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# Returning to the Academic Campus as the End of the COVID-19 Pandemic: Findings from a Student Survey in Israel

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#### **Abstract**

The Covid-19 outbreak created challenges for higher education as well as opportunities for transitioning to flexible models of teaching and learning adapted to the vision and culture of institutions of higher education in the new era. This study examines students' perceptions of face-to-face teaching and learning on the academic campus, after engaging in multiple e-Learning models during the pandemic. The findings of the current study show that we cannot resume full face-to-face learning as in the past. Most students (some 60%) expressed a clear and unequivocal preference for exclusive online learning. Students nonetheless expressed the belief that studying on campus allows them interpersonal and social interactions with students and faculty on campus. The findings of the current study support the consensus within the scientific community regarding the beneficial effects of socio-emotional learning programs on academic, emotional, and behavioral capabilities, the atmosphere in class, and students' achievements.

Keywords: academic campus, Covid-19, e-teaching, e-learning, socio-emotional learning (SEL), student perceptions

#### Introduction

Studies that followed the Covid-19 crisis on teaching and learning in institutions of higher education raise several important questions, such as: In the era of the technological revolution – does an incidental event become a facilitative event? What are the economic and pedagogic consequences of the changes that occurred during the Covid-19 pandemic (Volansky, 2020)? What are the implications of these changes for higher education? What is the significance of the academic campus? What roles do lecturers and students play in academic teaching and learning (Berger-Kikochinsky et al., 2020; Davidovitch & Wadmany, 2021)? Studies indicate that higher education has become a commodity, more than ever before (Hodges et al., 2020), and that students are more conscious than in the past of their limited time and other resources (Almog & Almog, 2020; Eckhaus & Davidovitch, 2021; Guo at al., 2016). Today, after more than two years in which students experienced a variety of learning models that ranged from fully digital learning, through hybrid (or blended) models, to face-to-face learning, , we are at a point in time that offers an opportunity to reconsider the meaning of academic teaching and learning, The current study focuses on the learning experience of students in higher education institutions in Israel upon their return to the academic campus after Covid-19 restrictions were lifted, and explores their perceptions of teaching and learning toward the end of the Covid-19 pandemic (Kovoor, (2020).

## **Research Questions**

The research questions focused on students' experience of teaching and learning after returning to campus. Specifically, we ask:

- (1) Do students consider face-to-face learning in the classroom to be an effective teaching method, and if so, to what degree?
  - (2) Do students believe that face-to-face teaching improves their learning abilities, and if so, to what degree?
- (3) Do students prefer e-teaching or face-to-face teaching, and do these preferences differ by type of lesson, department, manner of instruction, or lecturer's availability?
  - (4) What are the predictors of students' preferences for face-to-face teaching?
  - (5) What are the main difficulties that students encountered when they returned to campus?
  - (6) What should be done to improve students' experience of face-to-face teaching in the classroom?

## **Literature Review**

Many studies, which have followed the Covid-19 outbreak over the past three years, examine the effectiveness of e-Learning, and its benefits and shortcomings for students' learning (e.g., Cohen & Davidovitch, 2020; Davidovitch & Wadmany, 2021). The Covid-19 crisis compelled all institutions of higher education, in Israel and elsewhere, to transition to full e-studies, promptly and with no prior planning. Online studies continued until a decision was made in 2022 to resume studies on campus, either fully or partially in person, at schools, universities, and colleges in Israel. In response, academic faculty were required to implement a fundamental change in their teaching. These changes create the basis for a new way of planning and teaching, and called for new ways of creative thinking and problem solving by lecturers in higher education, as well as an opportunity to rethink the essence of students' learning.

## The Characteristics of E-Learning

E-Learning is characterized primarily by studying from home or participating in studies that do not require physical attendance at an academic institution. Teaching and learning are performed through the use and integration of technological devices and platforms means (smartphone, computer, apps, and websites, online lessons or recorded lessons and presentations). E-Learning creates a change in the structure of academic teaching and learning (Nir-Gal, 2000). E-Learning affords an improved learning experience through the use of computers and/or the internet, both within the academic institution and outside it (Phelps, 2018; Davidovitch & Wadmany, 2021). Even before Covid-19, academic institutions also developed an awareness of the financial and marketing potential of the incorporation of e-Learning in the programs they offer.

Technology per se is mostly infrastructure – tools. The choice of how to realize the potential that technology represents belongs to its developers and users (Altbach & De Wit, 2020). As a result, different models of e-Learning were developed, ranging from the Moodle system, where students access materials uploaded by lecturer, through face-to-face lectures accompanied by digital presentations, to innovative models that combine multiple content sources and attempt to offer new, more collaborative and less centralist forms of learning, All these models are based on digital contents that are on the internet for viewing or for shared learning (Davidovitch & Wadmany, 2021; Goldschmidt, 2013).

# Opportunities and Impediments to E-Teaching in Higher Education

In recent years, an increasing number of universities and colleges have sought to integrate e-teaching in their academic institutions, and are investing many resources in developing distance learning courses, which they see as an attractive, relevant, and commercially advantageous way of teaching and learning. Institutions of higher education in Israel are a unique case, as studies indicate that Israeli students, who are typically older than university students in other countries, have many commitments and need flexible study hours and short travel times to the university campus in order to efficiently combine work with studies (Eckhaus & Davidovitch, 2021). In Israeli students begin to study after their military service, many have already started their own family, and most have moderate socioeconomic status (Davidovitch & Wadmany, 2021). Hence, the convenience offered by distance learning and the flexibility of time and place meet the needs of learners in general, and in Israel in particular (Benade, 2017).

During the Covid-19 outbreak, the closure of academic institutions and the transition to e-learning posed significant challenges for learners and their families. Less advantaged students from low socioeconomic groups were especially adversely affected by a lack of conditions at home that were conducive to continuous learning, such as a suitable study

space and stable internet connection. Such disparities in resources available at home obviously had a potentially detrimental effect on universities' efforts to ensure equal opportunities for all learners (Weissblei, 2020).

In addition to its personal, familial, and financial advantages, e-teaching also has benefits for digital literacy and learning skills. For example, even before the Covid-19 pandemic, a study conducted with students in the Technion in Israel (Barak et al., 2012) indicates that students who studied remotely expressed a greater sense of self-efficacy. Self-efficacy is a necessary condition for success distance learning, as students must have confidence in their ability to monitor and manage their academic progress, be self-motivated, mobilize their cognitive resources, and perform the required tasks. Hence, with regard to learning preferences, students who studied remotely were found to have more positive attitudes to asynchronous learning (online content and prerecorded lectures) compared to students who studied face-to-face, because they believed that studying remotely at the time of their choice could enhance their learning skills (Barak et al., 2012).

The research literature indicates that many students need a supportive setting that includes face-to-face teaching and direct contact with the lecturer (Davidovitch & Wadmany, 2021). In distance learning, the learner is considered to be an active, independent learner who has the choice and freedom to make decisions about their learning process and to manage their study time independently. Hence, students who manage to study remotely are likely highly motivated, independent, self-efficacious learners who believe in themselves and their abilities and have high self-control, which allows them to effectively solve problems and handle challenges in general, and cope with technological issues (Wagner & McCombs, 1995; Davidovitch & Wadmany, 2021).

Despite the above, the research literature shows that there are elements that pose difficulties for learners in virtual environment across the globe (Cohen, 1999; Weissblei, 2020). One of the main problems characteristic of distance learning processes is the absence of a social setting. Some learners find it hard to learn individually, and distance learning, which includes no face-to-face social interactions, might be to their detriment, particularly for complex courses that require discussion and conversation (DePietro, 2020).

## The Necessary Conditions for an Effective Transition to E-Learning

Studies conducted before and during Covid-19 identified several conditions that must be addressed when designing an effective transition to teaching and learning in online environments (Hershkowitz & Kaberman, 2009; Eckhaus & Davidovitch, 2021). The transition from traditional learning to e-learning completely changes the learning experience for students and not unexpectedly evokes resistance and objections. In Israel, during the Covid-19 pandemic, students and lecturers were required to quickly adapt to the online learning environment and to new technology-supported management systems, courses, and teaching techniques. While learning in a traditional classroom is mostly passive, use of technological tools invites more active learning. Students with a "traditional" learning outlook therefore find it hard to adapt to e-teaching. Training and practice with e-learning, and an awareness of the benefits of this type of learning, might facilitate a change in student perceptions and prepare them for a transition to learning in online environments (Eckhaus & Davidovitch, 2021).

To ensure a smooth transition, institutions that operate online learning systems must take action to prevent technical problems in general, and specifically to prevent disparities between different populations and sectors. In Israel, such groups include Arab and ultra-Orthodox Jewish students (Weissblei, 2020). An adequate level of technological skills is essential if students are to become integrated in online courses, manage and complete their assignments, perform well in exams, and take an active part in their own learning process. Training in computer and technology literacy is therefore necessary to help students function effectively in online environments with no disturbances or obstacles (Cohen & Davidovitch, 2020).

Students must also have good time management skills. Setting times constitutes a fundamental component of elearning. Managing a learning process online is different than learning face-to-face, particularly because students have the sense of having no time limits or constraints because it is possible to learn anywhere, anytime. In practice, however, elearning poses a challenge for students' time management skills as online courses require considerable time and intensive effort and concentration. Planning a regular schedule can help learners plan and organize their learning (Cohen & Davidovich, 2020).

The education system in Israel was partially digitized at the outbreak of the Covid-19 pandemic, but use was minimal, especially in the higher education system. As a result, both lecturers and students often lack the cognitive skills necessary for efficient and effective use of online technologies (Davidovitch & Yossel-Eisenbach, 2018), including information searches, collecting verbal and visual data, building knowledge, evaluating quality, and generating meaningful study material from materials located in the digital sphere. A lack of these skills might lead to unwise use of these technologies in teaching and learning,

Moreover, it is necessary to fit the pedagogic approach to the learning environment. Namely, online academic learning environments are typically considered supplementary material that supports lecture-based courses and therefore the pedagogic approaches used are adapted to traditional face-to-face learning and teaching processes. Moreover, in Israel, many lecturers have not undergone specific training in adapting their teaching materials to distance learning format and

pedagogies. As a result students attend courses that use novel technologies without specifically adapted pedagogies, which makes it difficult for students to learn effectively (Davidovitch & Wadmany, 2021). Recent studies in Israel highlight the need for a new digital pedagogy for academic teaching and learning (Davidovitch & Eckhaus, 2021; Wadmany, 2017, 2018).

Self-motivation is an essential requirement for e-Learning, yet many students in Israel who study online have been found to lack motivation (Barak et al., 2012; Davidovitch & Wadmany, 2021). High motivation and a positive attitude are important factors in students' efforts to cope with the challenges of e-learning challenges (Davidovitch & Wadmany, 2021).

Studies in Israel found that students describe a sense of loneliness and social disconnection when learning in an online environment (Davidovitch & Eckhaus, 2021) and emphasize the lack of physical reinforcement that usually exists when studying face-to-face. Furthermore, this sense of loneliness has a negative impact on students' academic achievements (Davidovitch & Wadmany, 2021). Studying on campus offers students an opportunity to satisfy emotional and social needs. Prior to the Covid-19 pandemic, students were accustomed to spending most of their time on the academic campus where social interactions and opportunities for personal growth occurred. A study published in late 2020 by CASEL, the leading US organization that promotes social-emotional learning (www.casel.org) emphasizes the significance of social-cultural sensitivity, values of equality and fairness, trust and cooperation, and authentic relationships among families, educational systems, and communities. According to CASEL, social-emotional learning is an inseparable part of education and human development, and it advances individual's educational capital and the excellence of the educational system, including the system of higher education. CASEL defines social-emotional learning as a process in which children and adults acquire and implement knowledge, skills, and attitudes, in order to develop a healthy self-identity, manage their emotions, achieve personal and collective goals, feel and display empathy; establish and preserve supportive relationships, and make decisions in a responsible and caring way. The transition to e-Learning requires that institutions of higher education continue to create opportunities for students social-emotional learning, beyond the technicalities of the materials taught in the academic programs (Passey, 2019). In Israel, in response to the pandemic, higher education institutions were urgently required to develop methods that would allow education to continue from home. However, encouraged in this direction by the Council of Higher Education, these new methods and practices were focused almost exclusively on the technical aspects of teaching and almost completely disregarded the social effects of distance learning. Higher education institutions focused on helping their instructors organize their teaching differently to adjust to the new circumstances of the pandemic, but directed limited attention to preparing instructors to address the social and emotional effects of e-Learning on their students.

## **Theoretical Background**

The study was based on Hativa's (2015) emotional-cognitive model of optimal teaching. According to this theory, a teacher's optimal teaching ability comprises two dimensions: the first is the cognitive dimension, which includes the ability to organize the course and the lessons and make optimal use of the time for learning; presentation of clear explanations of the course materials; and the ability to maintain students' focus and engagement in the lesson. The second dimension is the emotional-social dimension, comprising the teacher's respect for their students, empathy for their challenges, a sense of caring, and assistance to help them succeed. Additional areas examined in this study were based on the model developed by Cohen and Davidovitch (2020) and these are: improving students' learning in online studies, and personal preferences for online vs. face-to-face learning of students and teachers.

The current study explores the transition to e-Learning in higher education institutions in Israel, reflected in students' perceptions of the advantages and shortcomings of e-Learning and face-to-face teaching upon their return to campus after experiencing various forms of e-Learning models during the Covid-19 pandemic, including full, blended, and occasional face-to-face learning.

## Methodology

This study combines quantitative and qualitative research methods. The study is based on an attitude survey conducted among students of Ariel University in Israel. Ariel University has an extremely diverse student population and differs from other universities in the attention that the institution gives to its students' learning experience and the social-cultural dimensions of a university education. In response to the pandemic, instructors at Ariel invested efforts not only to adjust their teaching methods to e-Learning, but also directed attention to the emotional and social experiences of their students and instructors.

A questionnaire was developed for this study, comprised of items related to the effect of online learning on learning quality (Hativa, 2015), and respondents' perceptions of the advantages and shortcomings of online teaching and learning (Cohen & Davidovitch, 2020). Students rated their agreement with each items on a scale from 1 (not at all) to 5 (very strongly agree). Demographic information on respondents was also collected (e.g., personal and work background). To obtain in-depth understanding of the findings of the statistical research, the survey also included five open-ended questions,

students were requested to express their opinion on (a) the advantages of studying on campus, (b) the challenges of attending classes on campus, (c) how to improve teaching on campus, and (d) the future of e-teaching.

# The Sample

The research population included 1,048 students, most of whom were studying for a bachelor's degree at the university. Close to half (48.7%) were studying at the Faculty of Social Sciences and the Humanities. Sixty percent of the research population were female students, two thirds were working concurrently with their studies. About one quarter reported having a low socioeconomic status, and more than two thirds were not married. Table 1 presents the students' background characteristics.

## **Instruments**

A questionnaire in which students responded to several statements related to the impact of e-Learning on the quality of their learning, and the advantages and disadvantages of e-teaching and e-Learning was developed specifically for this study on the basis of Hativa's (2015) theory and cognitive-emotional model of effective teaching. According to this theory, effective teaching comprises two dimensions: (a) a cognitive dimension, which includes a good ability to organize the course and the lesson, make efficient use of the time for learning, present clear explanations of the study material, and maintain students' concentration and engagement in the lesson; (b) an affective dimension, which includes the teacher's ability to show respect for the students, express empathy for their challenges, care about their success, and assist them in achieving it. The questionnaire also included items developed on a model proposed by Cohen and Davidovitch (2020), which reflected two additional dimensions of teaching, specifically in e-Learning settings: (c) the teacher's ability to improve students' learning abilities through e-teaching. (d) Students' personal preferences for e-Learning, by type of lesson, manner of studies, type of institution, department, students' convenience, and resources).

Participants rated their agreement with 43 items, which were classified into the four main themes described above on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). In addition, the questionnaire included questions on personal, marital, occupational, and learning-teaching background characteristics of the students in the sample.

## **Findings**

The first research question examined students' perceptions of the effectiveness of face-to-face learning in the classroom. To examine the association between students' preferences for face-to-face learning on campus or for e-Learning and the different teaching dimensions, we conducted a Pearson's test. The findings indicate that students' preference for face-to-face learning was most strongly and negatively associated with students' belief that e-Learning improved their ability to study. Students' preference for face-to-face learning was also significantly positively associated with students' belief that face-to-face learning is more interesting, followed by the belief that lecturers' availability is greater in face-to-face learning.

Students' preference for face-to-face learning was significantly negatively associated with the belief that e-learning is more convenient, which is consistent with the negative association between students' preference for face-to-face learning and the belief that face-to-face learning is wastes students' resources. The findings indicate an inverse association between preference for face-to-face learning and variables related to convenience and efficient use of resources.

The second research question related to students' belief that face-to-face learning on campus improves students' learning. The majority of students in the sample (65.7%) believe that e-Learning improves learning skills compared to face-to-face learning, versus some 17% of students who think that face-to-face learning improves students' learning skills compared to e-Learning. To explore the aspects of teaching that predict participants' preferences for learning on campus, we conducted two regression tests: a multiple regression test (Model 1) and a hierarchical regression test (Model 2).

## Model 1

Model 1 is a multiple regression model. The dependent variable in the model is students' preference for learning on campus, and all other research variables are independent variables (improved learning in face-to-face learning, convenience of studying in face-to-face teaching, lecturers' availability in face-to-face teaching, waste of resources, interpersonal interactions in face-to-face learning, and the three measures of effective teaching).

**Table 1.**Pearson's Correlation Test Between the Research Variables

_	1	2	3	4	5	6	7	8	9	10	11
Personal preference for e-	-										
learning											
Personal preference for face-to-	-0.864***	_									
face learning	0.00										
Improved learning capacity in	-0.838***	0.893***	_								
face-to-face learning											
Convenience in the study	0.722***	-0.701***	-0.714***	_							
process in e- learning											
Availability of lecturers in	-0.636***	0.704***	0.763***	-0.555***	-						
face-to-face learning											
Studies are more interesting in	-0.795***	0.843***	0.889***	-0.709***	0.751***	-					
face-to-face learning											
Studies are more ordered and organized in face-to-face	-0.162***	0.189***	0.198***	-0.152***	0.236***	0.200***					
organized in face-to-face learning	-0.102	0.189	0.198	-0.132	0.230	0.200	-				
Studies are clearer in face-to-											
face learning	-0.211***	0.256***	0.259***	-0.186***	0.263***	0.266***	0.451***	-			
Waste of resources in face-to-											
face learning	0.670***	-0.604***	-0.567***	0.547***	-0.442***	-0.530***	-0.095**	-0.147***	-		
Interpersonal interactions in											
face-to-face learning	-0.129***	0.148***	0.181***	-0.206***	0.189***	0.197***	0.372***	0.367***	-0.141***	-	
Students' self-evaluation of	0.1.12.0.0.0	0.100	0.100***	0.050**	0.100	0.105***	0.052	0.075*	0.102444	0.000	
their academic achievements	0.143***	-0.136***	-0.188***	0.079**	-0.166***	-0.125***	-0.053	-0.075*	0.102***	<b>-</b> 0.009	-
Lecturers prefer face-to-face	0.640***	0.602***	0.733***	0.552***	0.620***	0.717***	0.105***	0.272***	0.401***	0.105***	0.12(***
learning	-0.640***	0.683***	0.722***	-0.553***	0.629***	0.717***	0.195***	0.272***	-0.421***	0.195***	-0.126***

**Table 2**Multiple Regression Coefficients for Students – Model 1 – Predict Only Measures Of Perceived Learning on Campus

	В	β	t
Constant	1.16		6.35***
Improvement of learning capacity when teaching on campus	0.72	0.60	18.38***
Interpersonal interaction	-0.01	-0.03	1.77
Improvement of teaching (interest)	0.18	0.18	5.63***
Waste of resources	-0.18	-0.11	6.69***
Improvement of teaching (order and organization)	-0.00	-0.01	0.56
Availability of lecturers	0.03	0.03	1.29
Improvement of teaching (clarity)	0.01	0.03	1.93

<sup>\*\*\*</sup>p < .001, \*\*p < .01, \*p < .05.

According to the findings, the regression model in Model 1 is significant (F(8,970) = 582.75, p < .001) and explains 83% of the variance in students' preference for face-to-face learning on campus ( $r^2 = 0.828$ ). Availability of lecturers on campus, improved order and organization of teaching in face-to-face learning, improved clarity in face-to-face teaching, and more opportunities for interpersonal interactions in face-to-face learning predicted students' preferences for studying on campus. In contrast, the strongest predictor of students' personal preference for studies for e-Learning is "improved learning capacity in face-to-face learning." Other variables found to be significant predictors of students' preference for learning on campus (although their predictive strength is less than half that of the variable "improved learning capacity") are "studies are more interesting in face-to-face learning" and "waste of resources in face-to-face learning."

## Model 2

Model 2 is a hierarchical regression that included two stages: The first stage included students' background variables (age, gender, marital status, employment status, department, type of institution) and students' characteristics (special needs, language difficulties, students' self-evaluation, difficulties students encountered while studying on campus). The second stage included the variables entered in the first stage and all the research measures explored in Model 1. Model 2 included the characteristics of the hierarchical regression. Students' background variables explain only 13% of the variance in

students' preferences for face-to-face learning, while students' preference face-to-face learning explain 70% of the variance in students' preference for face-to-face learning. The overall model explains 83% of the variance in students' preferences for face-to-face learning. Table 3 presents the characteristics of the hierarchical regression model – Model 2.

**Table 3**Preference for Learning on Campus – Model 2 – Predicted by Background Variables and Students' Perception of Learning on Campus

	F	$r^2$
First stage – Predictors: background variables	13.30***	0.13
Second stage – Predictors: background variables and perception of learning on campus	246.96***	0.83

<sup>\*\*\*</sup>*p* < .001, \*\**p* < .01, \**p* < .05.

Analysis of the two stages indicates a significant difference: The background variables explain only 13% of the variance in students' preference for face-to-face learning, where the measures of perceived face-to-face learning explain 70% of the variance in the preference for face-to-face learning and the overall model explains 83% of the variance in the variable of preference for face-to-face learning. Table 4 presents the coefficients of the hierarchical regression in the first stage, which includes only background variables that predict the preference for learning on campus.

**Table 4**Preference for Learning on Campus – Hierarchical Regression Coefficients – Model 2 Stage 1 – Predicted by Background Variables

	В	β	t
Constant	2.72		8.07***
Married	-0.321	-0.11	3.21***
Have resources for face-to-face learning	0.82	0.26	8.32***
Social Sciences	0.16	0.06	1.78
Working	-0.23	-0.08	2.49*
Type of institution (university)	-0.23	-0.06	1.72
Special needs	0.29	0.04	1.25
Age	-0.01	-0.03	1.00
Student self-evaluation	-0.20	-0.12	3.84 ***
Gender	0.12	0.04	1.30
Language difficulties	0.42	0.05	1.73

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

Four background variables explain students' preference for face-to-face learning on campus, most strongly by "improved learning capacity on campus" Students who noted that they are capable of learning effectively on campus expressed a stronger preference for learning on campus. The following variables were negative predictors of students' preferences for learning on campus: students' self-evaluation, marital status (married students expressed a lower preference for studying on campus), and employment status (working students expressed a lower preference for learning on campus than did non-working students)..

The belief that face-to-face learning improves students' ability to study is the strongest predictor of the students' preferences for studying on campus, in line with the findings of Model 1. Other variables that predict students' preferences for studying on campus, when controlling for background variables, are the beliefs that face-to-face teaching on campus is more interesting (positive association with preferences for studying on campus), face-to-face studies are wasteful (negative association with preferences for studying on campus), "having special needs" increases the preference for studying on campus, while students' who also hold a job in addition to their studies reduces the preference for face-to-face studies on campus.

Next we explored students' personal preferences for face-to-face or e-teaching by type of lesson, discipline, manner of teaching the lesson, and the lecturer's availability. Students' preference for face-to-face teaching on campus is related to the type of lesson studied: Students who have a weak preference for face-to-face teaching on campus prefer online theoretical courses via e-Learning and prefer to study hands-on courses and workshops on campus (see Table 5).

**Table 5**One-way Analyses of Variance (ANOVA) – Preference for Teaching on Campus by Type of Preferred Course in e-Learning

	Preference for studying on campus											
	Weak				Moderate				Strong			
Types of courses preferred in e-Learning	М	SD	n		М	SD	n		М	SD	n	F
Theoretical courses	c4.70	0.80	678		b4.11	0.99	122		a3.16	1.37	169	183.79***
Exercises	c4.49	0.98	676		b3.69	1.22	120		a2.59	1.40	167	208.81***
Practical courses	c3.02	1.55	670		b2.18	1.45	117		b1.82	1.17	167	52.20***
Workshops	c3.54	1.50	660		b2.67	1.49	117		a2.10	1.30	162	70.84***

<sup>\*\*\*</sup>p < .001, \*\*p < .01, \*p < .05. Means marked by different letters are significantly distinct.

We also explored students' preferences for different types of e-learning methods: synchronous e-lessons, recorded lectures, or a combination. Findings indicate that 61.4% of students (N = 630) prefer synchronous e-lessons and 28.1% (N = 288) prefer a combination of a synchronous e-lessons and recorded lectures. Only about one tenth of the students preferred recorded lectures only. Students with low self-evaluation expressed a stronger preference for face-to-face learning on campus than did students with high self-evaluation, who preferred e-Learning. To address the fifth research question we explored whether students prefer face-to-face teaching on campus and to what degree. Based on the findings of previous studies, we examined students' preferences by perceived convenience of studies, which was found to be significant (Davidovitch & Wadmany, 2021). Perceived effectiveness of e-Learning compared to face-to-face learning in a classroom is also related to perceived convenience (or lack thereof) of attendance requirements and technical difficulties that traveling to the campus entails. According to the findings, 51.4% (N = 539) of the students feel that online studies via Zoom are more convenient than face-to-face studies. A high degree of agreement is evident among students regarding two perceptions of face-to-face teaching that are not related to the teaching process: A very high percentage of students believe that studying on campus is a waste of resources (such as the cost of petrol for traveling to the academic institution, hours spent in traffic jams, hours of waiting between lessons at the university), while slightly less than half the students reported that studies on campus offered greater opportunities to engage in interpersonal interactions with students and faculty.

In general, students believe that studying on campus makes a small contribution to improving their learning skills and ability to study. Only some 17% of all students contended that e-teaching increases their ability to study while 65% of students believe that teaching on campus reduces their ability to study. Regarding students' beliefs concerning lecturers' availability, order and organization of studies, studies as a source of interest, and clarity of teaching – more students contended that teaching on campus is detrimental to the academic experience compared to students who believe that studies on campus help improve the academic process. In addition to the findings of the quantitative study, we also present the findings of the qualitative study, which was based on a series of open-ended questions.

## **Preference for Studies on Campus**

Analysis of the themes that emerged in participants' responses to the open-ended question regarding the advantages of studying on campus shows that 82.2% of the responses refer to opportunities for interpersonal interaction (whether with the lecturer or with others, such as friends in general and/or fellow students). Personal relationships and lecturer availability was the second most frequently theme mentioned by participants. This finding may illuminate the conflicting findings regarding students' beliefs of the opportunity to interact with lecturers in the quantitative section of the study. The findings of the open-ended questions correspond to the findings that indicate the importance of this variable for students' perceptions of studies on campus. However, according to the statistical findings, 53.4% of students believe that lecturer availability in face-to-face teaching is low. That is, while relationships with lecturers (and others) are perceived as highly important,

students feel that lecturers' availability in practice is actually insufficient: "It all depends on the lecturer. Some lecturers are worth their weight in gold, and with regard to others I have no idea how they call themselves lecturers and it seems that they only come to pass time"... "I think that teaching in class is relevant mainly when the lecturer is charismatic and there is added value to studying in class..." "The lecturers and the teaching assistants are very caring and helpful. That's the most important [thing], it really makes a difference" ... "Lecturers should leave students alone, they should be lecturers and not high school teachers."

In their responses to the open-ended questions, students are critical of the quality of lecturers' teaching, and refer primarily to the pedagogical aspects of the lecturer's work: "If presentations are used then the lecturer should make good use of them rather than only reading aloud from them," "It is important to improve the quality of lecturers and teaching assistants (some of them)," The findings also indicate that students attribute importance to lecturers' attention, patience, and empathy for students: "Nice, attentive lecturers, and not those who only come to read aloud from a presentation. Caring"... "More patience by teachers [is needed]"... "More contact between lecturers and students [is needed]. I have no specific idea, but [they should] try and increase students' sense of belonging."

Analysis of students' responses regarding the advantages of studying on campus also shows that 46.8% of addressed various aspects of the learning process (the ability to concentrate, the learning atmosphere, comprehension of the material, focused and meaningful learning, and academic commitment). Some 10% noted that studying on campus improves lecturers' ability to explain the study material, and some 12% noted that studying on campus improves their ability to concentrate and to focus on the material. At the same time, it is notable that a considerable proportion of participants (21.6%) believed that studying on campus offers no advantages whatsoever.

Students were also asked to address the difficulties they encountered when they returned to campus after social distancing restrictions were lifted. The findings indicate that 22.3% (N = 227) noted that they lack the necessary resources and tools for studying on campus. Of these students, 41% reported financial difficulties that studying on campus created for them, specifically the cost of rent, food, and travel costs, such as petrol and/or public transportation. In addition, 23.83% of the respondents reported wasting precious time due to the need to come to campus. Of these students, 11.21% reported difficulties due to their lack of a car, 9.80% reported that the equipment provided by the university for studying is inadequate (e.g., classrooms that are unsuited for studies, broken chairs and desks, an unstable internet connection, and classroom equipment such as projectors and support equipment that are often broken). Also, 9.35% indicated the lack of a designated quiet space for studying on campus and/or elsewhere (many of the students live in dorms or in rental apartments near campus). Accessibility problems due to the lack of regular public transportation (few bus lines, irregular operation of bus lines, where the bus does not arrive at the designated time or at all) and lack of space in the dorms (endless waiting lists for slots in the dorms) were noted by 7.94%. Seven percent of the respondents reported difficulties due to the lack of parking space at the university, 3.73% indicated difficulties related to the cost of equipment required for studying in class, such as specific equipment for workshops, notebooks, pens, laptops, tablets, etc. Complaints concerning crowded classrooms were voiced by 2.8%, and 1.87% reported that the need to come to campus entailed hiring a babysitter or incurring the cost of after-school care for their young children at home. Only 1.87% of the respondents reported difficulties due to Covid-19 and the need to obtain a Green Pass. In March 2021, Israeli law required that individuals present a Green Pass as a precondition for entering certain businesses and public areas. The pass was issued to Israelis who had been vaccinated with two doses of Covid-19 vaccine, or who recovered from Covid-19.

The final research question addressed what students believe should be done to improve the experience of face-to-face studies on campus. Students' responses referred mainly to access and accessibility, specifically (a) access to the campus (transportation) ("Increase public transportation..." "Organize transportation to the university"); (b) parking ("There is a severe parking problem that is very oppressive and eliminates any desire to come," "I usually come to all the lessons. But if there was a train station near the university it would make it much easier."); (c) access within the campus ("I come to class. If it would be possible to open catering facilities at more accessible points at the university – that would be wonderful... Maybe something with real food, that would not require us to walk ten minutes in each direction and wait in line for ten minutes when the break is only 30 minutes," "...And the climb from the lower to the upper campus makes no sense. There should be shuttles or some other way. It makes no sense for us to arrive in class breathless" "Add parking

spaces, to stop making it necessary to hurry from class to class, so that during recess between lessons it will indeed be possible to rest and to take a break rather than having to walk around searching for the next class.")

The next meaningful area that requires improvement according to students is comfort in class ("Sometimes the classrooms are full and there is almost no room to sit," "Not having 300 students in a class," "Transportation to the university; smaller, more comfortable classrooms").

An open-ended question was asked regarding students' opinions on whether online synchronous studies should be continued in the post-Covid era. The responses to this question were consistent with the findings of the quantitative section of the study. Some 60% of the students expressed a clear and unequivocal preference for full online studies, 26% preferred hybrid studies (a combination of face-to-face and online), and only 12.4% of the respondents expressed a wish to resume exclusively face-to-face studies on campus. Notably, 13.6% answered that their preference regarding the type of study method depends on the type of course. A small portion of interview respondents (8.6%) believe that e-learning improves their ability to study effectively, for example through increasing their ability to concentrate on the study material, and contributes to joint learning, discourse, and discussions in class. A small proportion (2.2%) believes that e-learning satisfies students' need to engage in interactions with the lecturer.

## **Discussion**

The current study examined whether and to what degree students are interested in returning to the campus after experiencing e-learning, with all its advantages and disadvantages. The study also explored students' perceptions of teaching and learning after more than two years in which they experienced a variety of teaching models: fully online, blended, and face-to-face. The quantitative and qualitative findings of the current study show that 60% of students expressed a clear, unequivocal preference for studying exclusively online, about one quarter (26%) preferred blended studies (a combination of face-to-face and online studies), and only 12.4% expressed a desire to resume face-to-face studies on campus. Of these, 13.6% stated that their preference depends on the type of course in question.

A high degree of agreement among students is evident regarding two perceptions of face-to-face teaching that are not related to the teaching process: A very high percentage of students believes that face-to-face learning on campus is a waste of resources (e.g., cost of transportation to the academic institution, time spent in traffic jams, time wasted on campus between classes), while slightly less than half of students reported that face-to-face studies on campus offer greater opportunities for interpersonal interactions with students and faculty.

Analysis of the themes that emerged in response to the open-ended question regarding the advantages of studying on campus shows that 82.2% of the responses referred directly or indirectly to interpersonal interactions (whether with the lecturer or with others, such as friends and/or fellow students). Although relationships and interactions with lecturers were considered important, many students noted that such interactions were in practice insufficient.

## **Conclusion and Implications**

Due to social distancing restrictions, the Covid-19 outbreak generated opportunities for transitioning to more flexible learning (Davidovitch & Wadmany, 2021). The findings of the current study, other studies (Davidovitch & Wadmany, 2021), and position papers by students suggest that the campus should operate a blended format that combines online and face-to-face studies. Curricula—including their cognitive and social-emotional dimensions—should be reviewed and adjusted to new teaching and learning formats that meet the needs of today's learners in the new and changing environment. Not all courses are suited for distance learning, but those that are, particularly theoretical courses, should be taught online while carefully incorporating appropriate digital teaching methods and pedagogies. Curricula will necessarily include hands-on classes such as laboratories, workshops, and studios, which require students' physical attendance on campus or in appropriate study zones.

In the past, educational policy consistently focused on students' cognitive and intellectual functioning and underestimated the role of relationships and emotions. Today, the importance of both cognitive and emotional components of the learning process are recognized for their potential contribution to students' academic and personal success. The current research findings support the consensus within the scientific community regarding the importance of social-emotional development (Jones & Kahn, 2017) and the beneficial effects of social-emotional learning on academic, emotional, and behavioral abilities, on the atmosphere in class (Mahoney et al., 2018), and on students' achievements (Schonert-Reichel, 2017). The research literature indicates that in recent years a new educational paradigm known as resilience education has emerged, in which educational contents and practical acquired skills are used to train both students and lecturers to function more independently in times of routine and crisis (Plotkin-Amrami, 2021). Resilience is strongly related to socio-emotional learning (SEL), which emphasizes the process experienced by students and lecturers, and focuses on the means of social-emotional learning, with the aim of developing a wide range of intrapersonal and interpersonal skills, attitudes, and capabilities, including self-awareness, social awareness, and decision-making skills (Durlak, 2015). In contrast to SEL, resilience education is designed to develop learners' coping skills and realize their potential in crisis situations.

We must pay special attention to students' feedback, as evident in the current study, which emphasizes that many students feel that the need to physically attend a lecture on campus that can be delivered online is an unnecessary waste of resources.

Preparation and training are essential conditions for the success of e-learning. Assimilation of technologies requires comprehensive, methodical preparations, including training for the faculty, redefining the nature of teaching, establishing the appropriate technological infrastructure, establishing support systems, working in teams, making judicious use of open sources, and making structural changes to the study halls and classrooms on campus.

Institutions of higher education cannot continue to rest on their laurels and expect to continue to flourish while disregarding their dynamic environment and the changes needs and preferences of their students. University decision makers and educational policymakers must undertake a process of rethinking and strategic planning of study contents and their relevance for students' lives. The tasks ahead include decisions related to the incorporation of the most appropriate new and diverse teaching methods and pedagogies for teaching, learning, and assessment, combined with advanced technologies adapted to learners in general and customizable by individual students (personalization of studies). Such planning must also give weight to the development of students' social-emotional learning abilities and practical skills, so that students understand and manage their emotions, feel and display empathy, are able to set positive goals, develop and preserve relationships, and reach wise decisions to function independently and effectively during times of routine and times of crisis. Although we believe that institutions of higher education will continue to diversify in the future and develop a wide range of teaching and learning models according to their visions and cultures of the institutions, the academic campus will maintain its relevance and importance as an integral component of academic education.

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