LOVE.DIST@NCE

Improving Access and Quality of Inclusive Higher Education
One Student at a Time

ISRAELI STUDENTS' AND LECTURERS' PERCEPTIONS OF DISTANCE LEARNING

PART OF TASK 1.4 IN WP1

SUBMITTED BY:

Tsipi Heart[1] and Alona Forkosh-Baruch[2]
[1]Ono Academic College, [2]Livinsky College of Education July 2020

ISRAELI STUDENTS' AND STAFF PERCEPTIONS OF DISTANCE LEARNING

(PART OF TASK 1.4 IN WP1)

1. INTRODUCTION

One of the objectives of the ERASMUS+ LOVE.DIST@NCE project is to investigate the specific characteristics of students from special and in many times excluded populations, in order to better tailor distance learning to their needs. Special students are, for example, those with insufficient prior education, students with learning disabilities, students from low-income background, Jewish ultra-Orthodox students, Arab students and students from Ethiopian origin, among others.

In order to elicit and respond to these needs, we designed a questionnaire and intended to distribute it among students representing these and other special populations. However, the COVID-19 pandemic interrupted these efforts. Students were stressed and overloaded as a result of the abrupt switch from frontal to online learning, especially those from the special populations that are the focus of this project. Hence, we assumed that an adequate number of responses to the questionnaire would be impossible to achieve under these circumstances. Therefore, we decided to use data from two surveys conducted at the Faculty of Business Administration and at the Faculty of Law, at Ono Academic College (OAC), and in an institutional manner at Levinsky College of Education (LCE). Although the surveys were not designed as part of this project, they included data regarding the student's perceptions of distance learning, which we analyzed in both institutions, thereby achieving a preliminary picture of the state of the art in both colleges.

Since OAC's vision is "Changing the Face of the Israeli Society", many of our students come from the above- mentioned special populations. OAC's academic programs are specifically tailored for working students to attend classes two-three times a week for eight semesters of 12 weeks each, in undergraduate programs. Nearly 100% of these students work full time during their study period of 3-4 years. Some are older than the typical student, with their own family.

LCE's vision is focused on transforming education in a way that includes not only K12 students from special, excluded population, but also HE students, to be future teachers, from these very populations, e.g., Ultra- Orthodox students, pre-service teachers with special needs – learning disabilities, visually impaired, with CP, Ethiopian-in-origin preservice teachers, preservice teachers from the Arab sector, among others.

We next describe the surveyed populations from both institutions, data collection and analysis methods. We then bring the results and conclude with a brief discussion.

2. METHODS

2.1 THE LEARNING ENVIRONMENT AND SURVEYED POPULATION

Many students both in OAC and LCE come from Israel's geographic and social peripheries, most with prior educational gaps. In OAC they are conditionally accepted, pending successful completion of preparatory studies, aimed at closing gaps mainly in mathematics, English and learning strategies. Students whose native language is not Hebrew also receive Hebrew lessons. About 20% of OAC students are Arabs, 2% are from Ethiopian origin, and 15% are ultra-Orthodox Jews.

At LCE, students are either accepted as full students, or undergo a preparatory year in which basic skills are taught, in addition to basic knowledge in English and learning strategies. Students need to reach Hebrew language standards as expected from teachers in the public Hebrew sector, which is the target population of the college. About LCE students from sub-populations include the Arab sector, students with special needs, ultra-Orthodox Jewish women, and an additional sub-group from Ethiopian origin, many of them studying in a preparatory program. According to Israeli law and college regulations, receiving data on one's religious beliefs or sector, as well as their special needs, in prohibited. If these populations turn to the adequate support given to them, we can identify them, but the regulations of the college do not allow us to label these populations. However, there is an estimation of about 20% with special needs.

OAC presents herewith results of two surveys conducted during the first two semesters of 2020. Participants in the first survey are students in the Faculty of Business Administration, specializing in one of six majors: Finance, Real Estate Management, Information Systems, Human Resource Management, Accountancy and Advertising and Marketing Communications. All classes are heterogeneous, where students from all populations study together, except ultra-Orthodox students who study in gender-separate classes in special campuses. Most courses are taught in the classroom, with only one or two asynchronous online courses given during the three academic years. Participants in the second survey are students in the Faculty of Law, studying the Contract Law course in Semesters 1 and 2, 2020. Students come from all parts of Israeli society, including minorities.

LCE presents herewith results of two components of the data collection: the first component included a survey conducted during the first month of the lockdown, which was imposed by the COVID-19 pandemic, thereby causing a hasty shift from face to face instruction to fully online teaching and learning. The survey, distributed by the Center for Innovation and Excellence in Teaching headed by Dr. Shevi Govrin and planned and analyzed by Dr. Orit Eisenberg, head of the Simulation Unit, encompassed all academic units in the college, in which students learn in heterogeneous classes, where students from all sub-populations study jointly. One exception are ultra-Orthodox female students who study in gender-separate classes in a special program. Most courses are taught in regular times face to face, with some online courses (synchronous or a synchronous taught during the three years of students' bachelor's degree; in fact, all students are obliged to study at least one fully- online course also in regular times. The second component included 12 interviews of lecturers and position holders in the college, and were carried out by the LCE team, including Dr. Sharon Hardof, Dr. Gal Manor and Dr. Alona Forkosh-Baruch.

2.2 THE SURVEYS – OAC

2.2.1 THE FIRST SURVEY

The survey aimed at assessing students' satisfaction, regularly conducted at the end of each semester.

The survey includes 3 questions on a 1 (very low) to 7 (very high) Likert scale for each course the students was registered to:

1. Grade your general satisfaction from the course

2. Grade your general satisfaction from the lecturer

3. Grade your attendance in class

There are four options for open comments: indicate positive comments about the course, indicate positive comments about the lecturer, and the same for negative comments.

The spring semester at OAC started on February 23 and ended on June 3rd, 2020, lasting longer than 12 weeks because of holidays. However, the campus was shut down on March 18 due to the corona virus lockdown, and all teaching and learning was switched to Zoom overnight. This situation went on till the end of the semester; thus 9 out of 12 lessons were taught online.

In light of the sudden change in teaching and learning mode, an open question about online learning was added to the survey: "Indicate strong and weak points of learning online".

The survey was distributed online during the last three weeks of the semester. Students received notifications by email with a link to the survey, with two reminders to those who had not yet completed the survey. Responses are fully anonymous.

The responses were accumulated in Excel format and analyzed per course. The open remarks per course are part of each individual report. Descriptive statistics were distributed to the Faculty management.

The remarks of the open question regarding the online learning were provided as a separate file with text only. Our analysis was limited to the comments about online learning. The file was imported into Excel where each comment was written in a separate line.

We first assessed whether the comment is positive, negative or neutral. A comment was marked 'positive' when the students wrote that they liked distance learning, got used to it after a while, appreciate OAC's efforts to switch overnight, etc. A comment was marked 'negative' when the students wrote they totally disliked online learning. It was marked 'neutral' when students wrote they had no choice, so they got used to it but still preferred frontal lessons, or when they wrote 'so-so', or similar. We then marked reasons for the specified perception based on the students' comments.

Seven main categories were identified for the positive comments, and 11 for the negative ones (see Tables 2 and 3).

Due to the dual questions embedded in the open question about distance learning, many students indicated what they liked and what they disliked. In this case, the comment was split to one positive and one negative comment, and the relevant reasons marked for each sub-comment.

2.2.2 THE SECOND SURVEY

Contract Law is a fundamental course taught at OAC's Faculty of Law in the first year. The first quarter of the course is taught in class, presenting the principles of contract law. Then, students are asked to view several asynchronous online lessons explaining Rental Law, a subset of contract law. In the third quarter of the semester students participate in a simulation with a professional actor, enacting an encounter between a lawyer and a customer on issues related to a rental contract. Then, in the last part of the course, the students are asked to write a rental contract on their own.

Students enrolled in the Contract Law course were asked to respond to a survey conducted during the last lesson of each of the two 2020 terms. They were asked to rate the four T&L methods on 1 (least preferred) and 5 (most preferred) Likert scale. 417 students who attended class responded voluntarily and anonymously to the survey.

2.3. THE SURVEYS - LCE

2.3.1. THE FIRST SURVEY

The spring semester at LCE began on March 2nd and ended on June 25th, 2020, including 14 weeks of learning (not including national or religious holidays). Due to the COVID-19 pandemic, LCE's Tel-Aviv campus was shut down on March 15, with all academic activities, including courses, moved to fully online. The lockdown remained valid till the end of the semester; thus 9 out of 12 lessons were taught online.

The goal of the survey was to evaluate students' satisfaction and coping with learning fully-online, specifically with regards to the unique situation of extensive distance learning as a result of the COVID-19 pandemic. Our intention was to identify the challenges of distance learning in usually-face-to-face courses, the components that were preferred by students, the advantages of distance learning, as well as the conditions that enabled them to learn better online.

The survey included 9 questions, some including multiple items:

1. Allocation to all programs and disciplines of the student (tick all that apply)

2. Which tools and learning methods were utilized by the lecturers in the courses you attended online in the last two weeks (tick all that apply – of 13 options)

3. Which of all the following tools and learning methods you marked had best worked (e.g., contributed to meaningful or efficient learning, was enjoyable etc.) (tick one of 13 options)

4. Describe in short the usage of the tool or learning method you indicated in the previous item and explain why in your opinion it worked (open-ended question)

5. Describe in short the usage of a tool or learning method that were less meaningful to you, and explain why in your opinion it didn't work well (open-ended question)

6. In how many of your courses online synchronous meetings took place? (none, 1,2,3, more than 3)

7. If you participated in a synchronous meeting, which of the following sentences describe your experience from the meeting? (tick all that apply – of 7 options)

8. Rate your agreement with each of the following sentences on a 1 (totally disagree) to 4 (agree completely) Likert scale – regarding distance learning as an equitative means of teaching and learning (6 items)

There were also open items: indicate online tools or teaching methods that worked well for you, describe it and indicate why it worked for your learning in a positive way, and indicate online tools or teaching methods that did not work well for you, describe it and indicate why it failed to assist you in your learning.

The survey was distributed online during the first month of the spring semester. Students were notified of the survey by email, using the students' area in the college administrative system, where a direct link to the survey was included. Reminders were sent on a weekly basis to all students, since responses were fully anonymous (i.e., there was no link between the respondent and any personal details). Since the college has an institutional Google account, responses were collected in a Google sheet and analyzed thereafter. The responses to the open questions were recorded in full. We mostly performed descriptive statistics; a summary of the report was distributed to staff as well as students, in an aim to promote transparency and supply faculty and students with information in order to make informed decisions regarding distance learning via online platforms. The information regarding distance learning and its adoption was of great importance, as it assisted the college to make systemic decisions, promoted preferred modes of teaching and learning, and supplied information regarding difficulties and obstacles. Altogether 518 students responded to the first survey.

2.3.2. THE SECOND SURVEY

Towards the end of the semester, after studying practically the whole semester in online modes, either synchronous or a synchronous, students were approached with yet another questionnaire, similar to one they had responded to at the beginning of the semester. This type of survey is typically administered at the end of each semester as a student satisfaction survey. This year, due to the unique circumstances of the COVID-19 pandemic, this survey was adapted to the new learning modes and conditions, i.e., online distance learning. Altogether 352 students responded to the second survey.

2.4 FACULTY INTERVIEWS - LCE

The method of analysis is based on grounded theory, a qualitative methodology in the social sciences (Chun Tie, Birks, and Francis, 2019). Grounded theory is an inductive method that begins with raw material from the field which is then examined for the themes and content areas that emerge from it. Finally, a theory or model is produced from this initial data, in this case, interviews.

Altogether, 12 interviews were conducted with faculty members of LCE, who are engaged in teaching or coordinating the teaching of special populations. The interviewees, who have all had an extended experience with underprivileged populations, were chosen in consultation with position holders at LCE. The interviewees were informed about the Erasmus Plus project and its goals concerning the democratization of distance learning, with special emphasis on underprivileged populations. The definition of underprivileged populations was not supplied to the interviewers in order to allow the interviewees to produce fresh and authentic responses. Herewith in Table 1 is a list of the interviewees and their roles in the college.

Date	Interviewee	Role in college	Interviewer
April 18th 2020	S.H.	Staff member of the Special Education Dept. experienced in teaching fully-online courses	Alona Forkosh Baruch
April 21st 2020	D.H.	Head of the center for students with special needs	Sharon Hardof
April 21st 2020	E.L.	Coordinator of the English for Academic Purposes courses – including students from diverse backgrounds	Gal manor
April 21st 2020	M.H.	Head of the English Department	Gal manor
April 22nd 2020	G.M.	Staff member of the English dept., teaches courses with heterogeneous students from diverse backgrounds	Alona Forkosh Baruch
April 22nd 2020	L.O.	Coordinator of students from the Arab sector (this interview was not used due to technical problems in its recording)	Sharon Hardof
April 22nd 2020	O.M.	Dean of students	Alona Forkosh Baruch
April 22nd 2020	M.K.S.	Coordinator, newcomer students (Jewish students that Hebrew is not their mother tongue)	Sharon Hardof
April 23rd 2020	S.B.	Member of the Center for Innovation and Excellence in Teaching in charge of staff PD in the field of online learning	Gal manor
April 24th 2020	R.Q.	Staff member of the English Dept., teaches courses with heterogeneous students from diverse backgrounds	Gal manor
April 26th 2020	T.S.G.	Head of the B.Ed. Program for the ultra-orthodox women	Alona Forkosh Baruch
April 26th 2020	I.H.	Staff member of the Special Education Dept. experienced in teaching fully-online courses; lecturer with special needs	Alona Forkosh Baruch

Table 1: list of faculty members interviewed for LOVE.DIST@NCE project

The interview, adapted from Townsend (2018), consisted of thirteen open questions which were posed to lecturers in a semi struc-tured interview (Adams, 2015). The interview consisted of thirteen questions about the interviewees' experiences with underpriv-ileged populations and their needs and the advantages and challenges of distance learning with these populations (Townsend, 2018).

All interviews were conducted – due to the COVID-19 pandemic – using the Zoom synchronous platform, excluding one interview which was conducted by phone to the interviewee's request. Interviews' length

ranges from 30 minutes to over 1 hour and 40 minutes. Interviewers were the three LOVE.DIST@NCE team members. Interviews were conducted on the second half of April 2020/ At first, one interview was conducted as a pilot; then the team members dis-cussed issues arising from that interview and resolved them, in order to gain as much information as possible in a way that was not exhaustive to the interviewee.

All interviews were recorded upon the interviewee's consent. Recordings were then outsourced for transcription. LCE is accus-tomed to using transcription services from outside the college, since we do not have these services within our institute. Moreover, our college works with a particular company that hires blind people for transcription services. Since we are a project that focuses on democratization and inclusion, we thought that it is appropriate to utilize this service from this company.

Upon receiving the transcriptions, they were analyzed by LCE LOVE.DIST@NCE staff in order to identify lecturers' perceptions of equity access and democratization with specific reference to distance learning,

which is currently the only mode of learning in the college. This was achieved by identifying major themes – a method which we at LCE are accustomed to, since qualitative methodology is dominant in our college, which studies the educational milieu extensively and aims to reach deep understanding of educational processes.

3. RESULTS

3.1 OAC RESULTS – SURVEYS

3.1.1. THE FIRST SURVEY

1010 students responded to the survey, providing 587 remarks about strengths and weaknesses of the online courses. 'Strengths' mentioned by the student were designated as a positive comment, and 'weaknesses' – as a negative one. 360 (52%) negative comments were identified, 292 (43%) positive comments, 21 (3%) neutral comments and 15 (2%) comments were illegible. Tables 2 and 3 display the positive and negative comments distribution among the various categories, respectively. Please note that com-ments could contribute to more than one category; therefore, the number of comments by category is larger than the raw number of students' comments.

No.	Category Description	Number (%) of positive comments	Examples of Positive Comments
1	Easier to concentrate	24 (~6%)	"I enjoyed the quietness, and the fact that I could concentrate with-out other students talking around me..." (In an online lesson)"it is possible to listen to the lecturer in a quiet, homely environment." "In the online lessons there were no interferences as in the frontal class and no external noise..."
2	Lesson recordings	133 (32.6%)	"It is possible to watch the lesson later on." "I am satisfied with the recordings, it allowed me to complete lessons I had to miss because of work." "The recordings are really convenient. It is possible to go over the lesson again in case you missed or did not understand something." "The recordings made it possible for me to watch the lessons several times. It helped me a lot."
3	Higher or equal course level compared to frontal learning	37 (9%)	"The online lesson is focused, and the materials are taught in an effi-cient and organized way."
4	Capable Lecturers	69 (~17%)	"Great lecturers. They invest a lot of efforts. A great experience." "The lecturer was patient and fun and even more clear than in class." "Lecturers adapted the materials to the Zoom platform." "In the beginning the lecturers did not get along with the technology, but they learned quickly and eventually the teaching was very posi-tive."
5	Close lecturer/student relation-ships	15 (3.7%)	"Most of the lecturers were available at all times." "Lecturers were considerate, they understood students' challenges during the corona virus lockdown, especially those having to care for children." "I appreciate lecturers who send the link some time ahead and not at the last minute." "We got answers for every question."
6	Comfort of learning from home	52 (12.7%)	"The online learning saved me travel time, coming to Kiryat Ono from the South." "It is more convenient to learn like this, you don't have to go out from home, so it is more comfortable to combine learning and work. The re-cordings are always available, and it is possible to watch in the evening." "I can sit at home or in the office and connect to the lesson."
7	General satisfaction	78 (~19%)	"I am very satisfied with online teaching and learning. I think online learning is more efficient" "Everything worked very well." "I am very satisfied with online courses, there were no problems. I was able to optimize my learning
	Total	408	

Table 2. Analysis of the positive comments

No.	Category Description	Number of negative comments	Examples of Negative Comments
1	Difficult to concentrate	126 (26.6%)	"It is difficult to concentrate for so many hours. If online courses continue it is necessary to shorten them." "It is very difficult to concentrate during online courses." "Although the lecturers tried to explain the material, I did not succeed because I could not understand the materials in this way." "Online learning is inadequate for the taught material, especially when there is a long day. Sitting in front of a computer is tiresome and causes inability to concentrate." "I am a person who does not get along with learning through the computer, and there was no one to explain and help me for it to be effective/efficient."
2	Lower course level compared to frontal learning/interactivity	34 (~7%)	"It is too bad that the online course was incomplete. There were talks in the background about theory, and this, also, was very little" "Lessons were not well organized." "Course level was jeopardized because we could not access software installed in the computer labs." "The online course quality was not as high as the frontal courses." "It is necessary to teach full lessons and not half" "The online lessons did not cover the full course materials. We felt that lessons were prolonged just to fill in the time."
3	Incapable lecturers	72 (~15%)	"Lecturers should learn how to master the technology, how to properly record the lectures". "The teaching manner of the online courses was not clear. It was impossible to close the gaps". "It is necessary to teach slower, as it is more difficult to summarize during online lectures."
4	Difficult to learn quantitative courses	29 (~6%)	"It is difficult to teach quantitative courses via Zoom. It is easy to lose the lecturer in the middle of the solution." "It is necessary to provide means for lecturers teaching quantitative courses so they can write as on a whiteboard." "For courses that require calculations I prefer an organized solution on the whiteboard that on PPT or PDF."

5	Lecturer/student relationship problems	47 (~10%)	"The dynamics between lecturer and students is missing." "I am a person who does not get along with studying via a computer, since I did not have anyone to explain things to me...." "Lecturers need to improve their attention to and relationships with students at the other end."
6	Overload	37 (7.8%)	"The online learning takes longer, since we have to go over the recordings, and this is while having to manage home and children. A very difficult situation." "At home with children and full employment, it was very difficult for me." "Unfortunately, it was very difficult for me to study online, since I was home alone with two children because my husband works in the police force."
7	Technology problems	53 (~11%)	"Not all lessons were recorded, there were pauses and discontinuations." "You have to teach lecturers how to teach online, as it is totally different from frontal teaching." "Lecturers should have given more training." "Lack of group interaction and interaction in general". "It is necessary to share the screen during the lecture and teach in smaller groups." "Online teaching should be more like a workshop."
8	Insufficient learning and teaching materials/exercises	11 (2.3%)	"Lecturers should post lesson summaries online, because it is difficult to watch long recordings." "Lecturers should include presentations and the main points of the teaching materials, and not lecture without presenting anything." "It is necessary to cut down the recordings into smaller parts, with division to topics." "More exercises are needed, frontal if possible."
9	Special needs	4 (~0.1%)	"I could not study from a computer since I do not have a computer at home." "Many ultra-Orthodox students are married with children, and cannot learn from home." "I could not watch the online lessons, since I do not have Internet at home, and a Kosher smartphone. I use the Internet from my father who is an elderly person, therefore I could not visit him. I expect the ultra-Orthodox campus to consider these barriers."

10	Course management problems	15 (~3%)	"I think the online course was appalling It was impossible to learn, students break in and talk or the network is not working properly, and it gets stuck quite often." "It is very difficult to concentrate in front of a computer for a long time. More frequent breaks are required." "There were participants who did not belong to the class who entered the lesson and interfered. This happened several times." "The lecturer has to control over students talking... lecturers should be trained to master the technology so they can manage the course properly."
11	General low satisfaction	46 (9.7%)	"Nothing can compare to studying on campus." "It is a difficult experience." "It is simply horrible."
	Total	474	

Table 3. Analysis of the negative comments

As evident in Table 2, apart from general satisfaction, the three most prevalent advantages of online learning, as perceived by the students, were: 1) The lessons' recordings (133 comments), 2) Capable lecturers (69 comments), and 3) Comfort of learning from home (52 comments).

Table 3 shows that apart from general dissatisfaction, the three most frequently mentioned weaknesses of online learning were: 1) Difficult to concentrate (126 comments), 2) Incapable lecturers (72 comments), and 3) Technology problems (53 comments).

Figures 1 and 2 graphically display the distributions of the positive and negative comments.

Online Learning: Positive Comments
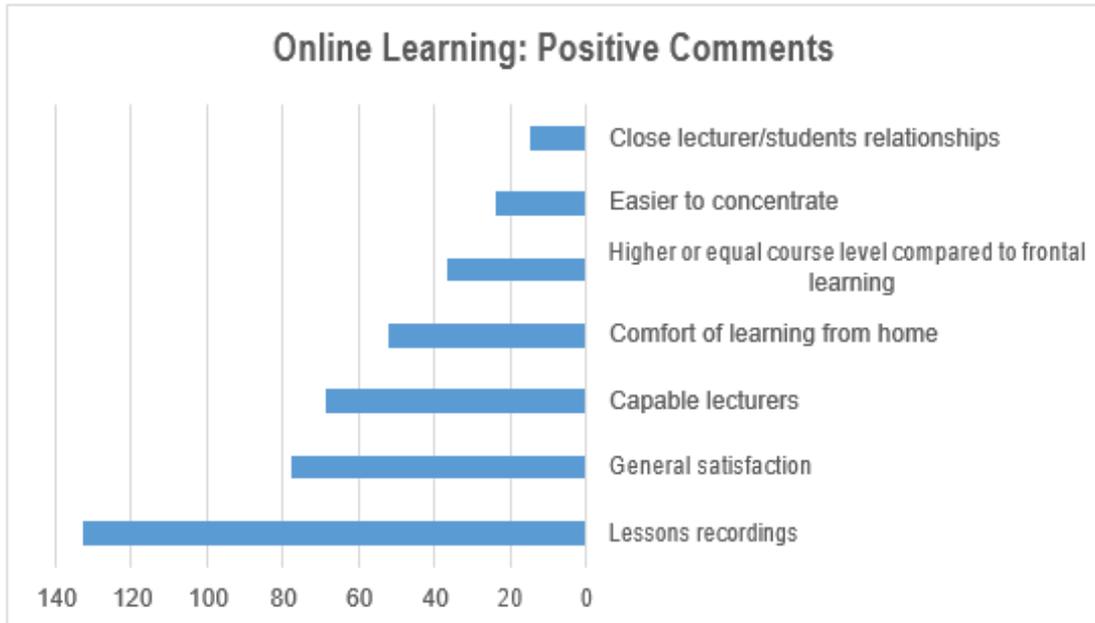
Figure 1. Distribution of positive comments about online learning

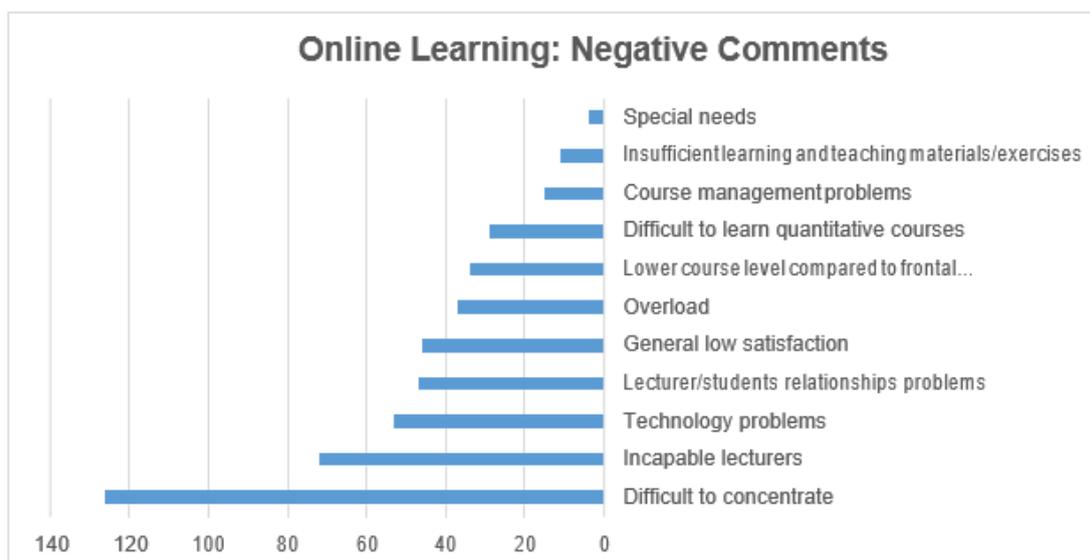**Online Learning: Negative Comments**

Figure 2: Distribution of negative comments about online learning

3.1.2. THE SECOND SURVEY

417 students responded to the second survey, all of them first year Law students enrolled in the Contract Law course. Table 4 displays the respondents' descriptive statistics.

Variable		N	%
Campus	General	355	85.10%
	Ultra-Orthodox	62	14.90%
Gender	Males	214	51.30%
	Female	203	48.70%
Religion	Jewish	321	77.20%
	Muslim	59	14.20%
	Christian	21	5.00%
	Druze	13	3.10%
	Other	2	0.50%
Level of Religious-ness	Secular	165	39.60%
	Traditional	130	31.20%
	Religious	71	17.00%
	Ultra-Orthodox	51	12.20%
Country of Birth	Israel	371	90.50%
	Ethiopia	7	1.70%
	Former USSR	14	3.40%
	Europe	10	2.40%
	USA	6	1.50%
	Afghanistan/Iraq	2	0.50%
Native Language	Hebrew	287	68.80%
	Arabic	85	20.40%
	English	11	2.60%
	Russian	14	3.40%
	Amharic	9	2.20%
	French	4	1.00%
	Other	7	1.70%
Any Disabilities	No	343	82.30%
	Yes	74	17.70%
Disabilities	Physical	6	1.40%
	Visual	12	2.90%
	Hearing	5	1.20%
	Learning	49	11.80%
	Mental	8	1.90%
	Communication	9	2.20%
	Other	2	0.50%

Table 4. Descriptive statistics of the respondents

3.1.3. GENERAL RESULTS

Students were asked to indicate their preferences as to the four teaching and learning (T&L) methods practiced during this course: frontal, asynchronous online, simulation and a written assignment.

As expected, frontal learning was the most preferred method, and online learning – the least preferred (Figure 3).
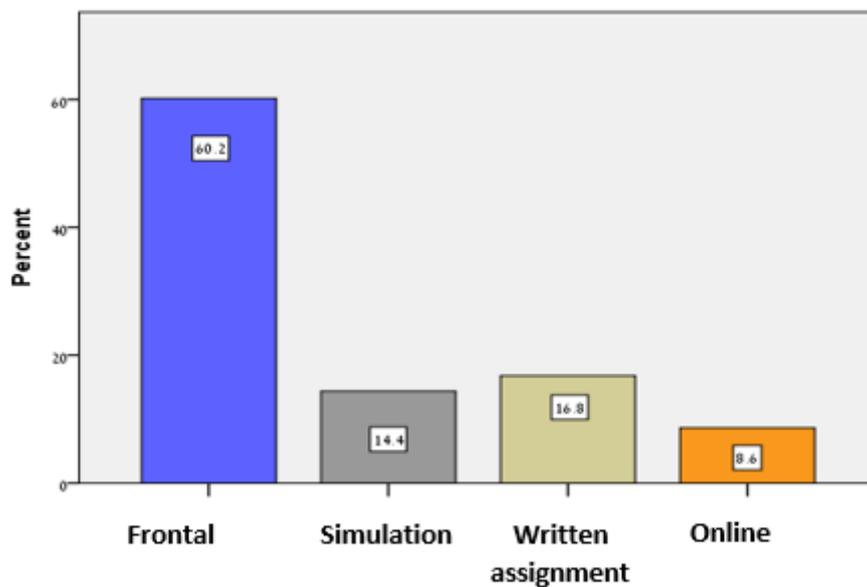

Figure 3. The most preferred learning method

	Females (214)		Males (203)		
	Mean	SD	Mean	SD	t
Frontal T&L	3.98	0.86	4.26	0.8	–3.42**
Simulation	3.81	1.06	3.93	1.09	–1.10
Written Assignment	4.04	0.89	4.27	0.86	–2.61**
Online T&L	3.52	1.16	3.7	1.18	–1.58
Combination	4.1	0.84	4.28	0.84	–2.15*

$p<.05^*$, $p<.01^{**}$

Table 5. Preferred T&L method by gender

3.1.4. RESULTS BY GENDER AND AGE

Although females were generally less satisfied than males, their preference pattern was similar: both genders least preferred online T&L, then simulation, frontal T&L and then written assignment as the most preferred method (Table 5). Differences in the mean satisfaction value among the four methods were more significant for females than for males. For example, whereas females rated their preference for the written assignment method as 4.04 and frontal T&L as 3.89, males rated written assignment 4.27

and frontal T&L as 4.26, an insignificant difference. It is, however, noticeable that both genders preferred the combined T&L method even over the frontal or written assignment methods, more so for females.

Similarly, there were no statistically significant differences between younger and older students, hence age was not found as a factor defining a unique population according to this survey and sample.

3.1.5. RESULTS BY POPULATION

3.1.5.1. COMPARISON BY DEGREE OG RELIGIOUSNESS

We next bring the differences among students from special populations, starting with Jewish ultra-Orthodox students.

Since ultra-Orthodox students require gender separation, they study in a designated campus, while all three other campuses are 'general', namely, with a mixed student population.

Table 6 and Figure 4 show that ultra-Orthodox students did not significantly differ from regular students in their preference pattern. Similar to others, they most preferred the written assignment method, albeit rated it lower in terms of satisfaction (Mean = 4.09 compared to 4.48 in the general population, t=3.20) than students studying in the general campus. Frontal T&L was rated second by students from the two populations (4.08 for the ultra-Orthodox and 4.3 in the general population), then simulation and finally – online T&L (3.65 for the ultra-Orthodox and 3.32 for the general population, t=2.05). Ultra-Orthodox students, however, rated the combined method as the most preferred, above all four distinctive methods, while general students rated it somewhat below written assignment and frontal T&L (Mean = 4.24 versus Mean = 4.48 and 4.3). The results indicate that ultra-Orthodox are generally less satisfied then their counterparts from the general population, yet do not significantly differ in their learning method preferences, at least in this sample.

	General (355)		Ultra-Orthodox (62)		
	Mean	*SD*	*Mean*	*SD*	*t*
Frontal T&L	4.08	0.85	4.3	0.79	–1.87
Simulation	3.87	1.05	3.88	1.21	–0.10
Written Assignment	4.09	0.89	4.48	0.77	**–3.20****
Online T&L	3.65	1.14	3.32	1.31	**2.05***
Combination	4.18	0.81	4.24	1	–0.47

*p<.05 , **p<.01

Table 6. Comparison of preferences of ultra-Orthodox students to those studying in the general campus
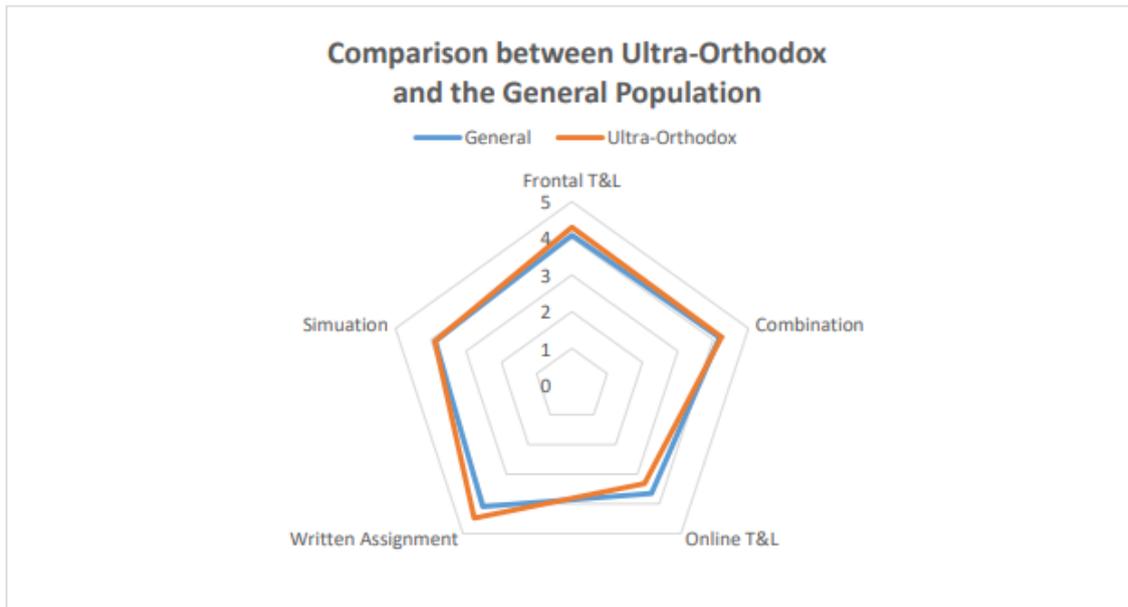
Figure 4. Comparison between ultra-Orthodox students and the general student population

Next, we compared the preferred T&L methods by degree of religiousness. This is because in Israel religious and ultra-Orthodox people comprise a unique culture: they tend to live in separate neighborhoods, they do not study/work on the Sabbath, and often come from a different background than non-religious (secular) students in terms of prior education. Likewise, many traditional students come from lower socio-economic groups than secular students. As such, it was interesting to examine their T&L preferences.

We asked students to indicate their most preferred method, and then their least preferred method in a separate question, for consistency purposes. Interestingly, there were no statistically significant differences among the four populations ($\chi2$ (3) = 9.66, p<.05) in the most preferred method, with a general preference for frontal T&L. In contrast, significant differences were found in the least preferred method. Although all four populations indicated online T&L as their least preferred method, they differed on the preferences of the other three methods. See Figure 5.

While 50% to 60% of the respondents from both populations indicated that online T&L was their least preferred method, ultra-Orthodox students preferred written assignments significantly less than the three other populations. Similarly, religious students preferred the simulation method less than all the other three populations. We also see differences among the populations in their preference of written assignment.
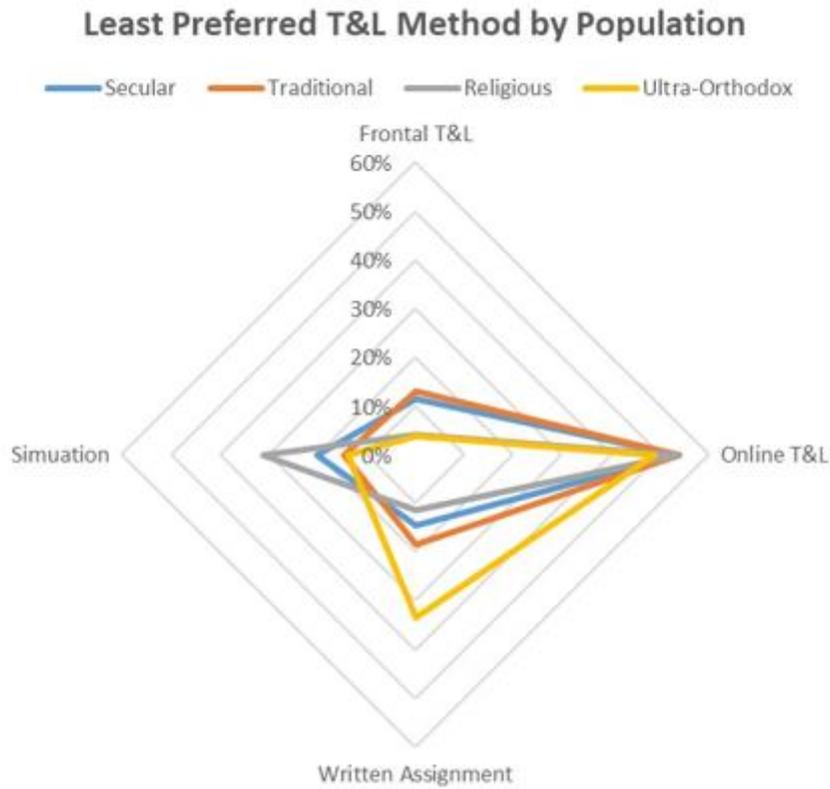
Figure 5. Comparison among the least preferred methods

3.1.5.2 COMPARISON BY RELIGION

We next ran similar tests to assess differences by religion, since the non-Jewish population is a minority in Israel, currently under-represented in HE. Table 7 shows the differences in students' satisfaction with the four T&L methods and combination. Overall, non-Jewish students were less satisfied with all T&L methods than their Jewish counterparts. This might indicate a general difficulty they encounter during their studies. Nevertheless, their satisfaction pattern is similar to the general population: combined T&L is the method with the highest satisfaction, followed by written assignment. Yet while simulation is the third method of satisfaction in the non-Jewish population, followed by frontal T&L, it is the other way around in the Jewish student population. Thus, non-Jewish students, who are mainly Muslims (belong to the Israeli Arabminorities), are most satisfied with methods that are not frontal classes. These findings merit further investigation. However, there is a consensus among the respondents, regardless of religion, that online T&L is the method with the lowest satisfaction level.

In terms of most preferred T&L method, there were no statistically significant differences among the populations. Frontal T&L was the most preferred method, significantly outnumbering all other methods, and online T&L was the least preferred. However, when asked to rate the least preferred method, several differences between the Jewish and other populations were noticed. Figure 6 shows that while students from both populations preferred online T&L the least, there are significant differences ($\chi2$ (3) = 12.60, p<.01) in their preferences of the other three methods. While for the Jewish students the second least preferred method was simulation, then written assignment and then frontal T&L, for the other students it was written assignment, then frontal T&L and finally, simulation. These findings corroborate the previous findings of students' satisfaction of the four methods by religion.

| | Jewish (321) | | Other (96) | | |
	Mean	SD	Mean	SD	t
Frontal T&L	4.19	0.8	3.88	0.95	3.11**
Simulation	3.86	1.13	3.9	0.95	–0.26
Written Assignment	4.21	0.87	3.95	0.89	2.50*
Online T&L	3.59	1.2	3.64	1.07	–0.29
Combination	4.25	0.82	3.98	0.9	2.71**

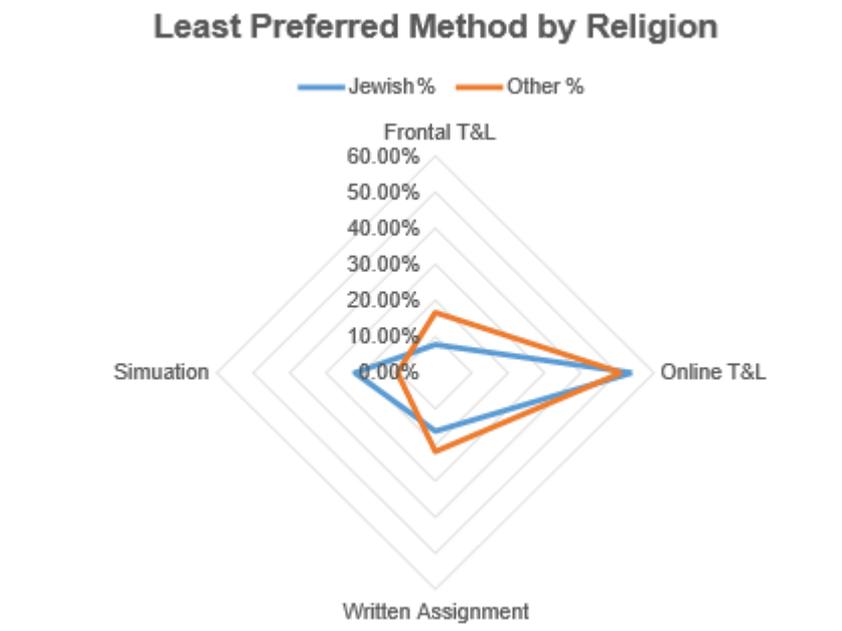Table 7. Comparison of students' satisfaction by religion

Figure 6. Comparison of the least preferred method between Jewish and other students

3.1.5.3. COMPARISON BY NATIVE LANGUAGE

A picture similar to the findings for Jewish vs. other students emerges when analyzing the responses by native language. We grouped the responses to Hebrew, Arabic and Other native language speakers.

While no significant differences were observed for the most preferred method, the three populations differed on the least preferred method ($\chi2$ (6) = 15.62, p<.05). Online T&L was the least preferred method indicated by all three groups, outnumbering all other three methods. Yet, while Hebrew speaking students least preferred simulation, then written assignment and finally frontal T&L, Arabic speaking students least preferred written assignment, frontal T&L and finally, simulation. Students with native languages other than Hebrew or Arabic equally least preferred frontal T&L and simulation, and then written assignment. Thus, it seems that apart from common general dislike for online T&L, students from minority populations in terms of native language prefer non-frontal T&L methods, such as simulation or written assignments. These findings are aligned with the previous ones for other minorities, for example Muslims or ultra-Orthodox Jews.
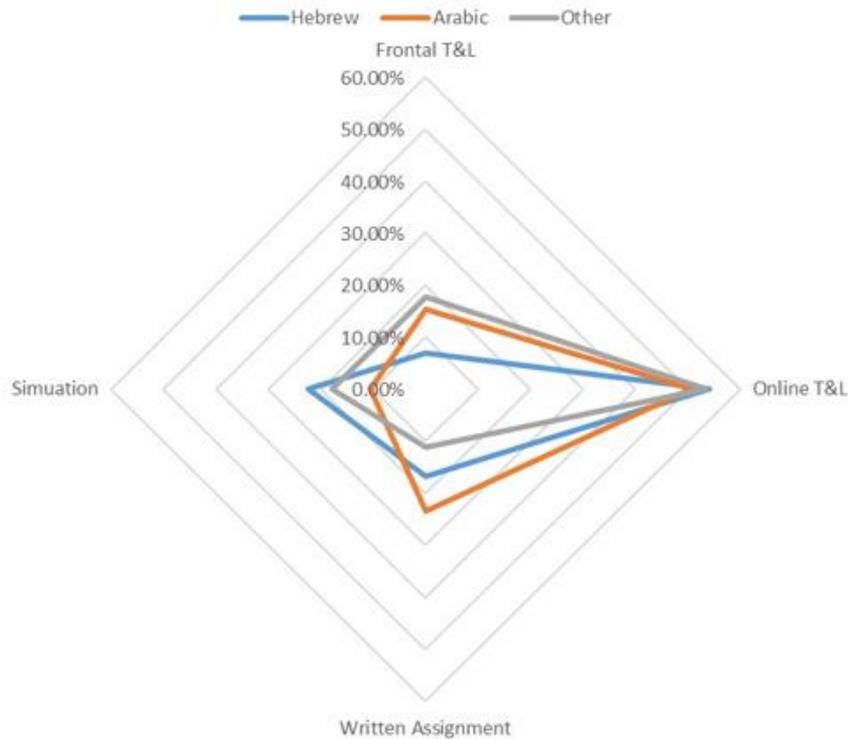
Figure 7. Comparison among the least preferred T&L methods by native language

3.1.5.4 COMPARISON BY DISABILITIES

It was impossible to analyze by disability type because the groups were too small, so we grouped all disabilities into one group of students. Interestingly, there were no statistically significant differences between students with any type of disability and students without any disabilities.

3.2 LCR RESULTS – SURVEYS

3.2.1 THE FIRST SURVEY

Altogether, 518 students responded to the survey. Distribution was as presented in Figure 8.
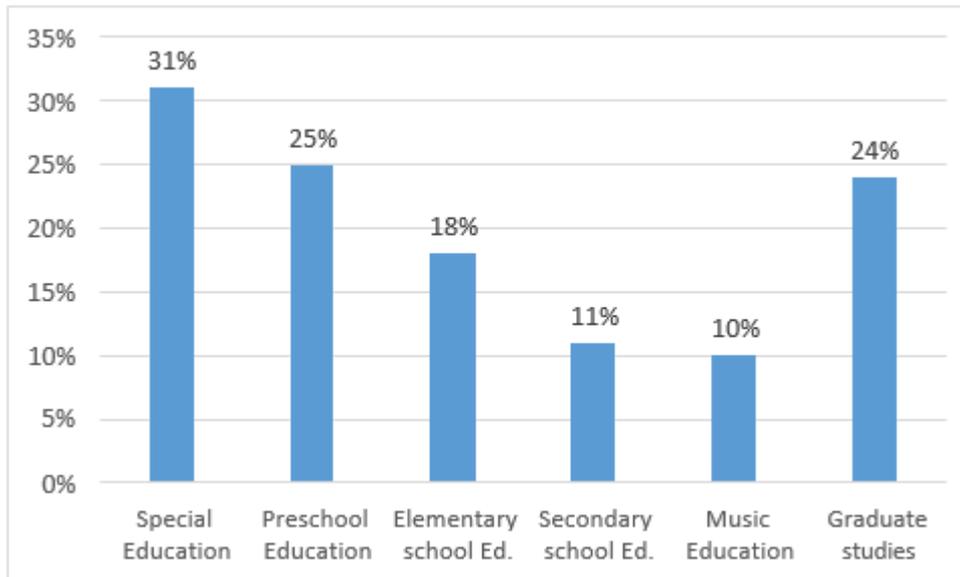

Figure 8: Distribution of respondents to the survey (N=518)

Most respondents were either from the special education department or the older students studying for their graduate degree or teaching certificate. These students may be more sensitive to individual differences among students, as well as to populations with special needs.

Respondents were requested to report on tools and learning methods that were utilized by the lecturers in the courses they attended in a distant–online mode. Results are presented in Figure 9.
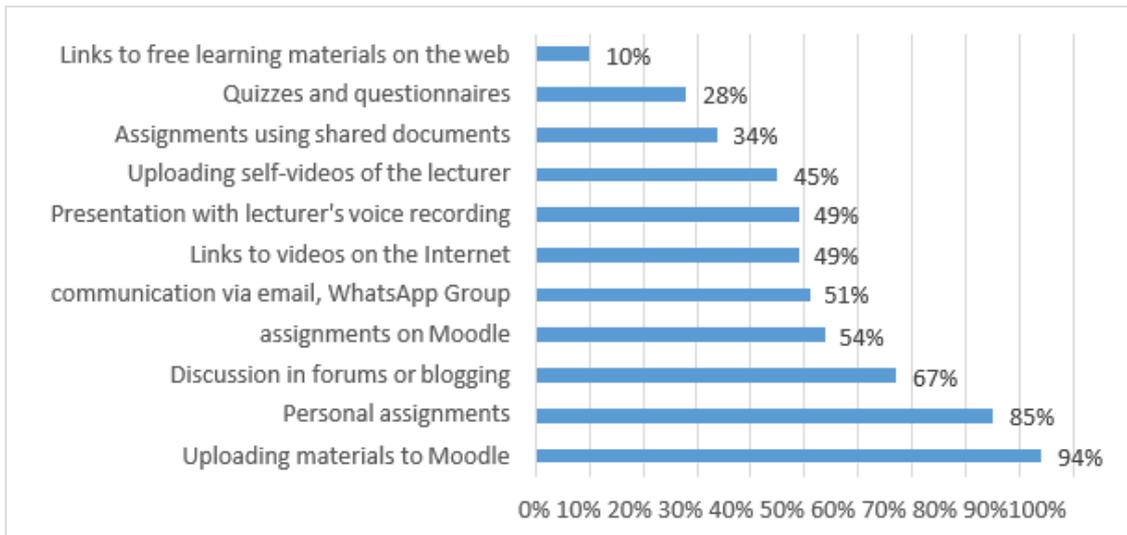
Figure 9: Tools and learning methods that were utilized by the lecturers in the courses students attended in a distant-online mode (N=518)

Results indicate that Moodle as a learning management system was quite useful to faculty, while external links were used to a lesser degree. Also, we can see that the course websites were mostly used as a depository. Still, a variety of tools were used for fully online distance courses, and the learning was indeed performed through the course website mostly.

Students were requested to indicate which tools and learning methods were utilized by the lecturers in the courses they attended online. Results are detailed in Figure 10. According to the results, synchronous lessons were most utilized by lecturers for students' learning. Also, various modes of learning on Moodle, the institute's learning management system, including files that were uploaded (e.g., articles and other references, presentations and self-videos – either recordings of synchronous lessons or pre-prepared recordings of the lecture. Other tools may have included external applications, websites or platforms utilized by the lecturer (e.g., professional repositories – either academic or specific for subject matters, quizzes and surveys such as Kahoot, electronic boards such as Padlet).
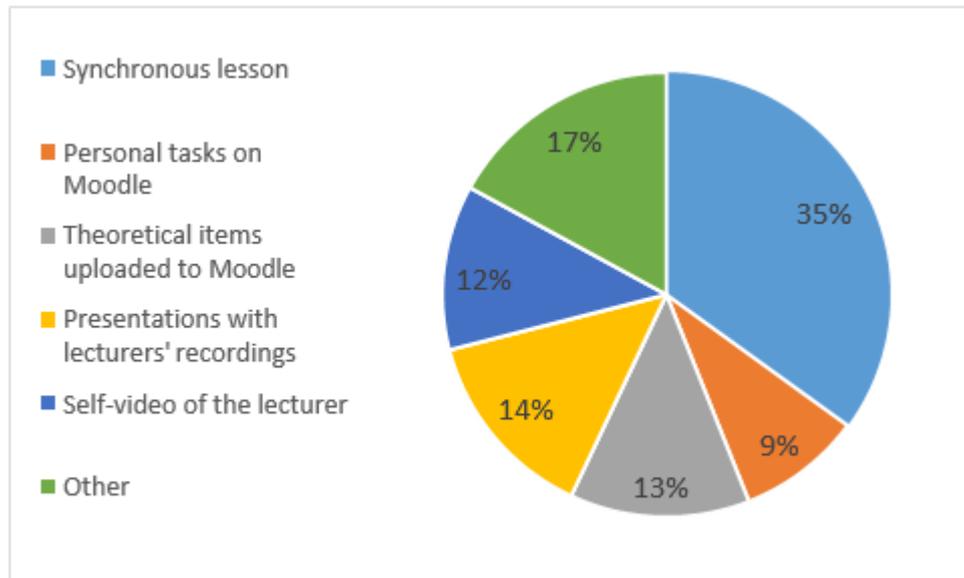
Figure 10: Tools and learning methods utilized by lecturers in fully-online courses (N=518)

Open-ended items revealed an array of explanations regarding the preferred tools and learning methods by students. Altogether, 752 responses were identified for the open-ended questions, of them Table 8 presents some of these responses.

The tool	In favor – representative examples	Against – representative examples
	n=167	n=136
	It's the way that most resembles a lesson in class, the response is direct, if there are misun–derstandings you can ask at that same moment and the lecturer's explanation is clear to everyone.	An online lesson occurs when the lecturer talks and we listen which makes the whole learning issue without cooperation and less interesting.
	Since you can see one another, also talk, it's much more humane and warmer, you can share content and the screen, and make discussions with several people through Zoom.	There were a lot of technical problems with Zoom (sound and video problems). There was response in real–time to students' questions, for better or for worse – it helped them but cut the thread of thinking for other students.
Synchronous lesson	Since we don't have a schedule because we're sitting at home, people like me who tend to post-pone everything open a gap that is difficult to close, and tasks are missed. There is a lecturer in one of the courses that gives a lesson in the time that	A synchronous lesson is inefficient, in my opinion. First of all, we depend on the quality of the Internet. If the Internet sucks, all the lesson is stuck and you can't understand or take notes. Also, it's tiring to sit for hours in front of the computer. We are in our homes and it's not an atmosphere
	it's scheduled. That's how I imagined the online learning...something in me wanted it.	for learning. In addition, all the time to be in front of the computer is straining for your eyes and for your back. At the moment the learning is not meaningful, boring. And I don't feel like I'm learning something, just handing in assignments, that's all.
	In the synchronous lesson we were divided into work groups (in rooms), that way we had a great opportunity for a fruitful discussion with my friends from the course.	Zoom – a lot of the time of the lesson is focused on technical coping. The lecturers do not master the application or software, and the commotion of the students creates a situation in which a one hour or more lecture us studies in 10–20 minutes at most.
	We had different Zoom meetings in a number of courses. I think it worked because the lessons were dynamic and the students were active, as opposed to a presentation where you're not a collaborator to these lessons, you only watch the lesson.	Synchronous lessons – unlikely to ask to have these lessons... when you have children at home and a household workload.

The Tool	In favor – representative examples	Against – representative examples
Presentation with lecturers voice recordings or self- videos	n=118	n=25
	I think it's the method that mostly resembles a lesson, in a way that you can see and hear the teacher, and also see the summaries together and what's written in the presentation he browses. And it's not [synchronously] online so it all goes smoothly, you open the video-presenta-tion whenever it's a good time for you, whenever I'm most concentrated. An if I didn't hear I don't stop everyone but rewind or fast-forward until I fully understand.	A presentation with the teachers recorded voice – the presen-tation was dreary, not well edited, too long, not well-organized, and caused more confusion and misunderstanding than a meaningful learning process. Also, it's hard to find your way around the parts of the presentation, so you can hear a part again or try to understand again what is said.
	A presentation and talking helps understand on different levels, there's a presentation with the concepts and the materials we're learning, and then there's at the same time the lecturer that explains all the additional information which is missing in the presentation, and that's how there is much wider understanding.	A presentation with voice-over a) I couldn't hear it, b) I could have read an article instead.
	The lecturer uploaded the presentation and recorded herself explaining the material. It was wonderful and educating, more than a frontal [face to face] lesson in my opinion! She did it in a way that was easy and understood, and the ad-vantage was that you could see the presentation again and again to learn the material.	The lecturers' recordings – a nightmare. Mostly the conditions of the recordings, voice and visual, are low quality, not attractive and not stimulating the attention, don'tletyoucontrolthespeedandadaptto the tempo and ability of different learners. it's a mistake that should be prohibited ASAP.
	Our lecturer sent us some self-videos in which she teaches, I mean, you can hear her voice and the explanations against the presentation which shows up together with the learning material, you can stop, summarize, go back to the learning materials, no disturbances in the middle. You can ask her [the lecturer] questions by email if there are any, and that way there are no ques-tions that interrupt the lesson. On the other hand, a lot of lecturers emphasize synchronous, which is inefficient and also disruptive and time consuming from our learning time at home.	When the lecturer records himself with video talking, it's even harder, because it's usually a video of one hour or more and it's really difficult to sit without doing anything in front of the com-puter and see a video that I should get something from it, especially when we don't really know the lecturers and their demands..."

The Tool	In favor – representative examples	Against – representative examples
Theoretical materials uploaded to Moodle	n=51	n=51
	Thanks to the materials uploaded to Moodle, anyone can enter in times convenient for him and study the topic and then submit an assignment that indicates for the lecturer where the students stand and if there is need to further practice the material. In addition, the materials uploaded to Moodle give the students some breath of air because we do not have to sit for a few hours in a row in front of the computer to prepare all the assignments and to read the materials because there is a week for submitting them.	When the lecturers overload with theoretical materials that are uploaded to Moodle. It takes a lot of time to go over everything and also lots of times you can't ask questions.as it is in every course there's mandatory bibliography and it doubles if not more the amount of materials you have to read...I find myself sitting at nights till the small hours to finish all the reading materials.
	In my opinion it's hard to understand explanations of lecturers through a camera, they are less open to hear questions and run through the material so that it's very hard to summarize them. Once there are written materials in front of your eyes the material stays in an organized way.	Theoretical materials – some lecturers send us to read long articles and from their point of view they've done their job, it's not a way of studying, it's laziness, there's no learning, no internalization. Also getting a presentation and learning on my own is not effective. I'm enrolled in the college so that you'll teach me, not so that I'll only teach myself!!!
	Videos or articles/pages from books that I'm required to read talk to me more.	An academic article, especially with new learning material, I don't have any idea what I'm reading and how I apply what I'm reading in practice, I mean it doesn't teach me anything if the teacher doesn't explain to me in more clear words that connect to the context.
	The independent learning with articles is very efficient, everyone learns alone in his own pace, the lecturer uploads a video or document to read and after reading or watching – to answer a question.	I was given an article and a presentation to answer questions accordingly, without any process of understanding and acquiring the information to help me understand the assignment. Throwing the information at us for sending assignments without giving space to a process of understanding. The presentations in lessons work less for me later because I couldn't really find them on Moodle and also because it's boring to look at written presentations.
	Through uploading content to Moodle, you can learn the material and that way you can plan ahead assignments for submission in the best way, because the presentations were clear, at least most of them, and included explanations and examples in a way that it was possible to apply in practice submissions and planning of lesson plans/exams.	There are lecturers that send articles and assignments without a clear explanation, without a discussion that gives direction. This causes confusion among the course members and a flooding of messages and responses towards the lecturer. Everyone receives a response, this is why the understanding is unclear. I think that it is best to transfer the material in a clear and respectable manner. Reading articles and answering questions I can do also without the lecturer but this is not a way to teach a whole course.

The Tool	In favor – representative examples	Against – representative examples
Personal assignments on Moodle	n=28	n=76
	Because you can work individually and in any time I see fit and not the lecturer is the one to decide on the hour of the lesson.	I think the least meaningful way [for learning] is assignments. It creates a huge overload that does not exist during the semester [in conventional teaching]. It's possible small tasks that focus on understanding the material, but there are some cases in which the assignments take a long time to do, not an hour and a half like a face-to-face frontal lesson and the experience turns to be difficult for learning and causes depressing... it all depends on the [lecturer's] good taste and the size of the assignment.
	The personal learning is important to me, inquiry, understanding and leaning are transferred wonderfully in personal assignments on Moodle in my opinion.	Another thing that doesn't work is the all the assignments that are uploaded just like that without any explanation in advance about the learning materials. I think that if you want to upload an assignment the lecturer has to upload a video of his, explaining the material, only then to give an assignment because just to write assignments doesn't really teach us anything new.
	Personal assignments help me understand the material we learn and to express everyone's [students'] understanding.	Lots of assignments without any deep understanding, just to mark a V, reading articles that do not contribute anything, only a small number of the lecturers are really concerned that we understand and most of them just send assignments to mark V and it's a pity.
	The personal assignment allowed me to complete the task in the time that is more suitable for me, and allowed me to deepen in it and understand the topic behind it in a way that is better and more high quality.	Giving a self-regulated assignment doesn't make sense in this case! Unless the teachers really check the assignment and return to us with feedback. What happened in one of the lessons after a short Zoom lesson and explanation of the questions. In this case it makes sense and better.
	For me it worked well, because for me personally to sit in front of a computer and to try and listen to the lecturer is terribly difficult, but if the lecturer gives materials to read or a presentation and then to do some work on Moodle, I managed to understand the material much better.	Assignment overload, it's evident that the lecturers give lots of assignments just to mark V, that they've "transferred" the material. Personally, I didn't absorb any information from the assignments because I also did it to mark V.

The Tool	In favor – representative examples	Against – representative examples
	n=53	n=140
	Group assignments: Learning in groups helped a lot because… if we experience it together it's easier, and also what I understood my other group members understood differently, that way there's brainstorming.	Group assignments: It's hard working in groups online. It creates indefinite communication between the group [members], double work, group members aren't synchronized, most of the work goes to one or two [members].
	Work with collaborative documents: Transfer of information in collaborative files is excellent, that way we can also get videos, also work together, and also get together all the time and not only in times that are set in advance.	Work with collaborative documents: We were divided into groups with a large number of students in which we were supposed to work together – it's difficult to work with so many students.
	Videos on the Internet: In this world there is lots of relevant and available information around us, which was prepared for providing us with knowledge that is presented in a way and a quality that is meant to fit our attention ability and works on many stimuli of the senses, using visual demonstrations that are well done. As educators we must use this progress for educational goals and to use this information and the likes for a basis for our lessons.	Videos on the Internet: When we send videos and links to information sources it's not always exactly what we learn and I think they should be more focused on the material we learned in class earlier.
	Communication on WhatsApp and email: This tool allows me to communicate with the lecturers personally and to get answers on specific questions. All other tools are also important and contribute to learning, but they are much less effective compared to studying face to face in the college, and this creates a difficult learning experience.	Communication on WhatsApp and email: A WhatsApp groups that the teacher opened works on all hours (10 PM or weekends) – everything is a mess and you can't follow.
	Quizzes and online questionnaires: I think the quizzes make us learn and deepen in the material. In all other ways I feel I'm marking V on the assignments.	Quizzes and online questionnaires: It causes stress and a feeling that you have to submit and get it right, instead of enjoying the learning process and reading calmly and without the pressure of what the lecturer with think of my outcome.

Discussion in forums or writing in blogs:	Discussion in forums or writing in blogs:
I think this tool is the best because it allows the student to go through a process of independent learning and develops the ability to write. In a blog you can see other students' comments and there's the option of commenting and managing a discussion in a forum relating to the comments.	This is actually the easiest work for the lecturer and chewing of the existing material of the students among them. I'm fed up with asking us to comment in a forum on other students'' comments!!! It's not effective and mostly not interesting because we just do it out of duty because it doesn't interest us.

Table 8: Sample of open-ended questions (N=752)

To sum the findings presented in Table 8, students that are in favor of synchronous lessons are those who prefer face-to-face, direct interaction, asking questions and immediate assistance. Students who prefer individual, offline assignments emphasize the effectiveness of working individually and being flexible in times. Some students favor tools that include presentations that include theoretical materials along with an accompanying video or audio of the lecturer.

However, many students indicated that the synchronous lessons are not effective, due to technological problems, the large number of participants and additional challenges, including lack of physical space for learning at home. Students complained that lecturers upload long and exhausting articles and other references, or unclear assignments, without a teaching stage or effective feedback. Also, some referred to the ineffective nature of collaborative assignments, in which often only a minority of students is actively involved.

The data shows a complex situation in which the diversity of preferences among students as well among faculty (e.g., the utilization of different tools) is evident; more regarding faculty in section 5.3. Naturally, the data focuses on students' perceptions, which does not mean that in actual fact this is the case. However, this may indicate a general feeling of distress towards online distance learning, which is currently still considered not mainstream. Still, these open-ended responses may point to a need for a variety of tools and teaching methods in order to respond to diverse needs. It may also indicate the need to characterize students in each course in order to best fit the course to their learning styles, preferences etc.

Students were asked in how many courses there were synchronous meetings, in which students "met" online at the same time. Figure 11 presents the distribution of courses with synchronous meetings.
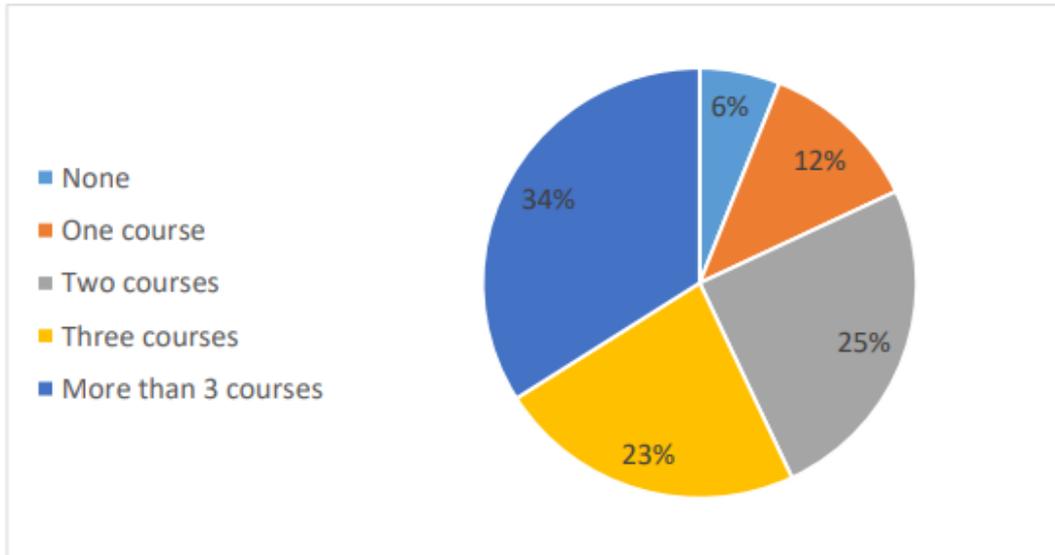
Figure 11: Distribution of courses with synchronous meetings (N=518)

Figure 12 shows that the vast majority of students experienced a synchronous component in at least one course, and more than 80% of the students experienced synchronous meetings in more than one course. Over a third of the students experienced synchronous meetings in over 3 courses, which indicates either the popularity of the synchronous component or the institute's policy to maintain the course framework and teach in the designated time slot.

Students were asked to indicate best their experience from the synchronous meetings they attended – they were requested to reflect on the meeting that was most meaningful to them. Results are detailed in Figure 12.
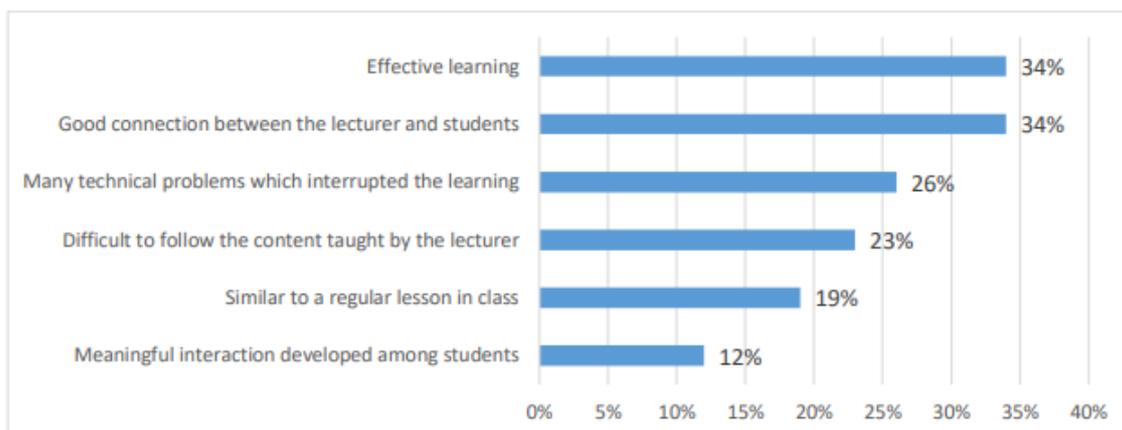

Figure 12: Most meaningful students' experiences from synchronous meetings (N=518)

Results presented in Figure 12 indicate effective learning and good connection with the lecturer experienced each by over one third of the students. Unfortunately, over a quarter of the students experienced technical obstacles which were perceived as interruptions of the learning process. Following the content taught by the lecturer was also difficult for about one quarter of the students. Also, the synchronous lesson was experienced differently than the face-to-face lesson, which is to be examined cautiously, since this can be either an advantage or an obstacle.

The hasty shift from face-to-face courses to online distance learning required examination and assessment of the process, therefore, students were asked to grade their experience, portrayed in 6 items, on a 1 to 4 Likert scale (1 being "totally disagree" and 4 being "totally agree". Figure 13 portrays the percent of students responding 3 or 4 to the items.
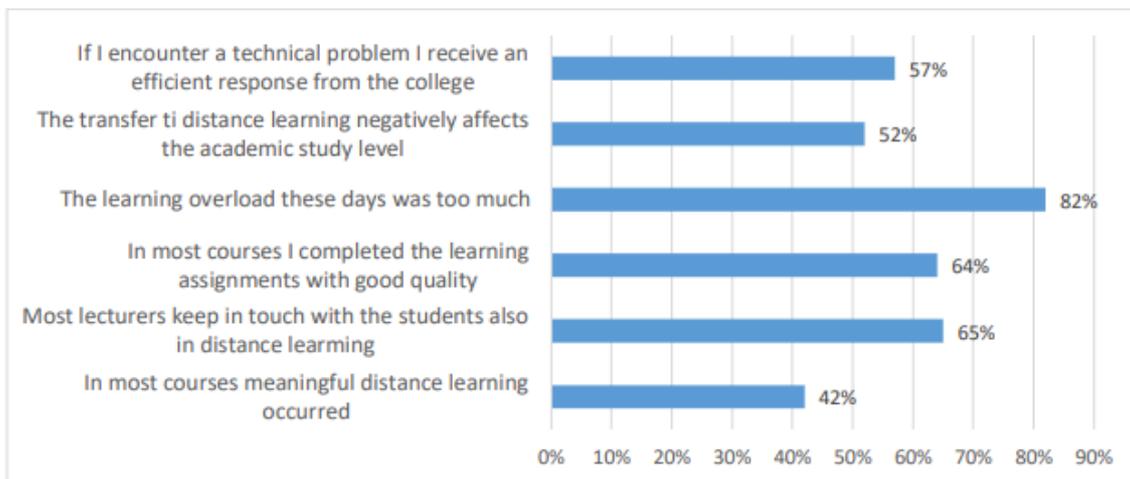

Figure 13: Students attitudes towards the shift to online distance learning (summary of totally and mostly agree) (N=518)

There is wide agreement according to the data that the shift from face-to-face to online distance learning created a huge learning overload. Less than half of the students indicated that meaningful learning occurred in online distance learning, and over half of the students indicated that this shift impaired the academic level of the courses.

At the end of the questionnaire students were invited to add general comments. These were categorized according to positive, negative and neutral responses. Figure 14 summarizes these categories.
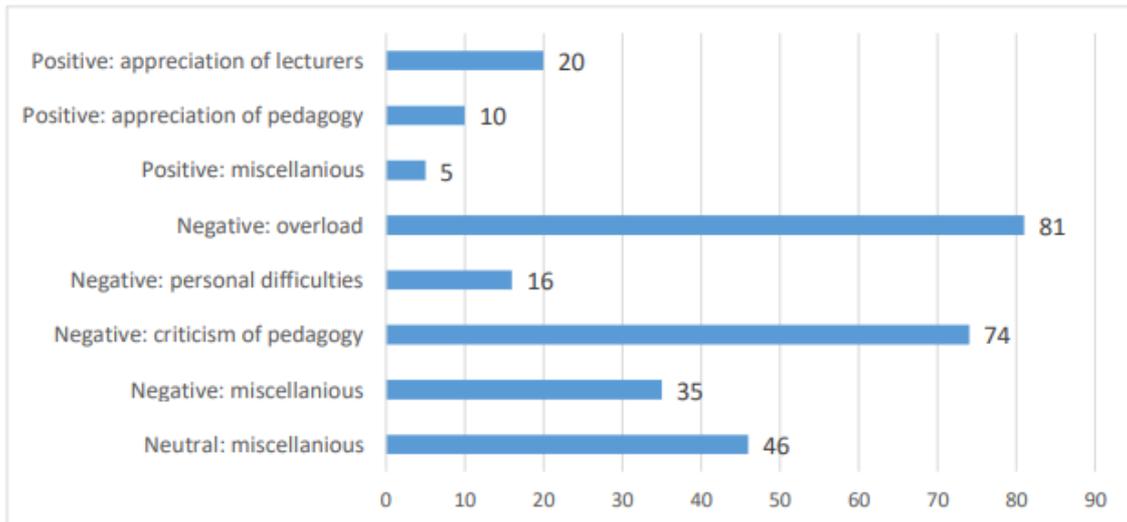
Figure 14: Distribution of responses to a general open-ended question (N=287)

Altogether, 287 responses were received, of them 35 positive, 206 negative, and 46 neutral responses. Positive responses, of appreciation of lecturers, for example, included reference to their professionalism, availability and usage of tools:

> "The lecturer that taught me in this semester use all the tools in order to promote the learning. They are professional, available, give feedback that promotes learning. They use all possible tools and professionally, and are experts in their field... At the beginning there was an overload of assignments, now there is a slowdown and it's helping me." (a student from the geographical periphery)

Negative responses that reflect on overload and pedagogical difficulties include reference to overload of assignments and pedagogical difficulties, for example:

> "A lot of courses are not suitable for online learning, and there is a significant damage to the learning. In addition, a lot of lecturers perceive online learning as a means of preserving the course sequence, and overflow with assignments that are built on personal knowledge of the students or directing to enriching videos that don't advance us in the materials of the course. That way, the students in fact lose the knowledge that they were supposed to learn in the course."

In addition, students referred to their personal difficulties, on several levels, for example: "Not every household has a few computers, and myself as a student with three sister students that also use the computer – there's a difficulty that we're all learning on one computer." Moreover, some students are older, married and with children, as portrayed in herewith:

> "The lecturers don't adapt the lessons to the program... in which the students are with small children, where some of the students are themselves teachers that themselves teach in an online-distance mode, and are insanely overloaded."

One of the students spoke frankly about her experience in online distant learning:

> "I would like to share with you that this period from the beginning of the semester until now I've been under a lot of pressure... so many... assignments... and we're flooded with a lot of material from the college, so we're not available for learning. In one of the forums we opened a conversation where all the frustrations came out about the learning methods and lack of sensitivity of the lecturers that send so much reading materials and assignments for the coming lesson. One insight that I was exposed to ... was that the lecturers that gave me assignment and allowed me to submit in my free time until a deadline helped me to lessen the pressure. Please I want to submit all the tasks – help me do it and not collapse or fail."

Neutral responses include contemplation about issues that online distance courses need to tackle in the future, such as the issue of assessment:

> "I'd be happy of the college would take into account the nature of the exam, I mean if there are courses in which we are tested as usual, my expectations are that the lecturers will change the manner in which they test the students and instead of the exam being 100% of the grade – to take into account some of the assignments as grades and to subtract from the final exam their percentage, in order to ease the final studying, because in some of the courses there are no lessons and we only submit assignments, so the learning is independent without any materials from the lecturer."

Hence, the major findings of the survey are:

- a. Online distance learning cannot be a replica of face-to-face learning.

- b. There is diversity in assessment of online distance learning by different students.

- c. The lecturers need to address different modes of learning, different populations and several needs.

- d. While shifting from traditional to distance learning, although this enables accessibility and availability to all students, HEIs need to take into account the danger of widening gaps between special populations and mainstream students; hence, inclusion and accessibility are not only the theoretical possibility to benefit from online courses, but rather considering obstacles of these unique sub-groups and responding accordingly.

3.2.2. THE SECOND SURVEY

Altogether, 352 students responded to the survey. Distribution was such that represented the different levels of HE in the college (e.g., undergraduate, graduate and teaching certificate). Also, when breaking down the different programs, we can see a distribution that represents all education levels, e.g. preschool education,

Elementary school education, secondary school education, special education with a special program focused on inclusion), and music education.

Students were asked to indicate the availability of resources for distance learning in their homes. Results are presented in Figure 15.
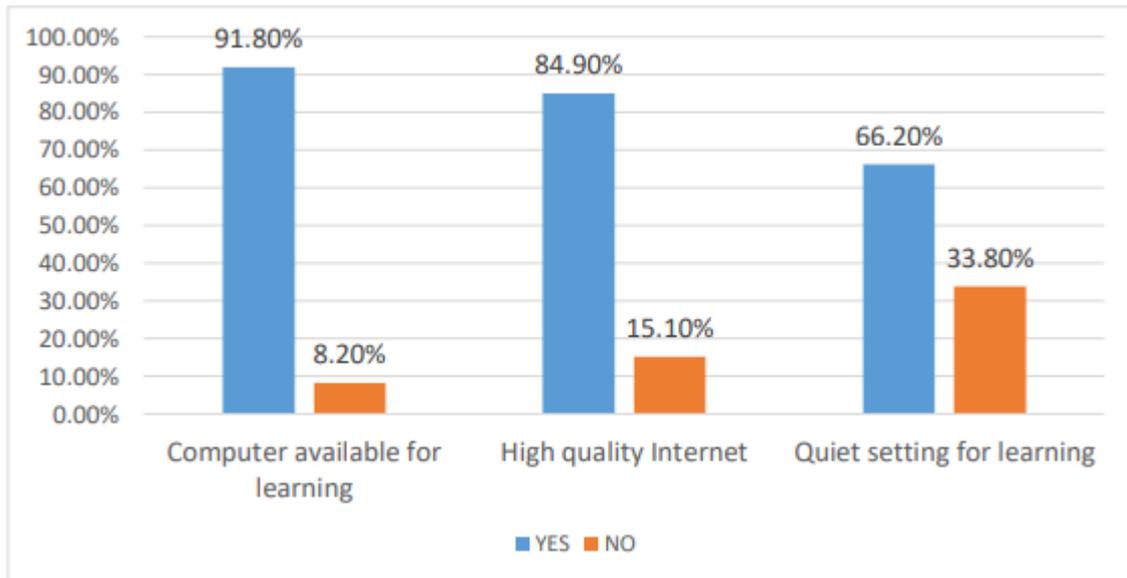

Figure 15: Availability of adequate resources for s=distance learning

Results indicate that while technology is available for the vast majority of students, as well as high-quality Internet, about one third of the students do not have adequate settings for learning quietly. The availability of technology in Israel is actually quite good; however, high quality Internet is not high-quality for over 15% of the students, and possibly the high-quality connection is via a smartphone. Still, the lack of physical conditions is worrying, even when technical conditions are fair: for students who find it difficult to learn in traditional conditions, this may crucial for their success in distance learning.

Students were requested to assess to what degree they perceived the learning in an online distant mode meaningful in three major types of courses: general courses in education, specialization courses in the various disciplines, and practical courses. Responses were rated on a Likert scale, 1 being totally disagree and 4 being totally agree. Table 9 presents the distribution of responses.

	1 – totally disagree	2	3	4 – totally agree	percent of 3+4	no response
General courses in education	16%	19%	24%	40%	64%	1%
Specialization courses in subject matters	20%	18%	25%	32%	57%	5%
Practical courses	21%	19%	22%	32%	55%	6%

Table 9: Percent of responses to the question "To what degree do you perceive the learning as meaningful and effective in an online distant mode for each of the following types of courses?" (N=352)

When examining the distribution visually, it is evident that the tendency in all courses is similar, see herewith Figure 16.
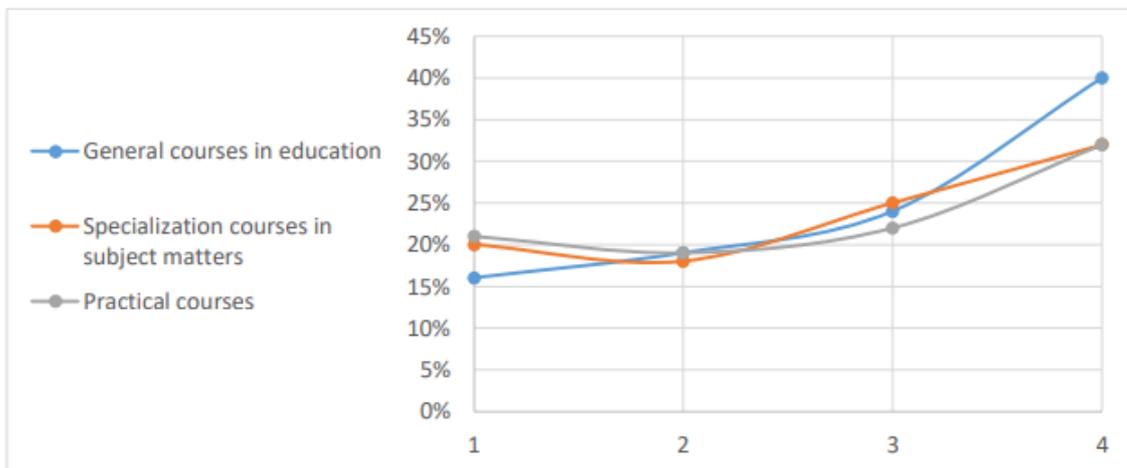

Figure 16: Distribution of responses to the question "To what degree do you perceive the learning as meaningful and effective in an online distant mode for each of the following types of courses?" (N=352)

Apparently, general courses in education are perceived as more meaningful and effective in an online distant mode that specialization courses or practical courses. this makes sense since practical courses are generally more in a workshop manner, and specialization courses are considered difficult courses by students in general.

Furthermore, three questions in this survey were repeated. In the first question we asked to rate the agreement to the following items:

- The learning overload is too much

- The shift to online distance learning has impaired the academic level of the courses.

- In most of my courses I've succeeded in meeting all the requirements and submitting high-quality assignments.

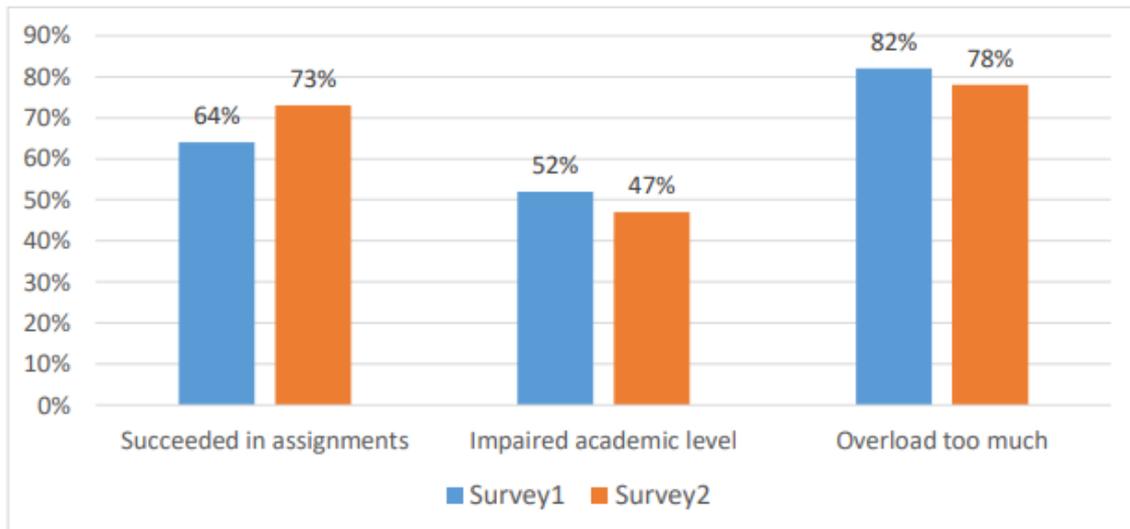Figure 17 summarizes the comparison between the first and the second survey

Figure 17: Percent of participants agreeing to the items (3+4 on a 1–4 Likert scale – comparison between the first (N=518) and second (N=352) surveys

Generally, results in the second survey indicate a slight improvement in students' perception, meaning that the extensive instruction and workshops for faculty have paid off. However, the overload of assignments is still evident, although students seem to cope. However, there are still those who fail to comply with the academic tasks – mostly the weak populations, which find it difficult to cope with distance learning. For them, this alleged opportunity for equity and inclusion is in fact a huge and challenging demand.

Respondents were asked to report on the number of participants in a synchronous lesson that was especially successful. Results are presented in Figure 18. As seen in the data, about half of the students participated in a successful synchronous lesson in which between 10–20 students participated, and less than a third of the remaining reported that the most successful online distant lesson included between 21–30 participants. Apparently, the optimal number of students in a synchronous meeting according to students is between 10– 30, reported by 78.7% of total number of participants.
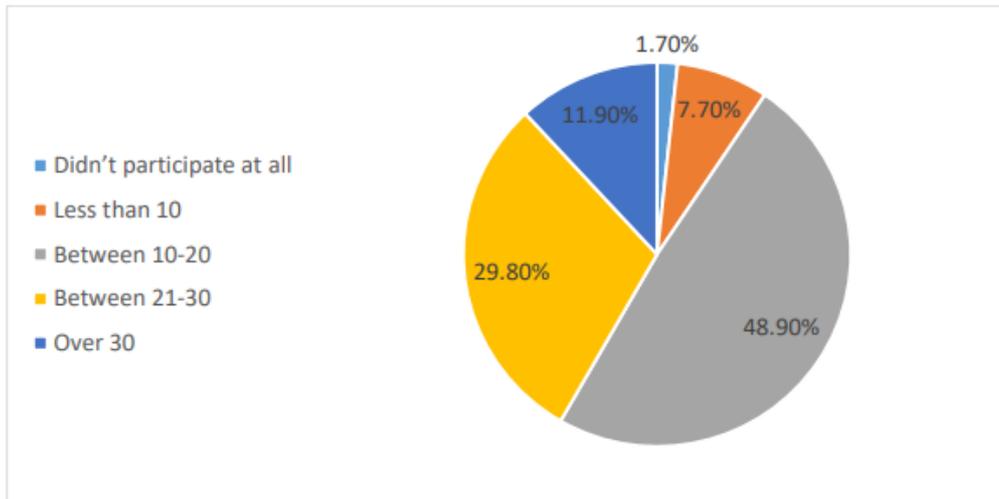
Figure 18: Number of participants in a synchronous lesson that the students recall as especially successful (N=346)

Moreover, students reported on the length of the synchronous lesson they experienced as successful. Over 80% reported that the lesson was between 40 minutes and 1 ½ hours, 14.5% reported that the lesson was over 1 ½ hour, and 2.8% stated that the lesson's length was less than 40 minutes.

Students were requested to refer to additional aspects of a successful synchronous lesson they had experienced. The following aspects were identified, as detailed in Table 10.

The item/aspects	No. of respondents agreeing	% of respondents agreeing
Most of the lesson was dedicated to a lecture (like a face to face frontal lesson)	247	70%
The students were active during most of the lesson	149	42%
A large portion of the lesson was allocated to discussion or questions and answers.	137	39%
During the lesson there was interaction among the students.	109	31%
The lesson included activation of the participants in groups (division into separate rooms)	94	27%
Before the lesson there was a need to study present materials for self-study.	78	22%

Table 10: aspects that were included in a successful synchronous lesson that the students had experienced (N=352)

The lecture paradigm seems to be the one that students can most relate to, since it gives them some kind of order in their academic routine, being similar to lessons face to face. However, results indicate the need for diverse pedagogical measures, in order to respond to needs of diverse populations.

To sum, the mere utilization of means for online distance learning does not create automatically a setting that promotes inclusion and accessibility of special, most times weal populations. If we are to assist these populations, this issue needs to be approached wisely, encompassing the needs of all sub–populations in–volved. Furthermore, the surveys were held in the HEI, hence, for populations that do not even reach HE, but may potentially be enrolled in academic studies, special and extra attention need to be taken.

3.3. LCE RESULTS – FACULTY INTERVIEWS

Altogether, 12 interviews were conducted with LCE faculty who are involved as position holders or lecturers in the inclusion of diverse students' sub–populations. These lecturers reported experience with many types of special needs, their perception on the meaning of the term "special needs" and the ways to tackle these needs. Herewith we present the major categories of our analysis. One of the interviews was omitted finally, due to technical problems in its recording.

The table herewith presents the disadvantaged populations alluded to by the interviewees. Fourteen different categories were found in the interviews, portraying the different populations the interviewees have had ex–perience with.

No. interview	1	2	3	4	5	6	7	8	9	10	11
Immigrants	v				v		v		v	v	
Arabs	v	v	v		v	v	v	v	v	v	v
Ethiopians	v	v	v		v		v	v	v	v	v
ADHD	v			v		v	v	v	v	v	
Hearing impairments	v						v				
Sight impairments	v			v			v				
Ultra-religious	v		v	v			v	v	v	v	v
Learning disabilities	v		v	v	v	v	v	v			
Emotional difficulties	v			v		v	v	v	v	v	
Financial difficulties		v		v		v	v	v		v	v
Geographical periphery				v					v	v	
Illnesses (Diabetes, Krohn, corona, etc.)	v			v			v				v

Table 11: target populations mentioned in the interviews

3.3.1. CLASSIFICATION OF SPECIAL NEEDS

Faculty referred to a wide array of special needs. In fact, they even questioned the mere classification, since the viewpoint of some of the faculty states that all students should be classified as having special needs according to the inclusion's paradigm:

> "My perception is that anyone has the special need in his place, no matter if it's an Arab who had difficulty to express himself in Hebrew or an Ethiopian that has social difficulties. Everyone... has special needs... and we at Levinsky cannot overlook or miss it. The differential teaching is meant to produce better teachers and it is essential from our point of view." (E.S.)

The mere term "diverse" seems to need further clarification, as phrased by one of the lecturers: "Excluded [populations] is a matter of personal point of view, but I did teach them all: I taught ultra-orthodox, Arabs and Jewish populations from low socio-economic status." (S.B.) However, there is recognition in the diverse nature and the variety in students attending LCE, whether in undergraduate studies or in programs for career conversion to teaching:

> "The population in the college is extremely diverse. We have newcomers from several countries: from Arab countries, from Ethiopia, and people with special needs on a wide spectrum: attention disorder, learning disabilities, hearing impairment, visually impaired. We had different types of cerebral palsy... many disabilities." (D.H.)

One of the interviewees is himself visually impaired' hence his emphasis was on students with disabilities and special needs:

> "... visually impaired student... student populations with learning disabilities and attention disorders. Occasionally I had in my courses students with other deficiencies: hearing impairment, physical disabilities, mobility in wheelchairs, students with different levels of cerebral palsy and cognitive deficiency." (I.H)

The nature of the special needs of LCE students was described with different emphases by faculty members, either based on their personal teaching experience or on their private knowledge and closeness to certain populations. The general notion is that there is a wide array of special needs, which needs to be taken into account and addressed when teaching (either face to face or online).

3.3.2. DIFFICULTIES OF ONLINE DISTANCE TEACHING AND LEARNING

Online distance teaching and learning has penetrated our academic lives abruptly, without much time to adjust. However, difficulties arise at all times regarding online teaching and learning. Specifically, populations with special needs include students who are recognized by the college as having learning disabilities, as the head of the Center for Students with Special needs illustrated:

> "The regular online learning is not widespread, so students that get lost come to me... in the evenings or between courses... and say: HELP! So we sit in front of the computer, open the course, write exactly what's happened and learn from it... first we put out the fire then we go forward to work strategies... The connection is kept through email or instant messaging once a week, I send a message: How's it going? Lots of times we send an email to the lecturer saying: There's a difficulty here and there... we also teach the students self-advocacy, to say: this is my problem, I have difficulties in 1,2,3.... This creates a tighter bond between the lecturer and the student and eases the process. The personal connection is very meaningful." (D.H.)

The distance is thought to be an advantage for students when learning in fully-online courses, since students from the periphery are supposedly equal to others in learning opportunities. However, in fact they encounter profound difficulties:

> "I taught in Eilat [the most distant southern city in Israel], and in my courses there were... cultural [difficulties], I don't know exactly what to make of this... especially in fully-online courses, for students who participated in these courses with [students from] the Tel-Aviv campus. Some required adaptation also... cultural and language-wise, and the expectations regarding the connection with the lecturer were somewhat different." (S.H.)

The cultural aspect is also evident with regards to religious aspects, as portrayed herewith concerning the ultra-orthodox sub-population, especially the women:

> "Among the ultra-orthodox population there are many disadvantages, because we all the time have the dilemma of how to teach from a distance. In recent years the ultraorthodox students already have the technological means such as a smartphone – a lot of the time they have two [mobile] phones, one regular to show in the neighborhood, to go around with a Kosher[1] phone, and one the smartphone, because they see and understand that they have to develop nowadays... but there are still many students that don't have it. And not only that, I take care of a few students who don't even have a computer at home. I'm not talking about Internet... I instructed the lecturers [in my program] that regarding the students who do not have a computer, or Internet, to contact them by phone, to give them the assignments... the situation in this population is... the technology is not there because of ideology, or because of religion, I mean it's because their way of life, it's not only that she doesn't have money for it. It's because her belief or society or the culture where she is do not allow her the technology. So in these cases we really have a problem and a dilemma." (T.S.G)

---

[1] Approved by the rabbinic authorities.

The cultural-traditional aspects are evident also in other sub-populations:

> "I had a student... Ethiopian, who had a lot of difficulties, and she was religious, not ultra-orthodox but religious... the type that she didn't have social networks. But I teach courses that implement technology, so... for religious reasons she wasn't connected to social networks... not with all of them I see this, but there is a large Ethiopian population at Levinsky... some need additional assistance."

From the lecturer's point of view, approaching needs of diverse students is stressful and time consuming, creating an overload of work:

> "This [fully-online courses] is more work for the lecturer himself, because when you're in a face-to-face lesson... there is something more flexible... in an online lesson something in this two-dimensional array... I need as a lecturer to activate much more the senses, I have more visual stimuli, I see myself and I see the students, I also imagine the students, I also see in the background the students' families sometimes. You suddenly see their homes and get much-much more information, you process a lot of information simultaneously and you also need to provide information and not to forget to connect the people in the group. This is something you need to remind yourself on Zoom, that the communication is distant. In order to allow them [students] to talk with one another, things that come naturally to me in the physical space, here I have to prepare." (E.S.)

One major challenge to online distance learning, which is especially evident in weak populations, is the technological challenge.

> "The technical stuff, OK? Suddenly you can't hear, or others cannot hear you, and for students with learning disabilities this is especially stressful, even more than for other students. There are all kinds of technological challenges." (E.L.)

While online distance learning is spreading in HEIs, in fact there are several challenges that the academic world needs to address, ranging from technological ones to social and affective ones. All need to be tended with special care when referring to special populations.

3.3.3. ADVANTAGES OF ONLINE DISTANCE TEACHING AND LEARNING

Still, even in these extreme COVID-19 pandemic circumstances, faculty reported advantages for them as lecturers and consequently for their students.

> "The advantages are flexibility in time and geographic space... parents to children, working students, it makes it much easier. People that live far away... for example, I have a group from Naharia, Shlomi [northern cities], so it's very convenient that they don't have to attend. The possibility to see something again, to read in leisure, to enlarge the letters on the computer, to look up in the dictionary, to be assisted by a friend, family, a students' WhatsApp group... students who do not stand out in class, that are afraid to express their opinion, that suffer from low self-esteem because of someone dominant and powerful in class. They have the space, then time, to write, to express their opinion. Also the accessibility to the lecturer, he [the student] can use email, phone, while in class you sit in one group and do not succeed in reaching the lecturer... I for example give weekly tasks with a grade and feedback, so if you're persistent and study, get a good feedback, a good grade, it makes you feel good." (S.B.)

The need for redesigning the teaching and learning is evident and necessary, in order to achieve effective outcomes: "I really think that this [online courses] makes me be creative... it makes me think of things. For example, next year I plan to use... pre-recorded lectures." (S.H.)

At times the online learning opportunities serve for scaffolding learning processes, thereby ensuring better learning for special, sometimes weak populations.

> "It [online distance learning] is at many tomes an advantage for weak populations, because it takes them more time to internalize the material. So they have the time to do it. They can ask me questions over the week if they want, they can contact me whenever they have problems... sometimes it's deeper learning, because they engage more in the material... in online synchronous learning, for example... they feel more comfortable to ask questions, they are more anonymous than in a regular lesson. And it's good for them... because they don't have to identify themselves in a synchronous lesson. I see them, but this doesn't mean that others know who it is... because of the chat, which happens a lot it a synchronous lesson, they see that others have the same questions. And it's good, it backs them up. It's also that there's no sitting in front and in the back, everyone is the same distance... When it's face to face, sometimes they sit in the back [of class] far away, and that way they hide so I won't see them..." (M.H.)

The possibility for equity lies even in the sitting arrangements: while every one of the students is in a Zoom square in a synchronous lesson, there is no front or back of the class, where in many times students who are struggling with the course find their place, so as not to be exposed.

To sum, there are advantages to online distance learning, mostly in terms of the opportunity for equity and learning opportunities, as well as access to various learning materials and learning methods that are adapted to this new learning mode, which facilitates equal opportunities for excluded populations. However, the some

of the opportunities could lash back. If there is insufficient infrastructure, or if cultural or religious background is not considered, then a digital gap may develop.

3.3.4. THE SHIFT TO ONLINE DISTANCE TEACHING AND LEARNING

The hasty shift as a result of the COVID-19 pandemic had caused faculty members to reflect on their teaching and adjust to new teaching paradigms.

> "These is great advantage. One of the advantages of online learning is that it makes you think again. I mean... we were on automatic [pilot] – suddenly I look at it differently. And something that when I'm in class seems understood in two and a half minutes, suddenly I have to think how to teach a little different. I can really see it now with the students[2], when we prepare the lesson plans... things that seem to us understood suddenly seem complex..." (M.C.S)

Another angle of advantages of the shift to online learning is the long-term impact foreseen by many educators, as stated herewith.

> "We see it especially in these times... conferences and other activities which flourish online, which would not have taken place this way, because suddenly we all know how to use it and I'm sure that after COVID-19 will leave us we will benefit. So the mere usage of tools is a benefit... including all technological components and beyond that – what we can do with them... to show a video clip from a movie, to hear music, to visit a museum and to search libraries as part of the course, and to see what research is saying and to contact the person we saw a minute ago online... so there's a whole new world. Not to speak of starting to use more active tools in the course." (O.M.)

The online COVID-19 era is evidently challenging, with an expectation that this new world is here to stay, according to faculty members. Hence, the point of view expressed in the quote is that of identifying the advantages and new merit of this ongoing online distance learning. However, there were several challenges in this hasty shift to distance learning that faculty found it difficult for the students to cope with, for example:

> "The self-regulation or self-discipline of the students. I feel that when they work online, those that lack [these traits] I lose them faster. When I see them in class I manage to arouse them with motivation and tell them – and remind them every time – don't forget, you have to submit. It impacts then emotionally and, in their

---

[2] Being preservice teachers, students were also forced to conduct their practice in schools online.

motivation, when I say this face to face more than when I write them an email... motivation leads to self-regulation... so generally this is missing in online courses."

According to lecturers, the habit of distance, online learning needs to be developed, in terms of pedagogy, but also in terms of affective aspects. We are still in a transitional era, where this mode of learning is examined for advantages and flaws, and higher education faculty are contemplating the necessary steps to make this mode of learning more effective.

3.3.5. FINDINGS ACCORDING TO SUB-POPULATIONS

We herewith bring data according to sub-populations, since the versatile nature of the Israeli society highlights also a variety of circumstances – some vary greatly between populations.

3.3.5.1. ULTRA-RELIGIOUS POPULATION

Access to Technology

The interviewees that refereed to this population noted the lack of technological equipment such as computers, smartphones and iPads, equipment which is essential for distance learning.

> "Some of the ultra-religious students do not have computers, and this places them behind others. Some of the ultra-religious female students have very limited access to technology and the Internet, and they require the Rabbi's permission, or their husband's permission, to use the phone and the computer." (4)

> "The ultra-religious students have no internet connection, and often have no computer at home. This is extremely difficult. On one of their holy days we scheduled an online lesson because they couldn't come to the campus. Delivering a lesson, having them answer, read and do assignments was almost like science fiction." (10)

> "There are a lot of problems with the ultra-religious population, so we have a constant dilemma about using distance learning with them. In the last few years some ultrareligious students have smartphones, a kosher one which they use in their neighborhood and a smart one to use with the outer world [...] But some do not even have a computer at home, not to mention an internet connection. I tell the lecturers to give them the assignments on the phone." (11)

Lack of Academic Experience

Ultra-orthodox women do not have vast academic experience, if at all; if they study, it is mostly basic skills, and in the Hebrew language.

"They [Ultra-Orthodox women] have more difficulties in learning because they do not have much prior knowledge. As far as English is concerned, the acquisition of English is far more difficult for them." (3)

Two subject areas that the ultra-religious find extra difficult are math and English. In English, their level is very low. So I constantly hear about these courses, because they find them difficult. So I ask the lecturers to give more support and more explanations." (11)

Undiagnosed Learning Difficulties

Due to the limited academic experience, identifying special needs is complex, and is at times overlooked. In the ultra-orthodox community, the awareness of parents and teachers of learning disabilities is lower than in the general population. This may cause frustration and a feeling of incompetence and low self-efficacy.

"If they need learning adjustments, they come to us. We often help them find out about the adjustments that they need because there is less diagnosis of learning disabilities in this population. Religious women have less time for themselves, so they are not diagnosed, and it takes them time to figure it out." (1)

High motivation

In spite of the many difficulties and obstacles, ultra-religious students have high motivation for achievements. Still, factors such as family needs hinder their learning.

"For example, they used to bring their babies to the classroom, and that was ok, it was a part of the whole thing." (3)

"They need the bachelor's degree because it is a stepping stone to the future. They really do want to make progress, so they put their heart and soul into their studies [...] they have high motivation and a sense of mission because their families paid a lot of money, and their extended families do their best to help with the children. (11)

The need for personal support

The online distance mode of learning is new and unfamiliar to ultra-orthodox students, especially female ones that learn in ultra-orthodox seminars for teachers; they then turn to LCE for supplementary training that awards them with a bachelor's degree. This shift from learning basic pedagogy to studying academic courses, in addition to the online mode, is overwhelming.

"I was told to teach the religious women asynchronously because they are overwhelmed. I did that for a couple of weeks and it felt wrong. It felt like they were not

okay. So I sent them a message and invited them to a zoom meeting, and I wrote that the meeting will be recorded and I will send a link to those who can't join or don't have zoom [...] It was the right decision. The meeting was very successful and comforting, and I always leave my phone on so that they can call me and talk to me." (8)

When I am in the classroom I can see the students, talk to them, hold personal meetings, but with the ultra-religious students these meetings do not take place. There is distance learning, but without zoom. We don't actually see them, there is no live online connection, so it's completely different." (11)

The ultra-orthodox students also need a teacher who is aware of their needs. This goes together with small groups, specialized groups." (3)

Cultural accessibility

The lecturers are usually not fully familiar with the unique characteristics of the ultra-orthodox subpopulation; therefore, misunderstandings may be quite common. Here are some examples.

"One of the things lecturers need is guidance. For example, during the corona crisis many lecturers gave their ultra-religious students assignments before Passover. Passover is a time of mental exhaustion for many religious women, stuck at home with 5, 6, 8 children and having to clean the house." (12)

 "With the Arab and ultra-religious populations, I would insist on a face to face meeting. I am not sure why, I need to think about it, but my gut feeling is that especially for them the face to face meeting, the meeting of the religious world and the secular world, inclusion within society, is important and cannot be omitted." (8)

"If they use zoom, they sometimes feel uneasy about asking a question, because it is an entirely different situation for this population which is unaccustomed to such communication and find it alien and new." (11)

3.3.5.2. ARAB POPULATION

The Arab students at LCE constitute a minority of the student population. Moreover, these students study in regular mixed classes within the college, as part of the bachelor's and master's degrees. Some programs include a greater percent of Arab students, for example, the master's degree in Linguistic Education in a Multicultural Society, due to the nature of this program. The following content areas recurred in the interviews.

The linguistic barrier

Although Arabic was – until about a year ago – one of two formal languages in Israel, and now a language with a special status, still, LCE's graduates are intended to teach in the Jewish sector, therefore the formal and only language of teaching in the college is Hebrew, apart from the English department and mandatory English for academic purposes courses. This causes difficulties for students from the Arab sector.

"I see the Arabic speaking population as having more difficulties in reaching us, completing tasks, attending lessons [...] the language barrier as well as time management is often difficult for them, because they have to work while studying." (2)

"In the Arab sector we have two different levels. Some have fantastic English be-
cause they attended private schools, and the others who attend the state schools
are like the other students but they have more problems with speech. They are also
younger because they are not enlisted to the army." (6)

"Distance learning is difficult for those whose mother tongue is not Hebrew." (5)

Academic achievements

Academic achievements among Arab students may be lower than those of their fellow students. Moreover,
they sometimes lack the skills for managing their academic lives, which causes them to miss assignment sub-
missions, or encounter difficulties when logging into the course website.

"The Arab students very often receive lower grades; I can tell you that throughout
the years this has certainly been the case." (4)

"I have had many problems with the Arab students, some did not have a computer,
did not have internet access, some were not registered, did not know the due dates
for the assignments. Some also had problems with time management." (10)

Personal issues

The home culture of the Arab population is traditional, while the academic world is somewhat novel and non-
traditional. This causes a clash between the two worlds: the personal and the academic-professional.

"In addition to the teaching there are also personal conversations intended to sup-
port them. I call them up, some of them every day and some once a week [...] I find
that this personal connection is extremely important with this population." (5)

"Some students, especially from the Arab population, are experiencing domestic
abuse, with sons and husbands hindering them from learning." (4)

"There is someone in charge of the Arab population, and someone in charge of Ethi-
opian students, a kind of liaison. The new immigrants are also entitled to help from
our center. We refer to a psychologist, which is free of charge in our college, when
we see the need." (1)

Lack of support for Lecturers

Lecturers seek assistance when teaching Arab students, but apart from a coordinator for this unique popula-
tion, no assistance is offered.

"I have never received any guidance about special populations such as Arab students. I really think this has to be done." (11)

3.3.5.3. POPULATIONS WITH FINANCIAL DIFFICULTIES

These may consist of several sub-populations which are also lacking financial abilities that are essential to routine student needs.

"In low socio-economic populations, sometimes there is only one computer in the house and it doesn't always work, and sometimes they [students] are asked to turn on the camera but the physical space is shared with three siblings and he doesn't feel comfortable with that." (2)

"Students with financial difficulties and social difficulties, for example an ill parent, a sister with special needs etc…, they are emotionally overwhelmed and it affects the quality of their learning." (2)

"Some students are working and have families, so they find the online courses very overwhelming." (6)

"We discussed geographically underprivileged populations, but we did not discuss students who are peripheral because they are socio-economically weak. As lecturers, we need to be flexible with time because these students work and have children to feed." (11)

3.3.5.4. GEOGRAPHICAL PERIPHERY

Peripheral students may have different viewpoints on several topics, due to their upbringing in rural areas. This may be an obstacle but also a source of strength.

"The periphery is unique […] It is not just an area that need support. It is also an area that can fertilize other areas. So if I have a student from the periphery I will support him so that he can take my insights back to the periphery and eventually return with his insights to me." (2)

"Students from the geographical periphery often need learning adjustments, espe-
cially in the cultural aspect, because the language and the expectations from the
lecturer were slightly different." (9)

3.3.5.5. LEARNING DISABILITIES

LCE offers students with learning disabilities (LD) support in the form of a center that caters to all needs, aca-
demic and emotional, during their studies. The center diagnoses these students and ensures that they receive
learning adjustments such as extra time for examinations, use of computers, software for special needs, etc.
In some courses, such as academic English, specialized groups of students with learning disabilities are as-
signed to special groups, whereas most courses are inclusive and have mixed populations.

Support and Rapport

Students with special needs are highly acknowledged at LCE, once they are diagnosed and formally recog-
nized by MEITAR, the unit that offers them support.

"I really enjoy teaching the learning disabled because they are highly motivated,
probably because of their difficulties. Many students with difficulties are more
highly motivated. If you give them...well, it works both ways. You can ruin their mo-
tivation or you can reinforce it." (3)

"Learning disabled students receive personal mentorship and guidance." (9)

"It is very important for the course and the group to be adjusted to the students'
needs. In the case of learning-disabled students, the group as well as the course has
to be adjusted. This goes together with small groups, specialized groups." (3)

Aspects of distance learning

Most lecturers perceived distance learning as more challenging for students with learning disabilities, on sev-
eral levels: technological, practical and pedagogical.

"Some students simply cannot learn from a screen. They cannot. This could be rel-
evant students with ADHD, and you must keep that in mind." (8)

"The learning disabled need focus, and focusing in distance learning is more difficult
for everyone. The LD students need the personal approach, the peace and quiet, the
concentration, more than the general population of students." (3)

"Even if you are a great teacher, you cannot expect everyone to focus, and you don't
really know who is concentrating and who is not. In the classroom, students are
more focused." (3)

> "Students very often feel that they are getting too many tasks in distance learning. We can't expect them to listen for an hour and a half and then do the exercises for another hour and a half." (6)

Some lecturers, however, saw the advantages of distance learning for these students:

> "Students with learning difficulties cannot focus for an hour and a half because of the lecturer's high register, noise, a smell, a thousand different things can prove disruptive. In distance learning they have time, they can watch the lecture again and again, do things slowly, check things, get some advice...they are not stressed out because they have the entire week." (10)

Physical Disabilities

The advantage of online distance learning for physically disabled students is of great potential. First, the Moodle platform in terms of accessibility is adjusted to several types of physical deficiencies, e.g., visual impairment – however, lecturers need to be aware of this. Secondly, mobility of some physically disabled students is limited – by going online we are actually helping them avoid this need in face to face lessons.

> "I had a sight disabled student, but I didn't know she had a disability because she worked from home and adjusted all the texts to her needs using the apps she had at home. When she showed up for the exam I realized that she was almost completely blind and the exam was a real disaster." (4)

> "The online course has to be physically and culturally accessible, for example for deaf and blind students." (7)

Personal / Family issues

Many students have personal difficulties, and often reach out to the lecturers about these issues, usually requesting some adjustment in the deadlines for different projects. Students who are experiencing major difficulties are referred to the Dean of students at the college.

> "We have students who have problems at home, and some of them even want to quit college due to these problems. For example, I had a student whose father was very ill last year, and she wanted to quit, but I met with her and we talked about how we can make it work. The dean and the support center for students were very helpful." (3)

> "I am constantly in touch with the Dean of students and his aide in order to deal with lots of personal issues. For example, we had a student who fell ill with corona, she and her husband were sick and needed help." (11)

Gender issues

Since most of the students at LCE are female, most responses relating to gender focused on women.

> "One of the things lecturers need is guidance. For example, during the corona crisis many lecturers gave their ultra-religious students assignments before Passover. Passover is a time of mental exhaustion for many religious women, stuck at home with 5, 6, 8 children and having to clean the house." (12)

> "The most disadvantaged group now [during the closure of educational institutions due to the corona crisis], from my experience, is made up of mothers with young children at home. They are experiencing extreme stress, some of them cannot function and even the best and most accomplished female students caring for children, fail." (4)

> "Some students, especially women from the Arab population, are experiencing domestic abuse, with sons and husbands hindering them from learning." (4)

Emotional difficulties

Recent events, especially the COVID-19 pandemic, have added yet another layer to the complexity of online learning. For those students with emotional difficulties prior to this semester, this situation is constant and ongoing, including aspects that hinder their learning.

> "Many students suffer from stress, mental pain, depression, anxiety, obsessive thoughts, difficulty functioning, or functioning only on antidepressants." (8)

> "There are many students who lack the basic ability to ask for help. They cannot self-manage, so you send them help but they do not use it. Ultimately, your hands are empty." (9)

> "Some students are shy during the lesson, they are afraid to speak out, they have low self-esteem, especially when there is someone authoritarian in the class. In distance learning they have the space and the time to speak their minds. If they have access to the lecturer they can text her, or email her, which is impossible when you are sitting in the classroom and cannot reach the lecturer." (10)

> "Many female students have spoken out about sexual abuse in childhood. This is not a regular program. I refer them to the Dean of students and his aide and I am in touch with them on a daily basis. Many students are pregnant, many gave birth, last year two students gave birth to babies with down syndrome. These students need sensitivity and support." (11)

Immigrants and Ethiopian students

Israel is an immigrant country; however, they have certain rights for a short period after their arrival, which may be insufficient when referring to academic abilities in a new country with a new language and culture.

> "Some students who are immigrants but do not receive support from the Ministry of Immigration receive academic help from us. They are not always entitled to personal tutors, but if it is at all possible, they receive them." (5)

> "The issue of language is a cardinal one. Students whose mother tongue is not Hebrew are finding learning more difficult and their achievements suffer as a result of this. Cultural differences also make high achievements more difficult to obtain." (7)

> "I wish to differentiate between intelligence and knowledge, because many students have deficits in knowledge. For example, some of the Arab students and the Ethiopian students, almost all of the female religious students, they simply come from a different background." (8)

3.3.6. SUPPORT FOR ONLINE DISTANCE TEACHING AND LEARNING

LCE offers different types of support for students and faculty in their shift to online distance learning regarding special populations, in order to emphasize the advantages of this mode of academic learning. First, LCE acknowledges the need for faculty training, as portrayed by one of the coordinators of special populations, in charge of the ultra-orthodox program:

> "Faulty training at the beginning of the academic year, and also I'm in constant contact with faculty members all the time, because we have a lot of dilemmas and a lot of cultural gaps between students… this is a slow process… at the beginning I really had problems, even a lecturer who inserted a symbol… she inserted a Cross in a presentation, and this is a whole story… so first of all one of the things I decided to do is that I have direct communication with all students… it was important to me to know them all personally, that they'll have someone to turn to… so support for the staff, to give them some sort of guidance, explanations about this unique group… I turn to the lecturers; I do some kind of mediation between lecturers and students many times, to help them, also to understand. Also now, many lecturers gave many, many assignments before Passover, and Passover is a time when many religious and ultra-religious women collapse… I had to mediate this to the lecturers… [tell them] you cannot give so many assignments now. Let's wait till after Passover… also during Passover many ultra-religious don't write and don't study [secular studies], I mean, these little nuances I have to mediate sometimes to the lecturers." (T.S.G.)

She added regarding support for students: *"Another thing I do, I'm in direct contact with the Students' dean and his assistant, and we take care of lots of personal problems…"*

LCE provides support to students with special needs through a unit that specializes in this area, titled MEITAR. However, not all students understand their needs, so a gap can be developed just by lacking the understanding that help is required:

> "... they accompany the students and help them in mediation. They have this thing that a student can come and consult with an advisor and get this support. One of the problems is the way I see it that the student doesn't always understand [his needs] or until he understands his difficulty, and then until he understands what support he can get, sometimes 3 or 4 lessons go by, and then he develops a gap." (E.S.)

The students' dean also reports on support for staff and students, mostly regarding students with special needs (e.g., learning disabilities, sense impairments, ADD), also by MEITAR, the center for students with special needs.

> "MEITAR posts instructions for all lecturers regarding how to promote accessibility and also there's a students' group who is active in instructing lecturers, so yes. Gently, the students try to verify that lecturers who don't know [how] do know. It's not a systemic training, more a personal one-to-one [assistance], and also there are days which are dedicated to special activities in the college." (O.M.)

The support for faculty and students is important, so that the equity between students from special populations enjoy the benefits of online distance learning, either by training staff, or by approaching students that need assistance in order not to create a gap that is too wide to close; therefore, identifying these populations is imperative for their success on an equal basis.

3.3.7. KEY FINDINGS

In terms of infrastructure: most students have devices (either desk computers, laptops or tablets). The vast majority of HE students have smartphones; this excludes the ultra-orthodox population, some of which do not own devices due to religious constraints and beliefs that this allows access to improper content.

- Internet connection varies among students, depending on several factors; in general, it is more difficult to maintain a good connection when attending synchronous lessons. Also, in some rural minority areas the Internet is weaker, e.g., Arab villages. In general, Internet connectivity in Israel is common.

- Many students experience difficulties in finding a physical space at home for optimal learning, secluded and with all the facilities that enable to communicate and concentrate during synchronous lessons or in order to write and submit assignments. Also, some were reluctant to activate their cameras either due to religious reasons or social and emotional reasons.

- Some students experienced stress and anxiety due to the unique COVID-19 conditions, for example, due to quarantine requirements. This social and emotional condition, which will persist during the upcoming academic year – as most HEIs have decided to teach online during the first semester – needs to be taken into account as having impact on academic outputs as well.

- Challenges of online teaching for faculty include: low student-teacher interaction compared to face-to face; need to shift from face to face teaching skills to online teaching skills highlights low digital pedagogy skills; assessment issues – formative and summative; facilitation of student engagement; reference to cultural issues; need to plan ahead more than is face to face teaching.

- Challenges of online learning for students include: low digital literacy of some sub-populations; lower communication between students (impairing their ability to support each other); loneliness of learning from distance; emotional overload; assignment overload; lack of self-discipline and time management skills – assuming responsibility for the learning. This is in addition to technical issues.

4. DISCUSSION AND CONCLUSIONS

The overall impression after analyzing the data is that although students appreciate several advantages of online teaching and learning, mainly the availability of lesson recordings and comfort of not having to commute to classes, many lack ICT skills and online learning skills, hence they prefer frontal classes on campus. It is familiar to them and poses less novelties, which they need to adapt to when shifting to fully online distance learning, which was overwhelming. This is especially difficult in the extreme COVID-19 conditions, in which quarantine posed additional emotional, social, physical and technical challenges.

Most unsatisfied students claim they cannot concentrate for many hours in front of a computer, and that, unlike when learning on campus, they find setting clear study-home boundaries too challenging. This last issue, especially for those with small children at home, some of whom also work full or part time, makes learning online more challenging than frontal learning in terms of load and time management. This challenge is especially significant for ultra-Orthodox students, who are typically older or have families at a younger age, and generally live in small apartments. It is equally challenging for young Arab[3] students, who still live at home, some having young siblings and lacking studying conditions.

Another complaint is about low-quality lessons due mainly to two reasons: untrained lecturers and technology problems such as network breakages, or poor sound/camera quality on the lecturers' side. These, however, are easily solvable and should be dealt with as a pre-condition for well-acceptance of online teaching and learning by students. Training usually occurs on a sporadic basis, some in workshops over the year; lately, at LCE several workshops have been scheduled for online training in an online manner by the Center for Innovation and Excellence in Teaching, focusing on pedagogical-technological issues of concern. As for technical difficulties, LCE has planned to assist students in need with devices – the model of this initiative still needs to be developed.

Based on the Faculty of Law survey at OAC, it is evident that students from all populations least prefer online T&L. However, quite surprisingly, they differ on their preference to learn on campus. It seems that the typical

---

[3] The Arab population do not go to the army for a 2 or 3-year service, unlike the Jewish population, in which it is mandatory, so they may begin their academic studies a few years earlier than the Jewish population.

Hebrew-speaking Jewish student is most comfortable learning in class, participating in simulations and writing assignments, while students from other populations, either by religion or by native language, are less comfortable in class, and prefer simulation and written assignments over frontal T&L. At LCE, it seems that there is a gradual process of adaptation to online distance learning, but this is a long and exhaustive process, that requires planning of the courses that includes blended learning – both synchronous and asynchronous – and thorough examination of technological applications that allow a pedagogical shift: from traditional teaching and knowledge transfer, to knowledge construction and knowledge creation, via methods such as teamwork and collaboration, inquiry-based learning, flipped classroom (with support) – to name a few.

The above findings attest to the different preferences of students from special populations, typically minorities, who are generally less comfortable in class yet are equally uncomfortable in online T&L as currently delivered in both OAC and LCE. Further in-depth data collection, possibly in additional interviews and focus groups is required in order to pinpoint the exact needs of these populations, in order to develop suitable distance learning HE programs which consider needs of special populations, in an attempt to promote equity and inclusion of these populations.

5. REFERENCES

[1] Adams, W. (2015). Conducting Semi-Structured Interviews. In, J. Wholey, H.Hatry, K. Newcomer (Eds.), Handbook of practical program evaluation. DOI: 10.1002/9781119171386.ch19

[2] Chun Tie, Y., Birks, M., & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. SAGE open medicine, 7, 1-8. https://doi.org/10.1177/2050312118822927

[3] Townsend, T. H. (2018). Academic Hustle: Teaching African American Students in Online Educational Environments. Doctoral dissertation, Indiana State University. Retrieved May 2020 from https://search.proquest.com/docview/2162884802?pq-origsite=gscholar&fromo-penview=true