PRACTICUM EXPERIENCE DURING COVID-19: HOW DID TEACHING ONLINE IMPACT PRE-SERVICE TEACHERS' SELF-EFFICACY AT AN ARAB COLLEGE IN ISRAEL?

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Abstract

Clinical practice for pre-service teachers provides an opportunity for learning through teamwork with educators while exposing them to new teaching practices, enabling them to examine their self-efficacy in their discipline and pedagogical field. At the time of the outbreak of Covid-19, pre-service teachers were required, to move from practicum settings of frontal teaching in the school face to face into long-distance teaching via zoom. The demands for rapid learning of new platforms for distance learning became challenging. This challenge required pre-service teachers to reconsider their self-efficacy as professionals. The study was performed among students studying in an Arab college in Israel and examined the impact on their sense of self-efficacy in their teaching. The findings were derived from a broad questionnaire distributed among 300 students. The findings indicated an increased sense of self-efficacy during distance learning. Five factors were identified as creating a high sense of ability in designing and executing lessons: Implementation of innovative teaching methods; Convenient classroom management via zoom; High quality of working conditions in distance learning; Good teamwork among all involved in designing the lesson; Gender and the geographical residence area. It is suggested to educational policymakers take into consideration the self-efficacy aspect of pre-service teachers as a factor that may improve or impair their teaching. It is recommended to examine a hybrid practicum model that combines face-to-face teaching as well as distance learning.

Keywords: *practicum experience, pre-service teachers, self-efficacy, Covid-19, education policy*

1. INTRODUCTION

Schools constitute arenas of experience in clinical practice for pre-service students and provide an opportunity for a joint encounter with educators, and teaching practices. The practical experience reinforces learning in training for teaching while anchoring it in the arena of practice, research, and theory in the field (Donista-Schmidt & Ramot 2020; Hadar, Ergas, Alpert & Ariav 2020; Hebebci, Bertiz & Alan 2020; Kidd & Murray 2020).

It is assumed that clinical experience invites the development of profound interpretation, inquiry, and reflection skills for students who specialize in teaching in various disciplines as well as an opportunity to examine self-efficacy in the discipline and pedagogical field. Therefore, it is important to create practices that confront students with their abilities in the initial training phase. The practicum experience allows the pre-service teachers to meet in the school arena with teaching staff, who can assist and reveal the skills required in the school teaching environment.

At the time of the outbreak of Covid-19, laws banning gatherings, social exclusion, and other social restrictions were imposed and enforced on the citizens of the world which directly affected the education system: all teaching and training frameworks including schools, universities, and colleges were closed for long periods imposing full-distance teaching in most settings and educational sequences (kindergarten, elementary, high school and high school). Pre-service teachers in Israel and around the world were required, to move from practical experience settings of frontal teaching in the school face to face into long-distance teaching via zoom. One of the demands of the education system was rapid learning of the use of new techno-pedagogical tools and platforms for distance learning and learning (Whalen 2020).

The practicum experience within the online space has posed new challenges for pre-service teachers among them: a change in communication with stakeholders in school (mentor teachers, pedagogical

instructors, school staff, school students, etc.); Challenges in planning and implementing an effective practice lesson; The effect of the pandemic on the personal wellbeing of each pre-service student in various ways. These challenges required pre-service students to reconsider their self-efficacy as a professional.

Assuming that online spaces will continue to be part of the educational system in routine times, and as online spaces summons new opportunities – it is required to re-design practicum experience as such that can be carried out in the post-Covid-19 eras. Is it possible to combine practicum experience both online and in school? Is it possible to develop an innovative practicum experience model that corresponds with the understandings formed after a long period of distance learning? A practicum model that prepares students to teach in emergency times may contribute to the professional self-confidence of students and to their sense of self-efficacy.

This study focuses on the impact of the Covid-19 crisis on the field of preparation and entry into teaching. It was performed among students studying in an Arab college in Israel while their practicum experience period when their entry into schools was restricted. It examines the impact on their sense of self-efficacy in their teaching. It is important to understand how pre-perceived teachers perceived the transition from in-school experience in the classroom to distance learning via zoom. In addition, making their voices heard in relation to all aspects of teaching required when teaching remotely becomes common.

Consequently, the purpose of this study was to examine the effect of remote teaching experience on pre-service students' sense of self-efficacy during the Covid-19 epidemic from their own perspective on teaching. The findings indicate five factors as accelerating self-efficacy in designing and executing lessons: implementation of innovative teaching methods; convenient classroom management via zoom; the high quality of working conditions in distance learning; good teamwork among all involved in designing the lesson; gender and the geographical residence area. These findings may assist the design and implementation of new models for the practicum experience.

2. LITERATURE REVIEW

2.1. Covid-19: Adaptations and Adjustments

Considering the novel emerging pandemic that has triggered a massive disruption in global mobility in general and in the implementation of the practicum experiences, far-reaching and unprecedented challenges have been posed on pre-service and in-service teachers while aggravating and reinforcing structural inequalities. Despite the enormous efforts of universal educational systems worldwide to sustain a multichannel education delivery, this shifting from the vibrant, concrete, and factual educational environment to the remote, the digital, and the prospective alternative one – still pre-service students experienced difficulties and inequality within the system and between profound sectors, deepened. Extensive research investigated self-efficacy beliefs (SEB) of preservice teachers' related to digital and technological literacy (Giles & Kent 2016; Lemon & Garvis 2019; Main 2016; Martin, McMaster & Carey 2020; Pendergast, Garvis & Keogh 2011; Raphael & Mtebe 2017; Shively & Yerrickb 2014; Teo 2009; Topkaya-Zehir 2010). Still, there is a discernable paucity of research that pays heed to such beliefs in digital teaching capacities during the Covid-19 pandemic.

2.2. Pre-Service Teachers and Self-Efficacy

It is only recently that self-efficacy has been hailed as one of the most prominent factors considered in effective pedagogy. In social cognitive theory, perceived self-efficacy is a ground-breaking term that was first coined by Albert Bandura in his 1977 article "Self-efficacy: Toward a Unifying Theory of Behavioral Change". Bandura (1977), father, and advocate of 'self-efficacy', emphasize the connection to personal beliefs whereby individuals become producers of their own social environments rather than mere products of such environments. In 1982, the term 'self-efficacy' took on a new meaning as it was linked to Bandura's "triadic reciprocality" whereby three key factors determining behavioral performance and human experience are interfused: the behavioral, the personal, and the environmental (Bandura 1982). To use Bandura's own words "*Self-efficacy is personal judgements of one's capabilities*

to organize and execute courses of action to attain designated types of educational performances" (Bandura 1995, p. 203). That is, self-efficacy is one's belief in one's own capabilities to produce and implement self-devised strategies required to master potential conditions. Bandura argues that these beliefs determine how one thinks, behaves, and feels. Moreover, these beliefs incorporate "cognitive, motivational, affective and selection processes" at function ensemble rather than separately. Embracing Bandura's Theory, Tschannen-Moran & Hoy (2001, p. 783) explained teacher self-efficacy as a teacher's *"judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated*". Another research carried out by these researchers (Tschannen-Moran & Hoy 2007) emphasized the significance of studying the self-efficacy beliefs of pre-service teachers.

Field experiences of pre-service teachers were investigated by many scholars (Ball & Cohen 1999; Coffey 2010; Eisenbach, Greathouse, & Acquaviva 2020; Hollins 2015; McGregor, Sanford, & Hopper 2010; Moore, 2003; Zeichner & Bier 2015). Gürol & Akti, (2010) conducted a study on preservice students pertaining to examining the relationship between pre-service teachers' internet self-efficacy and their self-efficacy beliefs on the one hand and the contribution of such beliefs to the "prediction" of their perception of internet self-efficacy on the other hand. Findings revealed that there was a considerable relationship between the participants' internet self-efficacy and their self-efficacy beliefs.

Reviewing the effect of problem-based learning (PBL) activities on pre-service teachers' self-efficacy and critical thinking, Saputro, Atun, Wilujeng, Ariyanto & Arifin (2020) suggested that pre-service teachers' self-efficacy beliefs increased significantly by activities involved PBL compared to those of in-service teachers (not taking part in PBL). Another substantial research that examined preservice and in-service teacher self-efficacy beliefs in the Asia-Pacific region concluded that self-efficacy could enhance the "wellbeing" of both pre-service and in-service teachers (Berg & Smith 2016). In their holistic study, Senler & Sungur (2010) compared pre-service elementary teachers' efficacy beliefs in Turkey and the United States and found that high self-efficacy is more effective on student's learning outcomes than low self-efficacy. An additional study using the Scale for Teacher Self-Efficacy (STSE) devised by Pfitzner-Eden, Thiel, & Horsley (2014), demonstrated that the level of preservice teachers' self-efficacy is subject to varied factors such as lacking/poor teaching experience, previous informal teaching experiences, teacher education program, personal merits and qualities, and teacher-student rapport (Ma & Cavanagh 2018).

2.3. Self-Efficacy and Gender Differences

Before Covid-19, many studies investigated differences between female and male teachers regarding self-efficacy. For instance, in a study by Nejati, Hassani, & Sahrapour (2014), no differences were found between female and male teachers in terms of classroom management. Nonetheless, considering instructional strategies females outshone males while males outshone females in student engagement. A study conducted one year later brought about similar conclusions. That is, female teachers proved to obtain higher instructional strategy efficacy than their male counterparts (Sarfo, Amankwah, Sam & Konin 2015). During the pandemic era, Schaefer, Abrams, Kurpis, Abrams, & Abrams (2020) investigated female adolescents' learning experiences during the Covid-19 new reality entailing first-hand teaching methods in new learning spaces. The researchers offered new insights into transforming the home into a school, extemporization, and adjustment to help make schoolwork in the home space. A study by Yoon (2020), provided recommendations to schoolteachers to use Covid-19 experiences as teaching-learning opportunities about the world. In a similar vein, Gültekin, Erkaplan, Uzun, & Güney (2020) scrutinized the relationship between the self-efficacy beliefs of academic staff concerning the effectiveness of internet-based teaching and their genders, titles, and ages. The researchers found that due to the Covid-19 pandemic's deficiency resulted in face-to-face education, unlike older teachers aged 51 and above who tended to use the Internet for information purposes, the self-efficacy beliefs of younger teachers who systematically preferred computer-assisted teaching methods to traditional teaching methods were much higher. Still, the difference between the level of self-efficacy beliefs of men and women was not substantial.

2.4. Effects of covid-19 pandemic in improving or impairing self-efficacy

While some studies aimed to determine pre-service student teachers' readiness for emergency remote learning, others called for fortifying accommodating the challenging vicissitudes and adapting to the changes effected by the Covid-19 pandemic. For instance, a pioneering study by Burgess & Anderson (2020) inspected the effect of leveraging community partnerships during Covid-19 on digitally foreign learners. Cardullo, Wang, Burton & Dong (2021) carried out a similar study pertaining to explore the relationship between teachers' self-efficacy and factors in the extended technology acceptance model (TAM) in digital teaching during the Covid-19 pandemic, whereby teachers' self-efficacy beliefs were examined in relation to digital teaching. The results revealed many deficiencies in students' communication, collaboration, social interaction, stimulus motives, motivation, engagement, and commitment, not to mention the inadequacy of Internet connection. Most importantly, teachers' self-efficacy beliefs demonstrated shortcomings in the employment of technology such as those in support and resources, information and communication technology infrastructure requisite to digital and remote teaching, and stirring up students' motivation. Haverback (2020) maintained that the transformation of schools into virtual environments on account of Covid-19 affected teachers' confidence negatively. However, the researcher recommended that teachers should use Covid-19 to build their self-efficacy beliefs. Some studies conducted before the pandemic indicated considerable disparities in terms of learning behavioral patterns and access to technology (Yang & Hsieh, 2013). Such parameters have been also investigated during Covid-19. For instance, a study by Nketsia, Opoku, Mohamed, Kumi, Twum & Kyere (2021) revealed that practicum students who lived in urban areas were with higher computer skills and were more autonomous learners than their counterparts living in rural areas. In their descriptive survey research that targeted Ghanaian pre-service teachers' digital readiness and technological literacy for remote teaching, Ogbonnaya, Awoniyi & Matabane (2020) argued that due to the coronavirus pandemic restrictive policies including lockdowns, coerced educational institutions' transition from face-to-face teaching to digital remote teaching generated unparalleled undertakings whereby pre-service teachers experienced faulty and unstable internet connectivity, high-priced data, inconsistent power supply, shortage of practical devices, poor time-management, in addition to inappropriate teaching space that entailed family interruptions. Nonetheless, the research demonstrated only some positive effects. In other words, due to the wide-ranging digital literacy of pre-service teachers, Covid-19 opened door to effective communication and active collaboration with their pedagogical trainers, mentors, and peers. Moreover, online learning flexibility boosted students' learning motivation. Geographical zones, particularly rural and urban, proved to be significant in respect with self-efficacy.

3. METHODOLOGY

3.1. Research Design

A descriptive quantitative study enabled the researcher to examine the attitudes of students in an Arab teacher college, during Covid-19 epidemic. The effect on students' self-efficacy was examined with a quantitative tool –a reliable and valid questionnaire that was distributed to students by the end of their practicum course of 2021 school year.

- Pre-research phase - January-February 2021 – the questionnaire was validated in a pioneering study before being used in the current study
- First phase - April-May 2021 - The questionnaire was distributed online to all students studying in the second semester in practicum courses
- Second phase - June-September 2021 - quantitative data analysis.

3.2. Research Tool

The study variables were measured using an electronic structured questionnaire for self-completion. The questionnaire was designed by researchers based on six studies' questionnaires: Peled (2021); Kim (2020); Kidd & Murray (2020); Donista-Schmidt & Ramot (2020); Hadar et al. (2020); Hebebci, Bertiz,

& Alan (2020). The questionnaire measured the attitudes and perceptions of students in an online practicum experience in the shadow of the epidemic. The questionnaire was divided into 6 categories of closed questions (Likert scale) and a descriptive open-ended question presented at the beginning of the questionnaire.

Category names and the open question:

- **Open Question**: Tell us about your personal experience related to remote teaching (during the Corona pandemic). Please, address as many aspects as possible between them: communication with school staff, mentor teacher, school students, and pedagogic instructor; the quality of lesson planning and execution; your personal sense of self-efficacy and the extent of your personal well-being you felt during the practicum.
- **Category 1**: (Questions 1-16): Socio-demographic characteristics: area of residence, year of study, experience plan, marital status, quality of internet connection, area of practical experience and gender
- **Category 2** :(Questions 17-23): General issues towards practical remote experience
- **Category 3**: (Questions 24-33): Communication with staff (students, teachers, coaches, school, pedagogical instructor)
- **Category 4**: (Questions 34-48): Efficiency of lesson planning and executing
- **Category 5**: (Questions 49-62): Self-efficacy
- **Category 6**: (Questions 63-69): wellbeing-personal well-being

3.3. Research Hypotheses

Two research hypotheses were defined:

- A positive relationship will be found between the sense of self-efficacy and the effectiveness of planning and executing lessons
- A connection will be found between socio-demographic characteristics (area of residence, year of study, experience plan, marital status, quality of internet connection, area of practical experience and gender) and general attitudes towards online practicum experience and the sense of self-efficacy

Research Variables:

The independent research variable was the model of practicum experience during Covid-19. The dependent research variables were students' attitudes towards self-efficacy.

3.4. Research Participants

This study participants were students at a teacher college in north Israel. Students participated in practicum experience courses in various disciplines and tracks, among them students specializing in teaching Arabic, English, Mathematics, Computer Science, etc.

The sample in the current study is a random sample, which refers to students in a teacher college located in an Arab city. 300 students participated in the study. The selection of the sample was done so that participants participated in practicum during Covid-19 period.

3.5. Data Analysis

Quantitative analysis: To test the research hypotheses, averages and standard deviations and Pearson correlations for the research variables were calculated. Data processing and analysis was done in IBM version 23 of SPSS while examining the distribution of the variables. Descriptive variables displayed in percentage (mean, median, common, standard deviation). A comparison was made between variables by t-tests, ANOVA test, linear regression, and logistic regression.

Qualitative analysis: A narrative content analysis approach was employed to analyze the interview data (Goodson 2012; Riessman 2008). We applied the approach of "bathing in the data" (Goodson 2012, p.

40) – the transcripts were read through slowly, recording the main emergent and common ideas, and gauging when the common ideas and conclusions became saturated. An inductive approach was used, which looks like a good fit for the study's methodology for the qualitative data. It helped us achieve descriptions and explanations of the clinical practice of our Arab pre-service teachers.

4. RESULTS

The findings of the study show that pre-service teachers, the practicum students at an Arab college in Israel, perceive themselves as having high professional abilities that were reflected in their ability to adapt fast to the distance learning imposed on them during the corona crisis. They reported about high-quality designed lessons they were able to produce. Lessons included pedagogical innovation components. It can be said that their feeling of high sense of self-efficacy is a result of *five factors*: (1) succeeding to implement innovative teaching methods; (2) classroom management felt more convenient via zoom; (3) the high quality of working conditions in distance learning; (4) good teamwork among all involved in designing the lesson; (5) gender and the geographical residence area of the pre-service teacher. The five factors described below emphasize their contribution to the pre-service teachers' sense of self-efficacy:

4.1. Good teamwork among all involved in designing the lesson

Good lessons were the result of optimal cooperation between all those involved: the mentor teacher, the pedagogical instructor, the student, and the school student. When these occurred, the student's sense of self-efficacy increased. The availability of the pedagogical instructor was high, it was easier to schedule a zoom meeting at different times and not necessarily be within the time limit of at school (from 8am-13pm) as was customary before. The ability to summon several stakeholders to a meeting together on zoom brought up new understandings regarding preparing lessons and led to a better teaching result. This expression proves it: *" …Working with a team was a game changer for me, despite the difficult circumstances, I felt much better this year… my lessons were much better thanks to the cooperative mentor teacher and the availability of my pedagogic instructor…"*

4.2. Succeeding to implement innovative teaching methods leading to professional satisfaction

A sense of self-efficacy was intensified following a lesson that combined techno-pedagogical tools, a new field of study for the students whom, although it required extra effort of learning and preparing, by the end, it was worth. It led to new learning and to quality and interesting lesson. The sense of satisfaction after executing a successful lesson and the ability to learn digital tools and incorporate them into lessons led to a feeling of "I am stronger from a distance." Here are two examples of the expressions that they provided: " …*The process of our practicum has not been easy remotely: planning for the lesson was not easy, even when we planned it was then difficult to measure the goals you set... Finally, my personal feeling at first was inability, but taking the challenges I grow, learned to use techno pedagogical tools… I felt like new knowledge is generated…"; "I'm proud of myself for taking the pressures and keeping up with the constant changes, but it must have been very tiring to move between online education and education within the class…"*

4.3. Classroom management felt more convenient via zoom

The students described in their remarks a sense of independence in classroom management and effective practices towards discipline issues in teaching zoom. These expressions describe this notion: *" …At first, I felt sad and frustrated for not being able to communicate with children… black screens, silent - but over time I started to rely on myself and I managed classes gave them tasks needed to be active, made one child help his friend in a small zoom room… Now, I think that online learning was more comfortable, and the quality of the lessons was excellent and successful…"*

4.4. The high quality of working conditions in distance learning

A good internet connection, several rooms at student's home, many computers provided at student's home - improved the ability for a good lesson. This is shown in the results of the statistical analysis of the questionnaire (see Table 1-2):

The average self-efficacy index of students living alone is significantly higher (3.44) than students who do not have their own private room in their home (3.308). It was also found that there is a relationship between the number of rooms in the home and the student's self-efficacy index, the relationship is statistically significant PV = 0.038. Students with less than 3 rooms at home have the lowest self-efficacy index (3.1335) compared to students with 3-4 rooms at home (3.3670). When the number of rooms in a house is between 5-6, the average self-efficacy index increases (3.4242), while the number of rooms is more than 6, the average self-efficacy index is highest (3.5519). The difference between all groups is statistically significant (POST HOC test was performed in the Scheffe test) and the difference is due to the differences in the self-efficacy index of the students at home with less than 3 rooms compared to more than 6 rooms.

In examining the self-efficacy index among students according to the quality of the Internet connection, it was found that there is a connection to the self-efficacy index. It seems that students who have a good Internet connection at home have a significantly higher self-efficacy index than students who have a poor Internet connection at home. (PV <0.0001)

4.5. Gender and the geographical residence area of the pre-service teacher. The five factors described

The statistical analysis of the questionnaire indicated a relationship between gender and self-efficacy in favor of female students as well as a relationship between the student's area of residence in the country in favor of the center of the country. This is the data analysis (see Table 1-2):

Among female students, the average self-efficacy index is high (3.41) compared with the average self-efficacy index of male students (2.91). This difference between the self-efficacy of females and male was found to be statistically significant (PV=0.002). (Notably, the number of male students is lower than female students. 17 males, 334 female).

The self-efficacy index was examined in the context of the students' area of residence. It was found that students living in the north of the country had a lower average self-efficacy index (3.252) compared to students living in the center and south of the country (3.459 and 3.43, respectively). This gap was found to be statistically significant (PV= 0.023).

In conclusion, it can be said that students report high self-efficacy and the ability to lead a better lesson in distance teaching, in comparison to the face-to-face lesson. In answer to the questionnaire (see Table 1-2) they reported the ability to deliver unique lessons, be creative, and obtain a higher evaluation for their lesson (the grade given to them by the pedagogical instructor). The feeling of satisfaction from the practicum experience while being able to incorporate new techno-pedagogical tools increased the overall teaching experience. They could run a lesson independently, could handle discipline issues, and felt well prepared to be good teachers in the future.

Variables	Efficiency of lesson planning and executing	Wellbeing	Attitude	Students' beliefs regarding their self-efficacy in zoom teaching
Gender				.031
Family status		.023		
Number of children				
Living arrangement		.003		.031
Academic year			.002	
Practicum track				

Number of rooms at home		.000		.038
Living area				.046
Practicum region				
Internet at my area	pv=.052	.000		.001

Table 1. Relationships between socio-demographic variables and dependent variables

I am a responsible person who is able to take responsibility	**No.**	**(%)**
less than usual		
As usual	11	3.1
A little more than usual	33	9.3
Much more than usual	90	25.4
I am able to deal with changes and adapt myself to emergency circumstances	221	62.3
less than usual		
As usual	11	3.1
A little more than usual	52	14.6
Much more than usual	107	30.1
I accept the opinions of others, and take care of those around me	185	52.1
less than usual	11	3.1
As usual	38	10.7
A little more than usual	90	25.4
Much more than usual	216	60.8
I am able to get along with the school staff and environment		
	6	1.7
less than usual	50	14.1
As usual	95	26.8
A little more than usual	204	57.5
Much more than usual		
I am able to pass special lessons	15	4.2
	39	11.0
less than usual	102	28.7
As usual	199	56.1
A little more than usual		
Much more than usual	8	2.3

I will be a great teacher	38	10.7
	96	27.0
less than usual	213	60.0
As usual		
A little more than usual	9	2.5
Much more than usual	35	9.9
I will get high marks in practical applications	100	28.2
	211	59.4
less than usual		
As usual	11	3.1
A little more than usual	44	12.4
Much more than usual	115	32.4
Self-sufficiency from the extent of my progress in practical applications	185	52.1
less than usual	16	4.5
As usual	44	12.4
A little more than usual	101	28.5
Much more than usual	194	54.6
I have high capabilities in integrating technological tools into my applied classes		
	17	4.8
less than usual	43	12.1
As usual	81	22.8
A little more than usual	214	60.3
Much more than usual		
My teaching skills have improved significantly	11	3.1
	46	13.0
less than usual	94	26.5
As usual	204	57.5
A little more than usual		
Much more than usual	14	3.9
I am able to run a class completely and independently	57	16.1
	99	27.9
less than usual	185	52.1
As usual		
A little more than usual	14	3.9

Much more than usual	56	15.8
I am able to adapt the class level according to the individual differences of the students	100	28.2
As usual	185	52.1
A little more than usual		
Much more than usual	11	3.1
I can be a successful future teacher	38	10.7
less than usual	72	20.3
As usual	234	65.9

Table 2. Self-Efficacy Index

5. DISCUSSION AND CONCLUSIONS

The study examined the impact of the Covid-19 crisis on the sense of self-efficacy in the teaching profession among students experiencing their practicum course in a teacher college located in an Arab city. The importance of understanding how pre-service teachers perceive the transition from in-school experience to distance learning led to the results of the study indicating that the sense of self-efficacy is affected by several factors (it was affected positively or negatively). Factors that affected positively on the sense of self-efficacy were: innovation in teaching methods; classroom management through the zoom; 'teaching condition'-number of rooms in the house and degree of internet connection; students' residential area (at the center of the country); good teamwork among all involved in planning lesson. (The higher they were the impact on the sense of competence was positive).

The results of the study correspond with other studies conducted during the Covid-19 period. The studies conducted by Ogbonnaya, Awoniyi & Matabane (2020) and by Cardullo et al. (2021), pointed to challenges in distance learning during the pandemic: unstable internet connection, inefficient teaching space due to family situations, inconsistent power supply and lack of personal computers for household members. These factors negatively affected students' sense of self-efficacy in this study as well.

In addition, this study indicated a positive sense of satisfaction from the practicum experience in light of the pedagogical innovation that incorporates techno-pedagogical tools during online lessons. Students indicated a good ability to conduct a class independently remotely. This positive impact was shown in Gültekin et al (2020), who indicated that novice teachers (in young age) demonstrated higher self-efficacy than senior teachers (in old age) due to the fact that novice teachers adapted quickly to the use of techno-pedagogical tools. The study of Ogbonnaya, Awoniyi & Matabane (2020), showed that the ability of pre-service teachers to fast adaptation increased their motivation to online teaching.

Our results present how pre-service teacher learned during the pandemic to deal with unexpected situations, though not being prepared for it. Taub Center (2020) reported that More than 80% of both Jewish and Arab teachers agreed with the statement "I have learned that I can overcome unexpected difficulties". This experience intensified their sense of self-efficacy and personal well-being (Berg & Smith 2016; Saputro et al. 2020). It is recommended to focus on exposing students to the sudden changes alongside the support they received from the teaching staff around them (e.g., a pedagogical instructor and a mentor teacher) enabling them to mobilize their abilities and thus increased their sense of self-efficacy (Ma & Cavanagh 2018).

The findings of this study may deserve consideration when designing practicum experience models - Policymakers should consider the self-efficacy aspect of pre-service teachers as a factor that may improve or impair and examines hybrid practicum experience model that combines face-to-face teaching as well as distance learning.

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