

National report about the requirements of disabled students in higher education: Latvia

Data analysis and results

The survey of the project SSSD-HE second phase was conducted on June 2-30, 2021. 69 participants (N=69) took part in the study, 69 completed electronic questionnaires were received. The obtained data were analyzed in SPSS version 26, using descriptive statistics (*Frequencies*) and inferential statistics tests (*Mann-Whitney Test*). The internal coherence of the survey was determined by performing a Cronbach's alpha measurement, obtaining the result $\alpha = 0.962$, which corresponds to a good internal coherence index (Table 1 and 2).

Table 1

Cronbach's Alpha	N of Items
.962	19

Table 2

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Visual perception	33.17	370.322	.798	.960
Auditory perception	33.30	373.038	.832	.959
Reading comprehension	33.29	371.944	.874	.959
Comprehension of written text	33.28	369.702	.906	.958
Written expression	33.23	368.416	.895	.958
Verbal communication	33.22	366.173	.895	.958
Emotional resilience	32.99	360.544	.869	.959
Persistence	33.16	363.224	.903	.958
Mental stability	33.13	361.086	.886	.958
Physical stability	33.39	369.506	.893	.958
Mobility	33.33	369.255	.895	.958

Room costumization	33.51	374.371	.857	.959
Have information about AT	32.51	407.195	.309	.965
Would like to use AT	32.88	395.633	.503	.963
Use AT	33.16	394.401	.558	.963
Need additonal AT	33.26	395.490	.575	.962
Need additional skills	33.04	399.866	.449	.964
Need additional support	32.87	393.703	.675	.961
Which form	33.54	400.576	.371	.965

To determine the distribution of the data, the *Kolmogorov-Smirnov Test* was performed, the results of which (Significance = 0.000) show that the obtained data correspond to the non-parametric distribution (Significance ≤ 0.05) (the SPSS table is too large to export in Word document).

Demographic data analysis

The age of the study participants was from 16 to 50 years. 2 (2,9 %) subjects were aged 16-19, 22 (31,9 %) were aged 22-29, 24 (34,8 %) were aged 30-39, 16 (23,2 %) were aged 40-49 and 5 (7,2 %) were aged 50 (Figure 1).

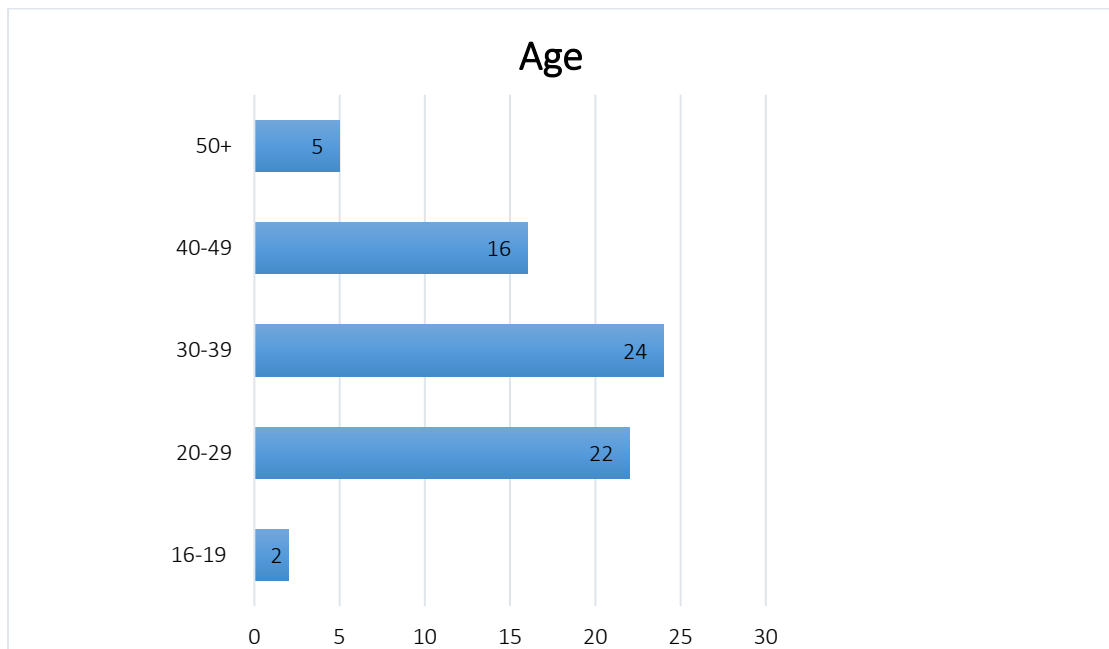


Figure 1. Age

68 of the study participants were female, and 1 was a male (Figure 2).

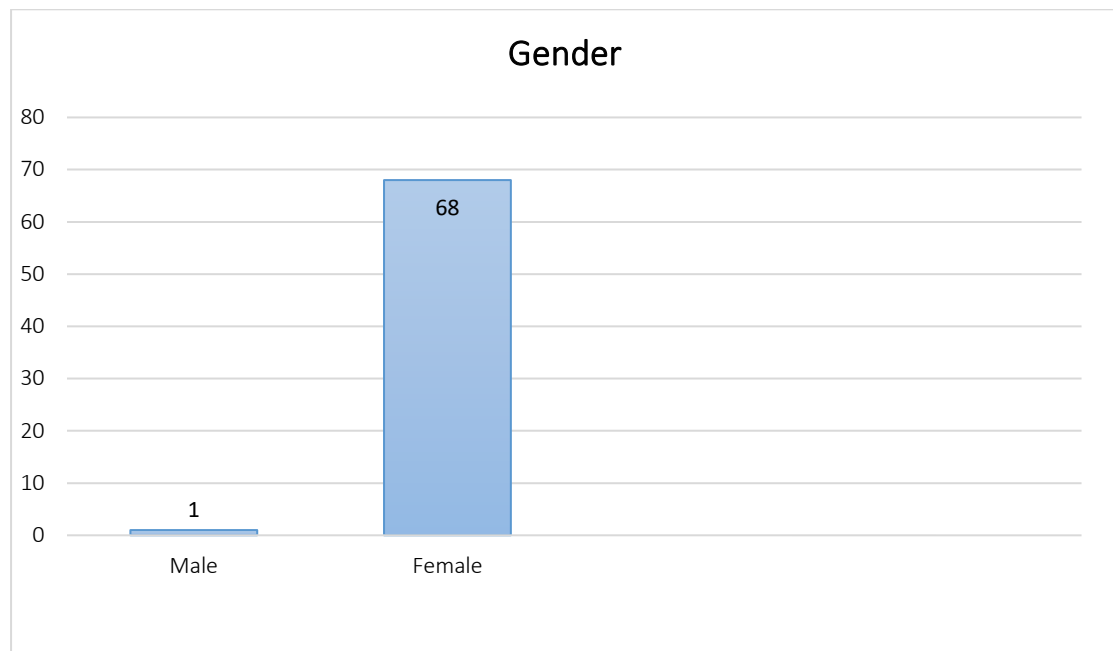


Figure 2. Gender

The participants of the study represent all levels of education offered in the survey, except primary education. 19 (27.5%) study participants indicated secondary education as the highest level of education, 6 (8.7%) – secondary vocational education, 15 (21.7%) – incomplete tertiary education, but 29 (42%) – tertiary education (Figure 3).

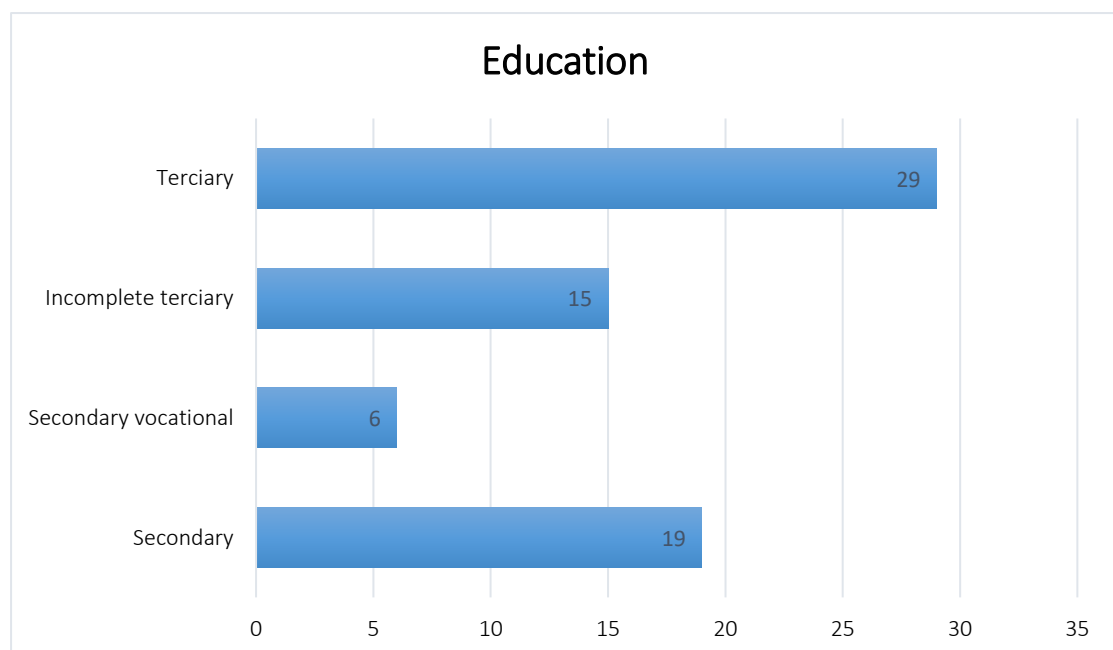


Figure 3. Education

Special needs of students

According to the obtained data, 20 (29 %) ($n_1 = 20$) of the surveyed students have indicated that they do not need support in the study process by choosing the answer “not at all”, but 49 (71 %) ($n_2 = 49$) students have indicated the need for support by choosing the answer “a little”, “some”, “a lot”, “very much ” (Figure 4).

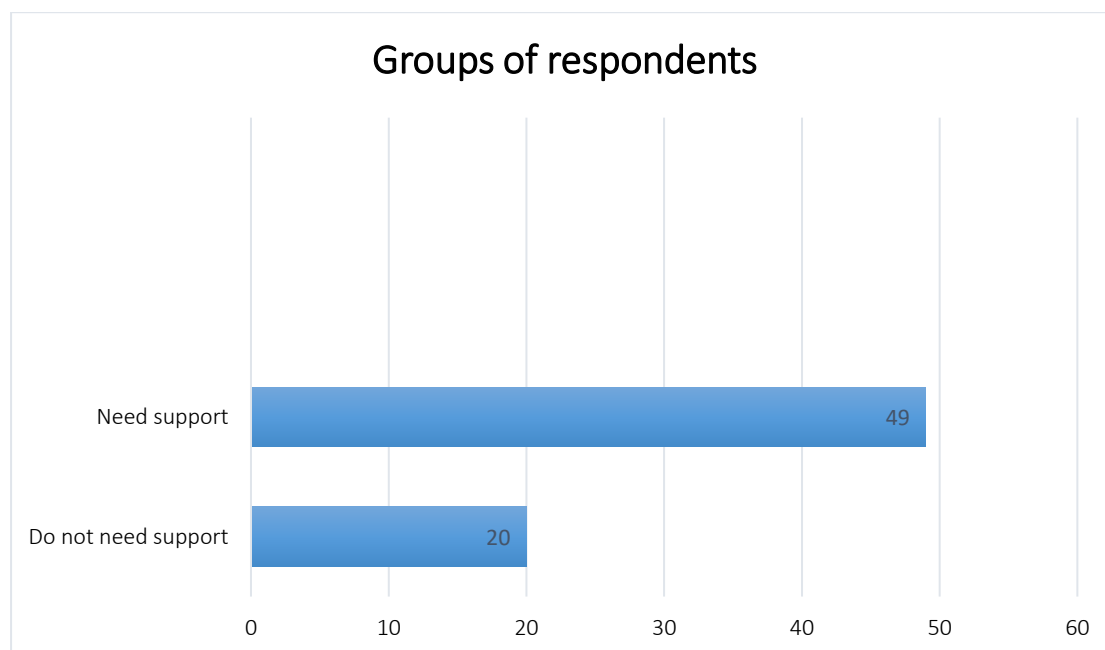


Figure 4. Groups of respondents

According to the answers provided by the respondents ($n_2 = 49$) who need the help during the study process (Table 3) to the question about the need to receive support (1) for visual perception, most respondents - 13 (26,5%) have indicated the answer “some”, 4 (8,2%) – the answer “very much”, but 12 (24,5%) – the answer “not at all”, (2) for auditory perception most respondents – 17 (34,7%) have indicated answer “a little”, 3 (6,1%) – the answer “very much”, but 11(22,4%) – “not at all”, (3) for reading comprehension most respondents - 19 (38,8%) have indicated the answer “a little”, 2 (4,1%) – the answer “very much”, but 9 (18,4%) – the answer “not at all”, (4) for comprehension of written text most respondents - 19 (38,8%) have indicated the answer “a little”, 2 (4,1%) – the answer “ some”, but 9 (18,4%) – the answer “not at all”, (5) for written expression most respondents - 16 (32,7%) have indicated the answer “some”, 3 (6,1%) – the answer “a little”, but 10 (20,4%) – the answer “not at all”, (6) for verbal communication most respondents - 16 (32,7%) have indicated the answer “a little”, 4 (8,2%) – the answer “some”, and 11 (22,4%) – the answer “not at all”, (7) for emotional resilience most respondents - 20 (40,8%) have indicated the answer “a little”, 5

(10,2%) – the answer “some”, but 7 (14,3%) – the answer “not at all”, (8) for persistence most respondents - 16 (32,7%) have indicated the answer “a little”, 5 (10,2%) – the answer “very much”, but 11 (22,4%) – the answer “not at all”, (9) for mental stability most respondents - 14 (28,6%) have indicated the answer “a little”, 7 (16,3%; total 32,6%) – the answers “some” and “a lot”, but 13 (26,5%) – the answer “not at all”, (10) for physical stability most respondents - 15 (30,6%) have indicated the answer “a little”, 8 (16,3%; total 32,6%) – the answers “some” and “a lot”, 8 (16,3%) – the answer “a lot”, but 16 (32,7%) – the answer “not at all”, (11) for mobility most respondents - 21 (42,9%) have indicated the answer “a little”, 4 (8,2%; total 16,4%) – the answers “a lot” and “very much”, but 11 (22,4%) – the answer “not at all”, (12) for room costumization most respondents - 13 (26,5%) have indicated the answer “a little”, 2 (4,1%) – the answer “very much”, but 19 (38,8%) – the answer “not at all”.

Table 3

Students' special needs (n₂= 49)

Value*	Visual perception	Auditory perception	Reading comprehension	Comprehension of written text	Written expression	Verbal communication	Emotional resilience	Persistence	Mental stability	Physical stability	Mobility	Room customization
1	12 (24,5%)	11 (22,4%)	9 (18,4%)	9 (18,4%)	10 (20,4%)	11 (22,4%)	7 (14,3%)	11 (22,4%)	13 (26,5%)	16 (32,7%)	11 (22,4%)	19 (38,8%)
2	12 (24,5%)	17 (34,7%)	19 (38,8%)	19 (38,8%)	15 (30,6%)	16 (32,7%)	20 (40,8%)	16 (32,7%)	14 (28,6%)	15 (30,6%)	21 (42,9%)	13 (26,5%)
3	13 (26,5%)	14 (28,6%)	14 (28,6%)	13 (26,5%)	16 (32,7%)	11 (22,4%)	5 (10,2%)	8 (16,3%)	7 (14,3%)	8 (16,3%)	9 (18,4%)	11 (22,4%)
4	8 (16,3%)	4 (8,2%)	5 (10,2%)	6 (12,2%)	5 (10,2%)	7 (14,3%)	7 (14,3%)	9 (18,4%)	7 (14,3%)	8 (16,3%)	4 (8,2%)	4 (8,2%)
5	4 (8,2%)	3 (6,1%)	2 (4,1%)	2 (4,1%)	3 (6,1%)	4 (8,2%)	10 (20,4%)	5 (10,2%)	8 (16,3%)	2 (4,1%)	4 (8,2%)	2 (4,1%)
Total	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)

*1= not at all, 2=a little, 3= some, 4= a lot, 5= very much

Questions about assistive technologies

To identify the differences between the two groups of respondents ($n_1= 20$ and $n_2= 49$) on the questions of assistive technologies, the *Mann-Whitney Test* was performed. The analysis of the data revealed statistically significant differences in all six questions – $p= 0,021; 0,044; 0,003; 0,001; 0,017; 0,001$ (Table 4).

Table 4

Mann-Whitney Test. Test Statistics^a						
	Have information about AT	Would like to use AT	Use AT	Need additional AT	Need additional skills	Need additional support
Mann-Whitney U	322.500	346.000	286.000	266.000	321.000	250.000
Wilcoxon W	532.500	556.000	496.000	476.000	531.000	460.000
Z	-2.309	-2.016	-2.978	-3.326	-2.385	-3.392
Asymp. Sig. (2-tailed)	.021	.044	.003	.001	.017	.001

According to the obtained data, more information about assistive technologies has the group of respondents ($n_2= 49$) who need support in the study process (Mean Rank= 38,42). The same group would like to use more (Mean Rank= 37,94) and uses more assistive technologies (Mean Rank= 39,16). Also the same group needs more additional assistive technologies (Mean Rank= 39,57), needs to acquire additional skills more (Mean Rank= 38,45), and needs more additional support in the study process (Mean Rank= 39,90) (Table 5).

Table 5

Mann-Whitney Test. Ranks				
	Groups of respondents	N	Mean Rank	Sum of Ranks
Have information about AT	1 - do not need support	20	26.63	532.50
	2 - need support	49	38.42	1882.50
	Total	69		
Would like to use AT	1 - do not need support	20	27.80	556.00
	2 - need support	49	37.94	1859.00
	Total	69		
Use AT	1 - do not need support	20	24.80	496.00
	2 - need support	49	39.16	1919.00
	Total	69		
Need additional AT	1 - do not need support	20	23.80	476.00

	2 - need support	49	39.57	1939.00
	Total	69		
Need additional skills	1 - do not need support	20	26.55	531.00
	2 - need support	49	38.45	1884.00
	Total	69		
Need additional support	1 - do not need support	20	23.00	460.00
	2 - need support	49	39.90	1955.00
	Total	69		

According to the collected data (Table 6), respondents who do not need support in the study process ($n_1= 20$) indicated that they have “a little” to “very much” (15= 75%) information about assistive technologies, but 5 (25%) respondents state that they don’t have information at all. 8 respondents (40%) of this group would like to use assistive technologies in study process from “a little” to “a lot”, but 12 (60%) wouldn’t like to use at all. Only 4 (20%) respondents who don’t need support in study process use assistive technologies “a little”, but 16 (80%) don’t use them at all. Just 2 respondents (10%) indicated “a little” and “some” need of additional assistive technologies in the study process, but 18 (90%) don’t need that at all. 4 respondents (20%) state the little need to acquire additional skills for the use of assistive technologies, 2 (10%) – point “very much”, but 14 (70%) don’t need such skills at all. 9 (45%) respondents of this group indicated “a little” to “some” need of additional support during the study process, but 11 (55%) don’t need such support at all.

Table 6

Questions about assistive technologies. Group 1 ($n_1= 20$)

Value*	Have information about AT	Would like to use AT	Use AT	Need additional AT	Need acquire additional skills	Need additional support
1	5 (25,0%)	12 (60,0%)	16 (80,0%)	18 (90,0%)	14 (70,0%)	11 (55,0%)
2	11 (55,0%)	4 (20,0%)	4 (20,0%)	1 (5,0%)	4 (20,0%)	7 (35,0%)
3	2 (10,0%)	3 (15,0%)		1 (5,0%)		2 (10,0%)
4	1 (5,0%)	1 (5,0%)				
5	1 (5,0%)				2,0 (10,0%)	
Total	20 (100%)	20 (100%)	20 (100%)	20 (100%)	20 (100%)	20 (100%)

*1= not at all, 2=a little, 3= some, 4= a lot, 5= very much

Four (20%) respondents of this group ($n_1= 20$) point to the mentor as the necessary additional support during the study process, one (5%) to the assistant, two (10%) to the psychologist, and two (10%) would need other support (Figure 5).

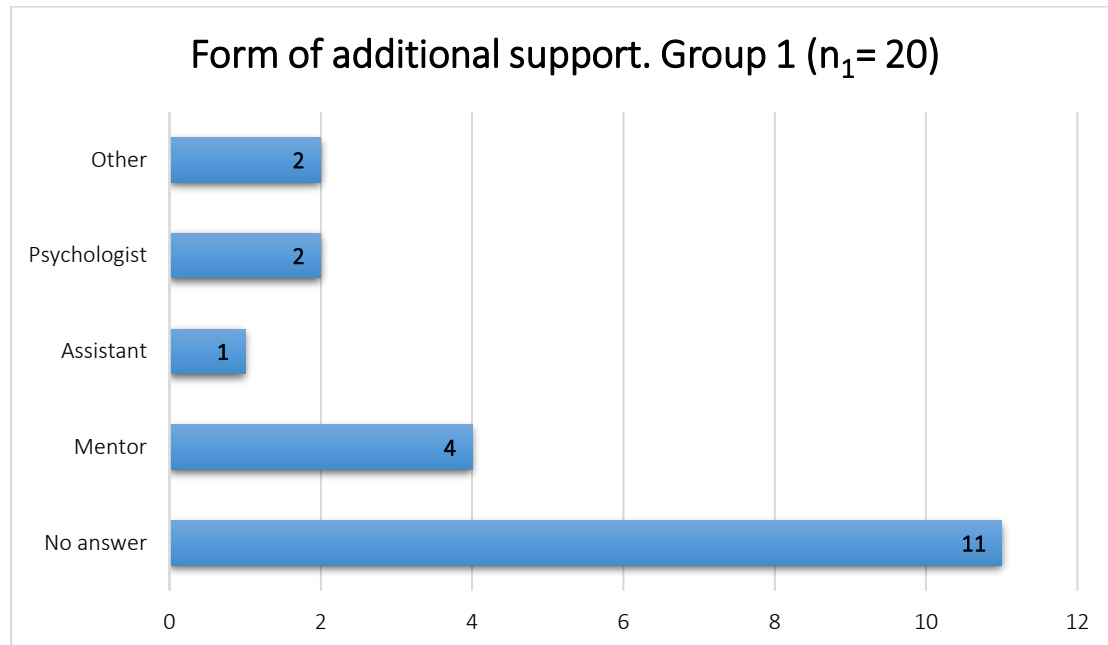


Figure 5. Form of additional support. Group 1 ($n_1= 20$)

According to the collected data (Table 7), 42 (85,7%) respondents from the group who need support in the study process ($n_2= 49$) indicated that they have “a little” to “very much” information about assistive technologies, but 7 (14,3%) respondents state that they don’t have information at all. 30 respondents (61,2%) of this group would like to use assistive technologies in study process “a little” to “very much”, but 19 (38,8%) wouldn’t like to use at all. 27 (55,1%) respondents who need support in study process use assistive technologies “a little” to “very much”, but 22 (44,9%) don’t use them at all. 27 respondents (55,1%) indicated “a little” to “very much” need of additional assistive technologies in the study process, but 22 (44,9%) don’t need that at all. 31 respondents (63,3%) state “a little” to “very much” need to acquire additional skills for the use of assistive technologies, but 18 (36,7%) don’t need such skills at all. 42 (85,7%) respondents of this group indicated “a little” to “very much” need of additional support during the study process, but 7 (14,3%) don’t need such support at all.

Table 7

Questions about assistive technologies. Group 2 (n₂= 49)

Value	Have information about AT	Would like to use AT	Use AT	Need additional AT	Need acquire additional skills	Need additional support
1	7 (14,3%)	19 (38,8%)	22 (44,9%)	22 (44,9%)	18 (36,7%)	7 (14,3%)
2	14 (28,6%)	8 (16,3%)	11 (22,4%)	14 (28,6%)	13 (26,5%)	25 (51,0%)
3	18 (36,7%)	11 (22,4%)	6 (12,2%)	6 (12,2%)	13 (26,5%)	11 (22,4%)
4	8 (16,3%)	9 (18,4%)	8 (16,3%)	5 (10,2%)	4 (8,2%)	3 (6,1%)
5	2 (4,1%)	2 (4,1%)	2 (4,1%)	2 (4,1%)	1 (2,0%)	3 (6,1%)
Total	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)	49 (100%)

*1= not at all, 2=a little, 3= some, 4= a lot, 5= very much

22 (44,9%) respondents of this group (n₂= 49) point to the mentor as the necessary additional support during the study process, 3 (6,1%) to the assistant, 14 (28,6%) to the psychologist, and 3 (6,1%) would need other support (Figure 6).

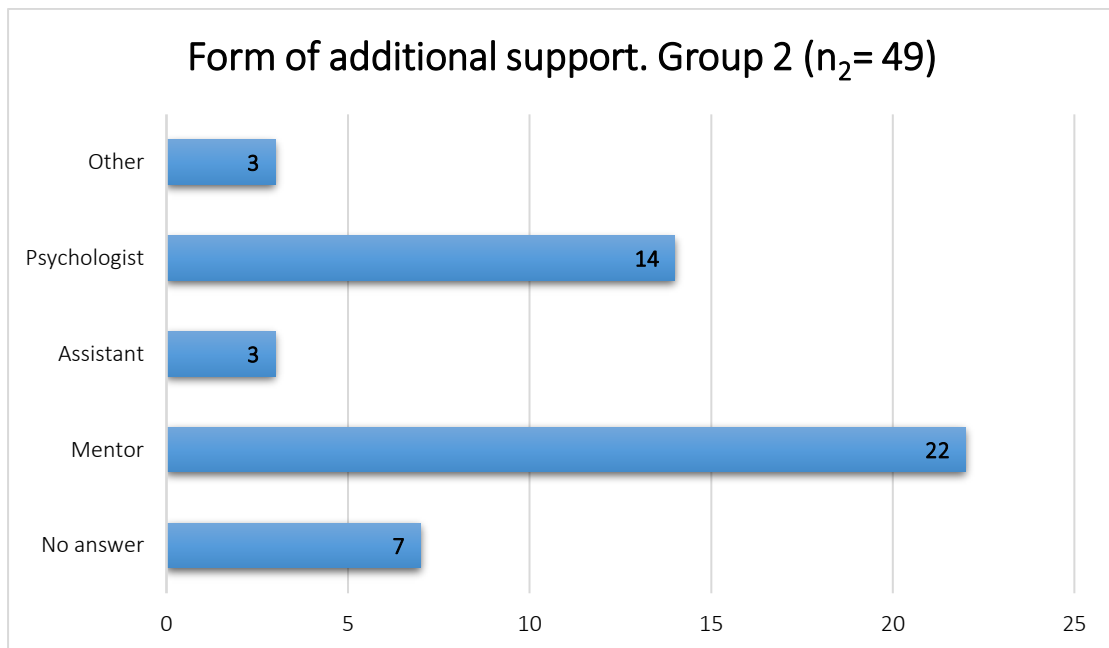


Figure 6. Form of additional support. Group 2 (n₂= 49)