Good	34	12.8
Very good	12	4.5



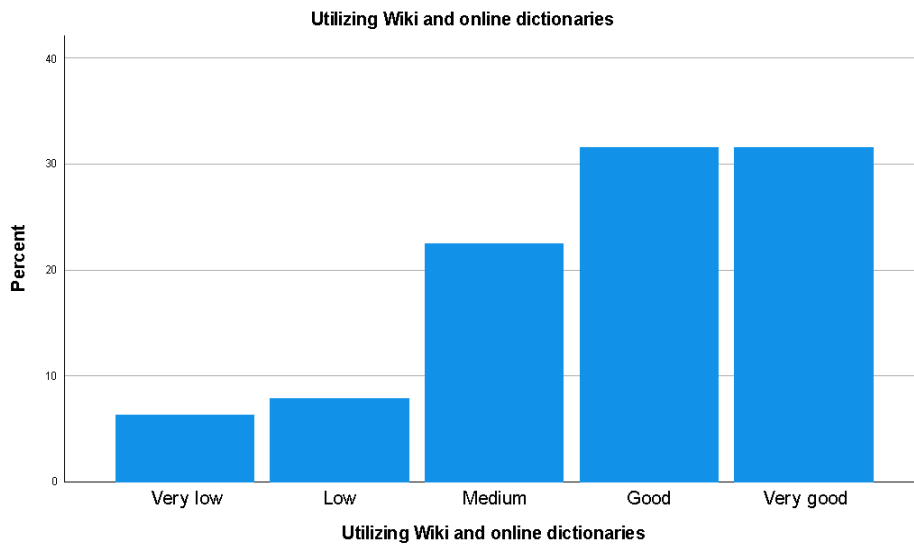
3.3.4. Writing and navigating through professional development blogs

Writing and navigating through professional development blogs		
	N	%
Very low	25	9.4
Low	46	17.3
Medium	71	26.7
Good	85	32.0
Very good	39	14.7



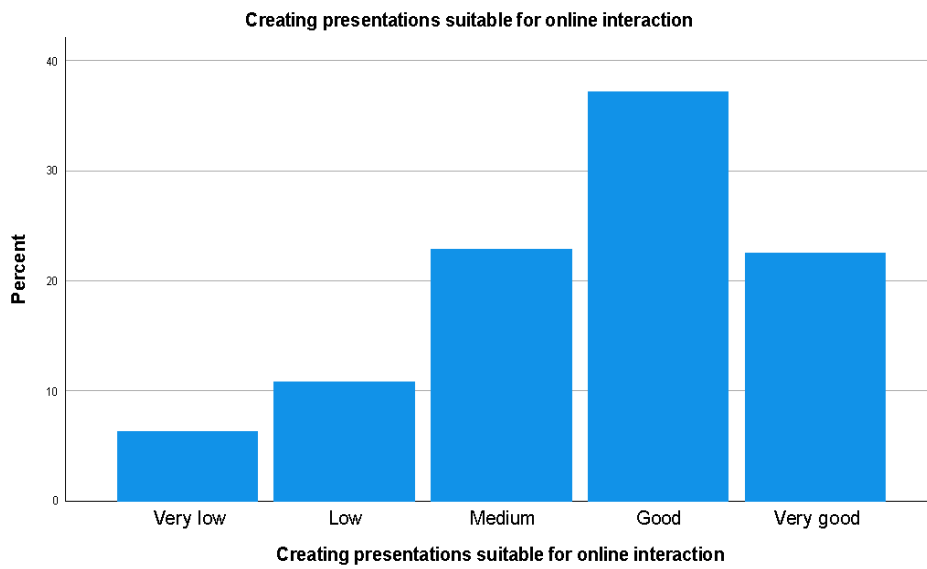
3.3.5. Utilizing Wiki and online dictionaries

Utilizing Wiki and online dictionaries		
	N	%
Very low	17	6.4
Low	21	7.9
Medium	60	22.6
Good	84	31.6
Very good	84	31.6



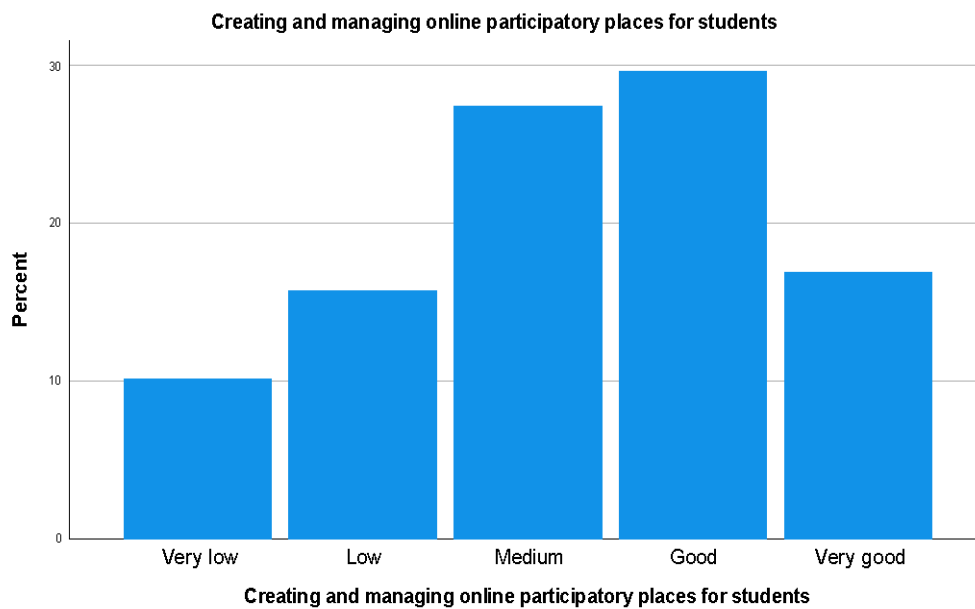
3.3.6. Creating presentations suitable for online interaction

Creating presentations suitable for online interaction		
	N	%
Very low	17	6.4
Low	29	10.9
Medium	61	22.9
Good	99	37.2
Very good	60	22.6



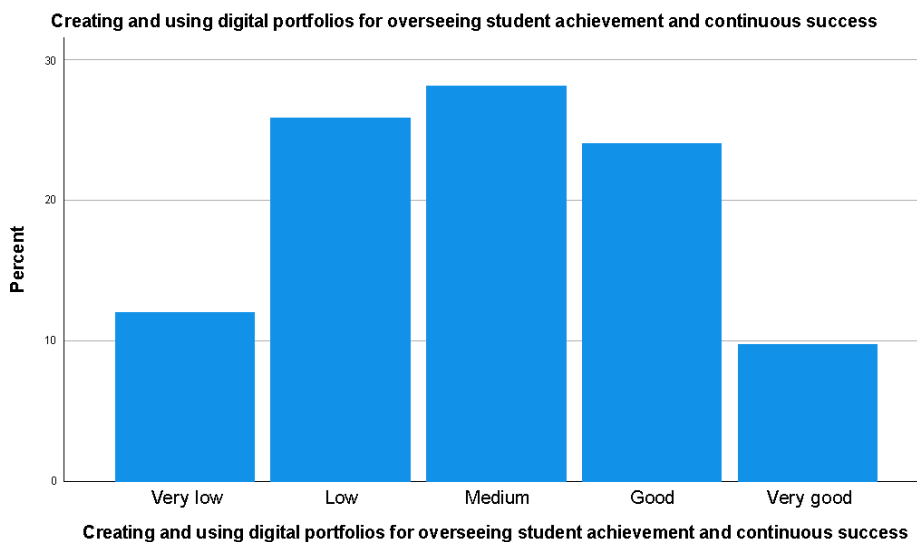
3.3.7. Creating and managing online participatory places for students

Creating and managing online participatory places for students		
	N	%
Very low	27	10.2
Low	42	15.8
Medium	73	27.4
Good	79	29.7
Very good	45	16.9



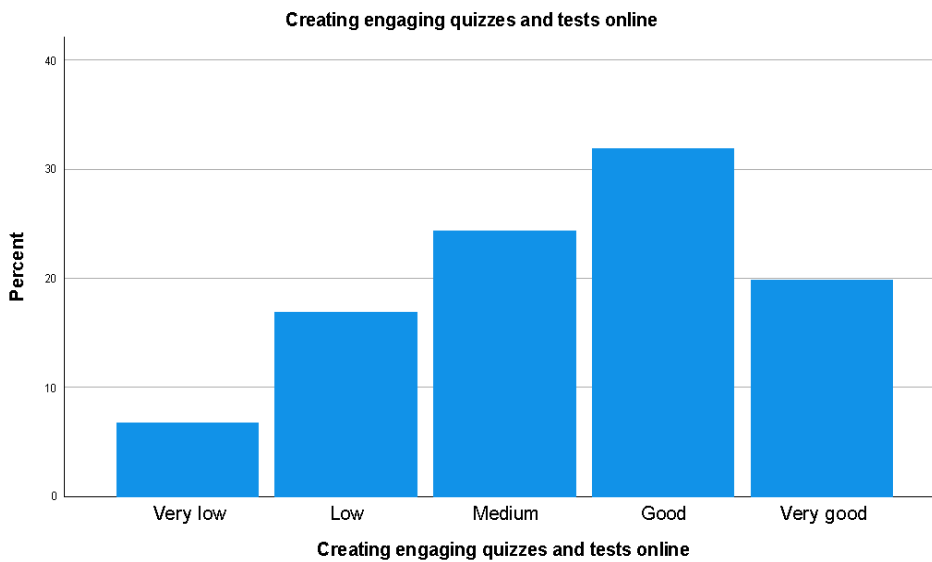
3.3.8. Creating and using digital portfolios for overseeing student achievement and continuous success

Creating and using digital portfolios for overseeing student achievement and continuous success		
	N	%
Very low	32	12.0
Low	69	25.9
Medium	75	28.2
Good	64	24.1
Very good	26	9.8



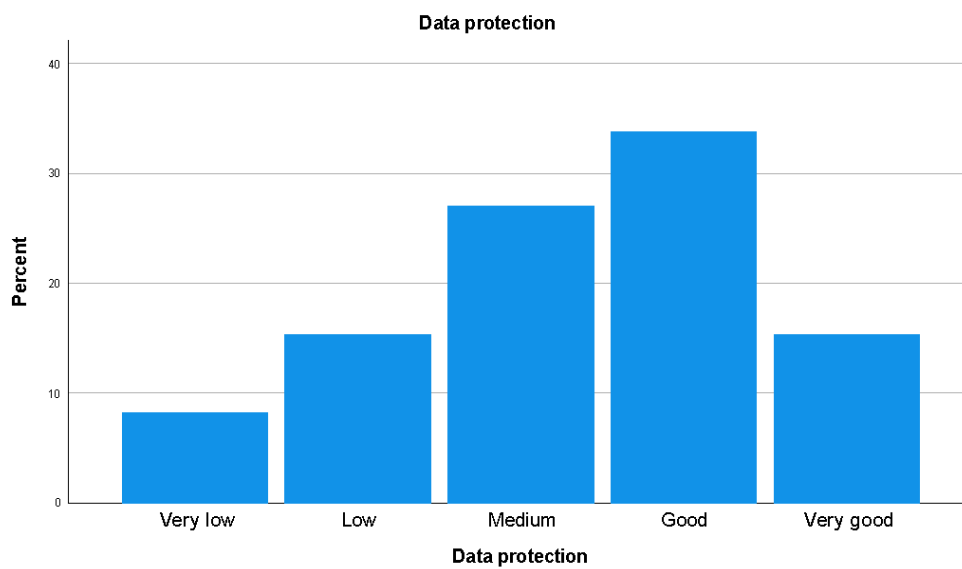
3.3.9. Creating engaging quizzes and tests online

Creating engaging quizzes and tests online		
	N	%
Very low	18	6.8
Low	45	16.9
Medium	65	24.4
Good	85	32.0
Very good	53	19.9



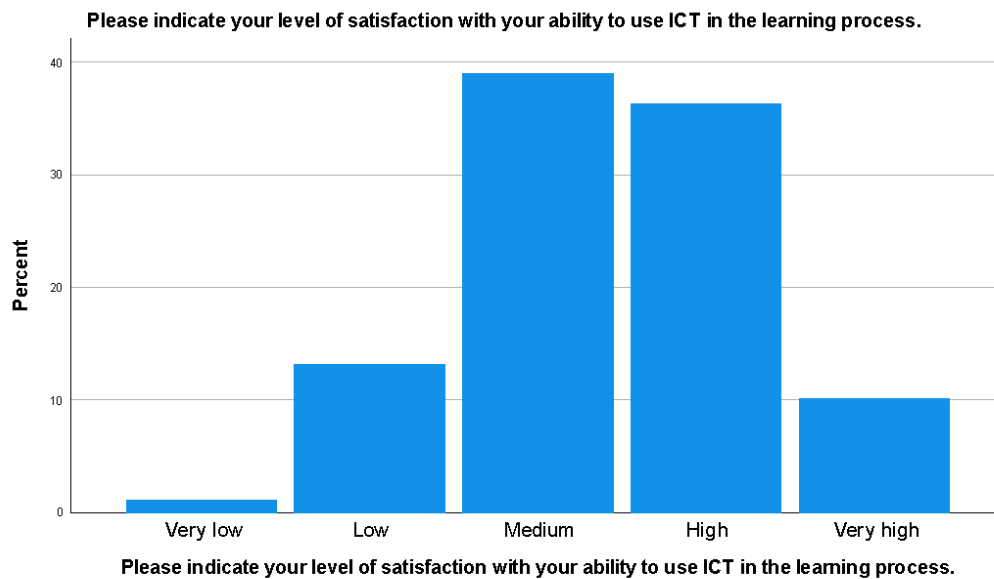
3.3.10. Data protection

Data protection		
	N	%
Very low	22	8.3
Low	41	15.4
Medium	72	27.1
Good	90	33.8
Very good	41	15.4



3.4. General satisfaction with own's ability to use ICT in the learning process

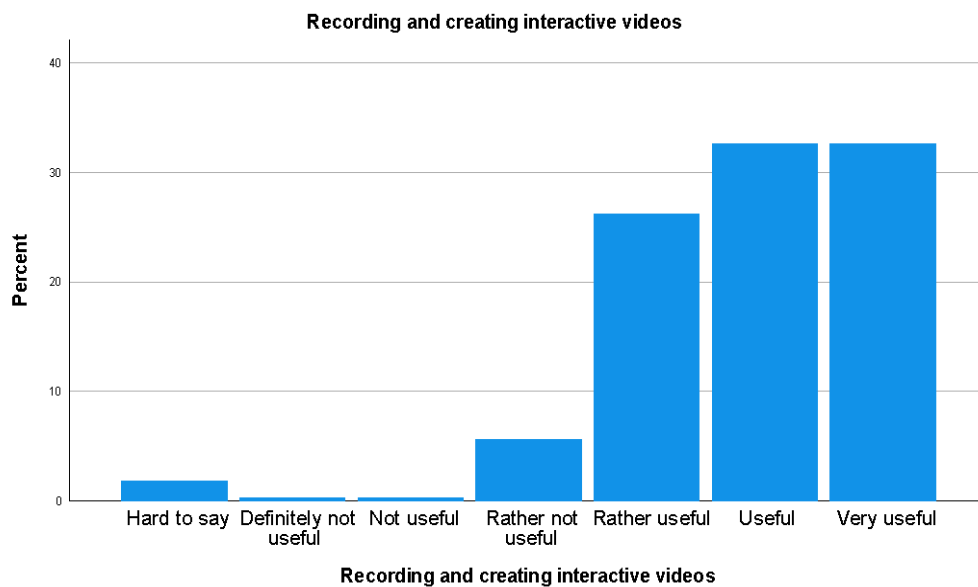
Please indicate your level of satisfaction with your ability to use ICT in the learning process.		N	%
Very low		3	1.1
Low		35	13.2
Medium		103	38.7
High		96	36.1
Very high		27	10.2
Missing	System	2	0.8



4. Usefulness of training topics

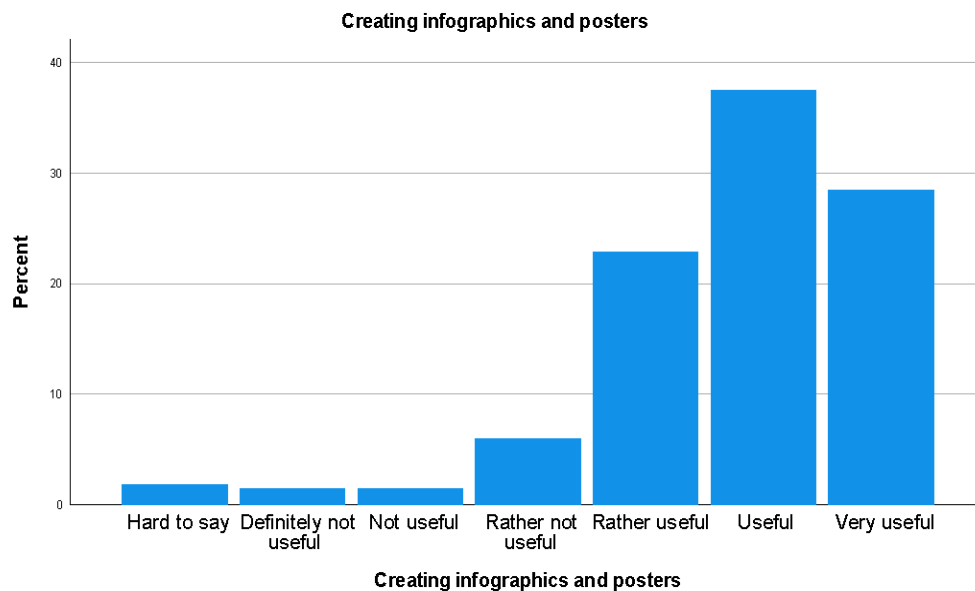
4.1. Recording and creating interactive videos

Recording and creating interactive videos		
	N	%
Hard to say	5	1.9
Definitely not useful	1	0.4
Not useful	1	0.4
Rather not useful	15	5.6
Rather useful	70	26.3
Useful	87	32.7
Very useful	87	32.7



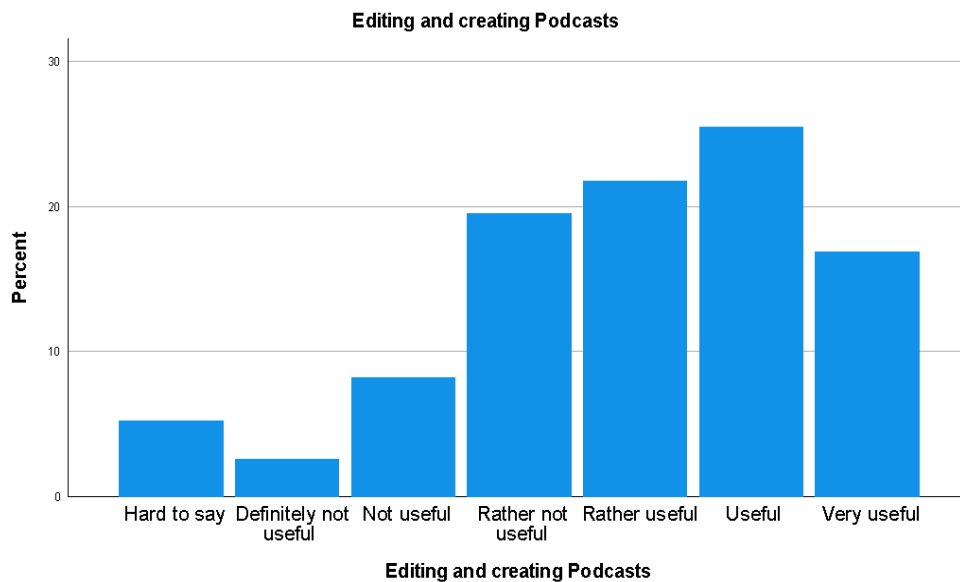
4.2. Creating infographics and posters

Creating infographics and posters		
	N	%
Hard to say	5	1.9
Definitely not useful	4	1.5
Not useful	4	1.5
Rather not useful	16	6.0
Rather useful	61	22.9
Useful	100	37.6
Very useful	76	28.6



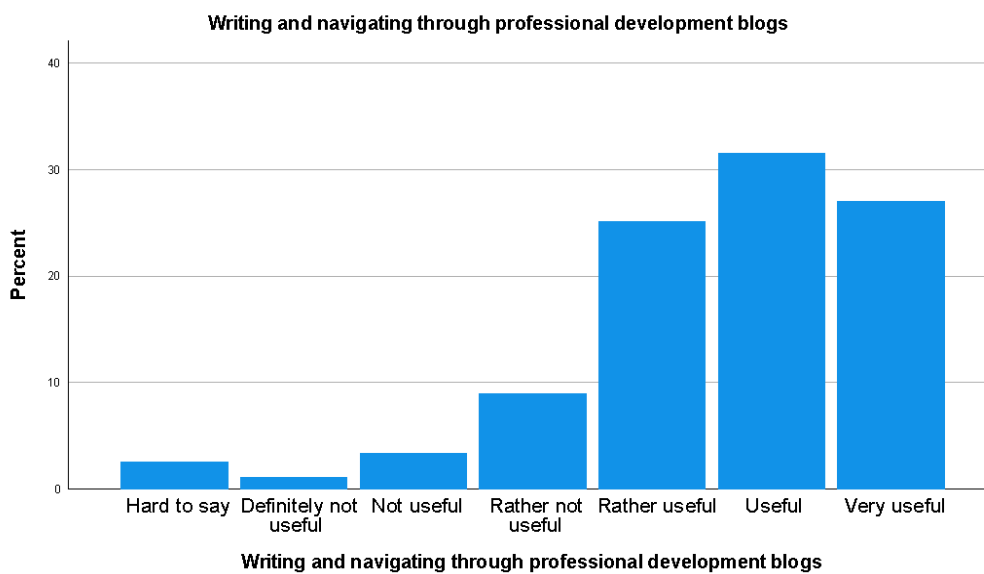
4.3. Editing and creating Podcasts

Editing and creating Podcasts		
	N	%
Hard to say	14	5.3
Definitely not useful	7	2.6
Not useful	22	8.3
Rather not useful	52	19.5
Rather useful	58	21.8
Useful	68	25.6
Very useful	45	16.9



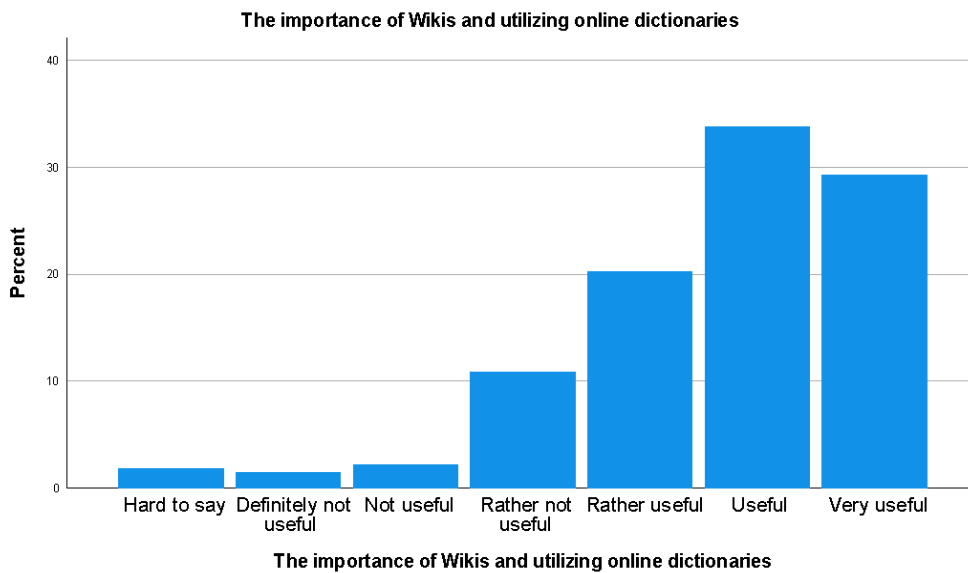
4.4. Writing and navigating through professional development blogs

Writing and navigating through professional development blogs		
	N	%
Hard to say	7	2.6
Definitely not useful	3	1.1
Not useful	9	3.4
Rather not useful	24	9.0
Rather useful	67	25.2
Useful	84	31.6
Very useful	72	27.1



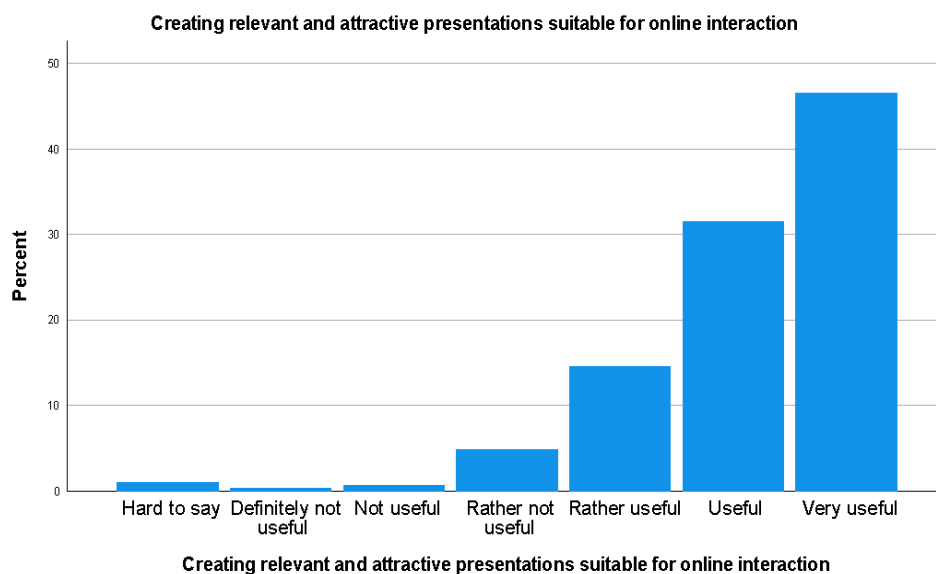
4.5. The importance of Wikis and utilizing online dictionaries

The importance of Wikis and utilizing online dictionaries		
	N	%
Hard to say	5	1.9
Definitely not useful	4	1.5
Not useful	6	2.3
Rather not useful	29	10.9
Rather useful	54	20.3
Useful	90	33.8
Very useful	78	29.3



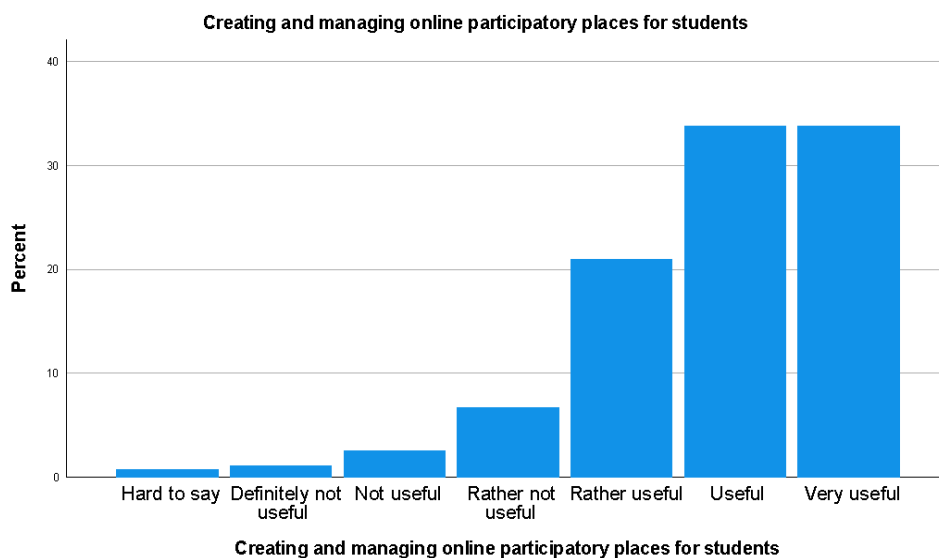
4.6. Creating relevant and attractive presentations suitable for online interaction

Creating relevant and attractive presentations suitable for online interaction		
	N	%
Hard to say	3	1.1
Definitely not useful	1	0.4
Not useful	2	0.8
Rather not useful	13	4.9
Rather useful	39	14.7
Useful	84	31.6
Very useful	124	46.6



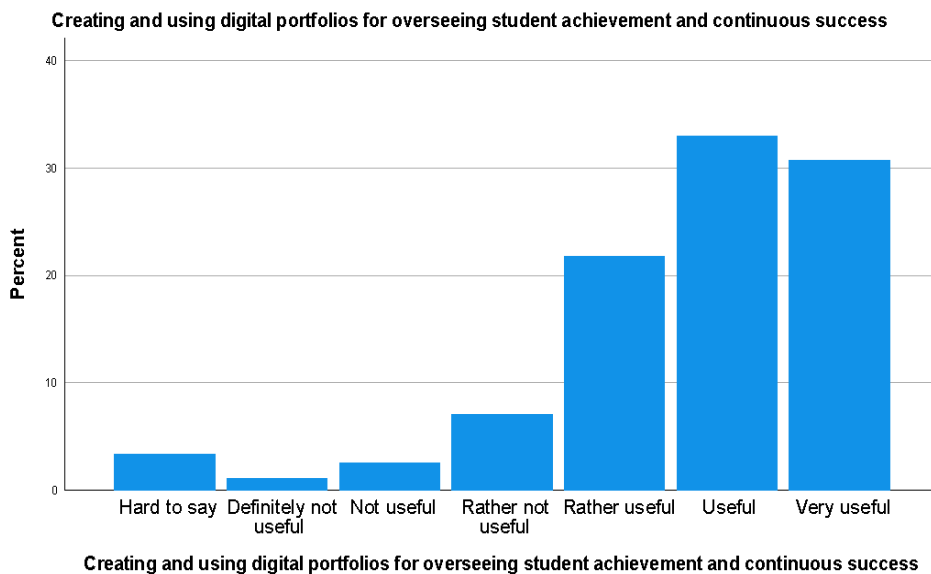
4.7. Creating and managing online participatory places for students

Creating and managing online participatory places for students		
	N	%
Hard to say	2	0.8
Definitely not useful	3	1.1
Not useful	7	2.6
Rather not useful	18	6.8
Rather useful	56	21.1
Useful	90	33.8
Very useful	90	33.8



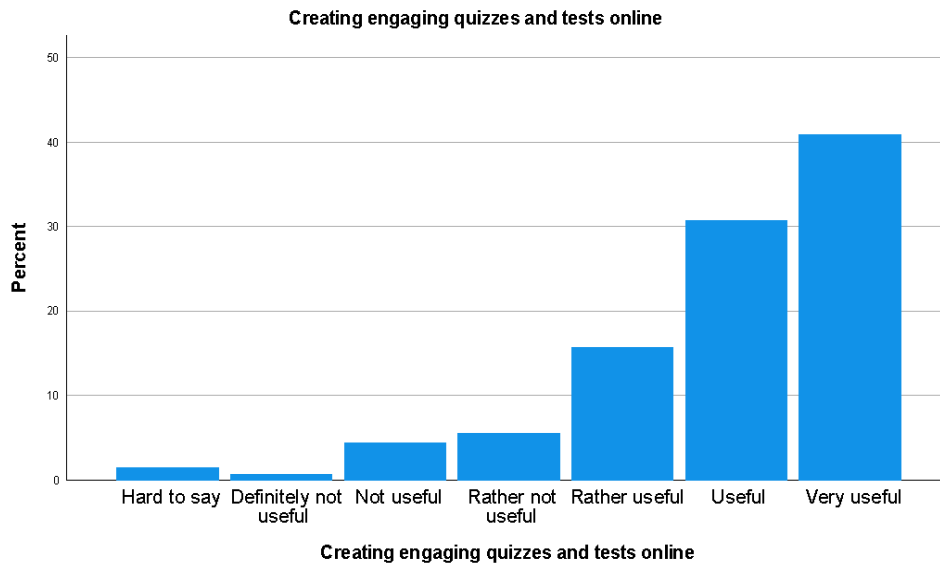
4.8. Creating and using digital portfolios for overseeing student achievement and continuous success

Creating and using digital portfolios for overseeing student achievement and continuous success		
	N	%
Hard to say	9	3.4
Definitely not useful	3	1.1
Not useful	7	2.6
Rather not useful	19	7.1
Rather useful	58	21.8
Useful	88	33.1
Very useful	82	30.8



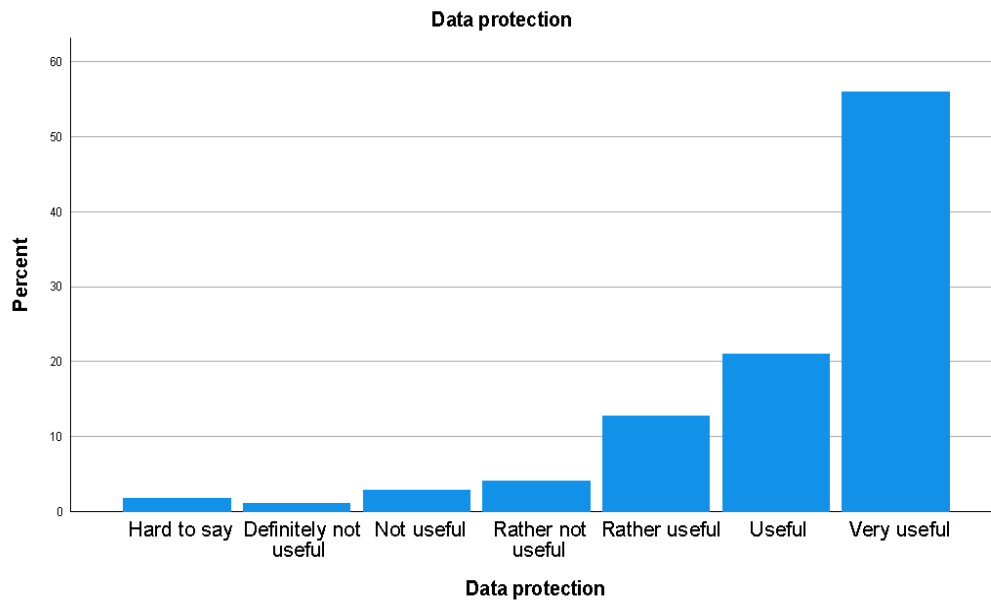
4.9. Creating engaging quizzes and tests online

Creating engaging quizzes and tests online		
	N	%
Hard to say	4	1.5
Definitely not useful	2	0.8
Not useful	12	4.5
Rather not useful	15	5.6
Rather useful	42	15.8
Useful	82	30.8
Very useful	109	41.0



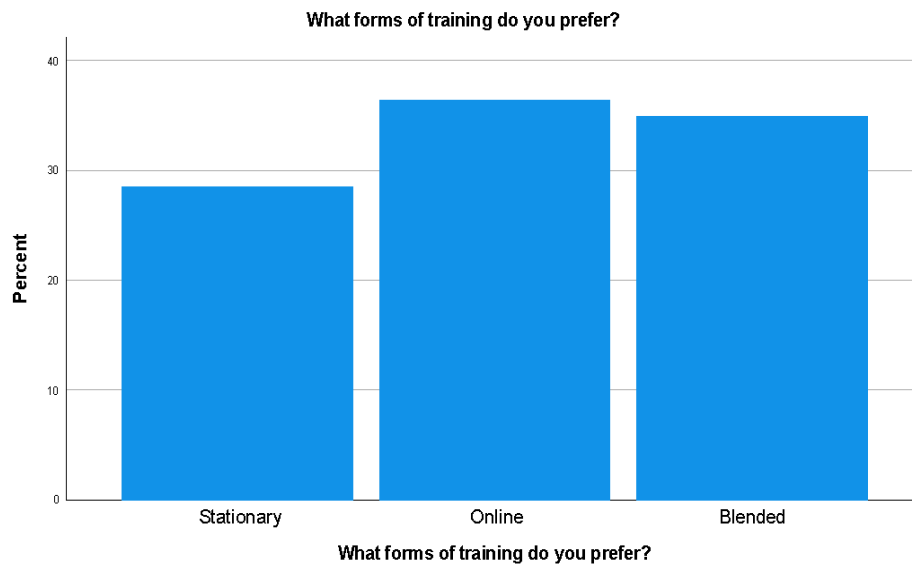
4.10.Data protection

Data protection		
	N	%
Hard to say	5	1.9
Definitely not useful	3	1.1
Not useful	8	3.0
Rather not useful	11	4.1
Rather useful	34	12.8
Useful	56	21.1
Very useful	149	56.0



5. Training preferences

What forms of training do you prefer?		
	N	%
Face to face	76	28.6
Online	97	36.5
Blended	93	35.0



6. Other ICT topics of interest

When asked for other ICT topics of interest, respondents list a variety of topics, tools and other resources.

The tools mentioned are:

- Canva
- Genially
- Power point
- Kahoot
- Popplet
- Clasdojo
- Google tools: classroom, drive, slideshares, etc
- Microsoft 365 tools
- Typeform
- ClassOnLive
- Wikispaces
- Powtoon
- Youtube
- Edilim
- Prezi
- Mentimeter
- Photoshop
- Lumosity (cognitive training)
- Dropbox
- Trello
- Slack
- Quizzy
- Social networks: Facebook and Instagram
- Livresq
- Linguee

The topics and resources raising more interest among respondents are three:

- **Gamification of learning process:** games, apps, animation, quizzes, rewards systems, etc.
- **Online interactive learning:** apps, online resources, materials, interactive exercises
- **Collaborative online spaces applied to education:** distribution lists, collaborative groups among professionals and families, etc.



Other topics of interest are:

- Artificial Intelligence applied to education
- Virtual reality applied to education
- Mobile apps
- 3D printing
- Alternative communication systems with ICTs
- Web design and graphical design
- Apps to communicate with families of students
- Blogs and research for existing materials
- Creating handbooks for SEN students; apps for hearing and visual impaired pupils
- The use of software for the communication of non-verbal students
- Creating programs and applications adapted to children with disabilities
- Creating specialized podcast specified to the level of special education need
- Self motivational podcast for young students
- Creation of conceptual maps
- Creation of presentations
- Creation of educational applications
- Creation of databases for the administration of students' personal data.
- Creation of goals and tests to assess the pupil
- Creation of specific tests to assess and monitor the level of the professionals
- Creation of platforms to improve teachers' skills on the use of ICTs
- Data bases and worksheets
- Cutting of online and editing of videos
- Making creative photos and editing them professionally
- Data protection, hacking and cyber safety
- Software development
- Digital tools for the development of emotional intelligence, sociability and communication
- Digital board
- Alternative communication systems
- Digital pills
- Assessment sheets online to be able to see the progress of the students
- ICTs applied to home living
- ICTs for people with extensive educational needs
- Inserting statistics
- The Picture Exchange Communication System (PECS)
- Voice virtual assistants
- Tools for video call and online meetings



7. Conclusions

After a deep analysis of the feedback obtained, all partners decided to update and finetune the list of topics used to develop the learning curriculum and training topics of Digi-skills SEN project, in order to better accommodate target groups needs and topics of interest.

The preliminary list of topics was modified and improved as follows:

INITIAL LIST OF TOPICS	FINAL LISTS TOPICS	COMMENTS
1. Recording and creating interactive videos	1. Recording and creating interactive videos	no changes
2. Creating infographics and posters	2. Creating infographics and posters	no changes
3. Editing and creating Podcasts	3. Editing and creating Podcasts	no changes
4. Writing and navigating through professional development blogs	4. Professional Development, searching and leveraging on available online SEN resources	As the initial topic was rated as less useful, it was broadened in the way it aims to show how to search and take advantage of all kind of educational resources that are already available online.
5. The importance of Wikis and utilizing online dictionaries	5. Education & information: Creating websites, blogs and Wikis for educational purposes	As the initial topic was rated as less useful, online dictionaries were removed and website creation was added. The final topic will now be focused on training users into the use of free, user-friendly platforms, CC rights will be treated in more detail in this topic as well.
6. Creating relevant and attractive presentations suitable for online interaction	6. Creating relevant and attractive presentations suitable for online interaction	no changes
7. Creating and managing online participatory places for students	7. Creating and managing online communication and participatory places for students	This topic had a minor change to include tools for online communication



INITIAL LIST OF TOPICS	FINAL LISTS TOPICS	COMMENTS
8. Creating and using digital portfolios for overseeing student achievement and continuous success	8. Creating and using digital portfolios for overseeing student achievement and continuous success	no changes
9. Creating engaging quizzes and tests online	9. Gamification of learning. Creating interactive activities, engaging quizzes and tests online	This topic was broadened with gamification and interactive activities.
10. Data protection	10. Data protection and Cyber Safety	Cyber safety was proposed only once, but it fits very well with data protection
	11. Digital tools to collectively track and support individual needs	New topic

