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## Research paper

## Organizational citizenship behavior (OCB) above and beyond: Teachers' OCB during COVID-19

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## H I G H L I G H T S

- Teachers displayed more citizenship behaviors "during COVID-19" than "before COVID-19".
- Most citizenship behaviors were towards students, less towards school and parents, and least towards colleagues.
- The study generalizes the knowledge on teachers' OCB to crisis times like the COVID-19 pandemic.
- Schools' dependence on OCBs is high in crisis times; therefore, viable preparation programs are inevitable.

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## A B S T R A C T

The study investigated teachers' organizational citizenship behavior (OCB) during the COVID-19 pandemic. The survey's quantitative analysis (N = 299) revealed that Israeli teachers reported more OCBs "during COVID-19" than "before COVID-19," mostly towards students, less towards the school and parents, and least towards colleagues. The qualitative analysis enabled the identification of the unique construct of teacher OCB during the pandemic, composed of six categories: promoting academic achievement, investing extra time, providing support to students, use of technology, compliance with regulations, and compliance with role changes. These findings emphasize the importance of understanding OCB as a context-related phenomenon, especially during crises times.

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## 1. Introduction

The COVID-19 pandemic increased dramatically the sense of uncertainty around the globe (Mahmoud et al., 2022), and impelled governments to impose mass quarantine and stop the common everyday life of individuals and organizations (Shinan-Altman & Levkovich, 2022). The educational system was no exception. Schools that were closed on short notice were forced to face new challenges. The shift from frontal to online teaching forced principals and teachers to manage the everyday life of the school by finding novel ways of conveying knowledge to students, communicating with internal and external agencies, and providing students and faculty members with help and support in a period of social distancing and isolation (Ramot & Donitsa-Schmidt, 2021).

Operating schools in an ambiguous time requires management to encourage teachers not only to fulfill their formal obligations but also to motivate them to contribute above and beyond the call of duty (Somech & Oplatka, 2014). This array of extra-role behaviors is defined as organizational citizenship behavior (OCB), and refers to a set of discretionary behaviors that an individual exhibits to promote the school's functioning and success (Organ, 1997). OCB is especially important in an era of unpredictable changes because the willingness of teachers to contribute, regardless of formal job requirements, frees up scarce resources, helps coordinate activities, and strengthens group cohesiveness. These pro-social behaviors can help schools to be more resilient and more responsive to the crisis and, thus, recover more quickly (Kong & Belkin, 2021).

Only a handful of studies have examined the phenomenon of OCB during the COVID-19 pandemic (e.g., Camacho et al., 2022; Dasgupta, 2022). Shin et al. (2021) found, for example, that family support helps employees cope with emotional exhaustion during pandemics and, consequently, leads to higher levels of citizenship behaviors. Taufiq-Hail et al. (2021) examined the impact of self-

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efficacy and positive and negative feelings on citizenship behaviors of the academic and teaching staff at public and private universities in Bahrain during the COVID-19 lockdown. Their results indicated that the respondents' self-efficacy was the most significant element influencing the tendency of individuals to engage in OCB during the pandemic. A review of the limited research on OCB during COVID-19 reveals that very few studies have been conducted on OCB in schools (Rave et al., 2022), and that most of the studies on employee OCB focused mainly on determining what factors may enhance or hinder individuals from investing above and beyond their responsibilities. Surprisingly, these studies neglect more fundamental questions about the nature of OCB and the willingness to exhibit it during pandemics.

The present study aims to fill this void by examining two crucial questions that remain unanswered. The first question asks: How did the pandemic affect teachers' readiness to exhibit OCB toward their students, colleagues, and/or the school as a whole? Two contradictory predictions can be applied. In one regard, the COVID-19 pandemic combined with the intermittent closing of schools may cause stress that exceeds or drains teachers' resources, resulting in decreased OCB (Hobfoll, 2001; Shinan-Altman & Levkovich, 2022). On the other hand, the social perspective points out that people, especially in times of crisis, reduce selfish behavior in favor of acts of citizenship that benefit the group (Blader & Tyler, 2009; Camacho et al., 2022).

The second question asks about the dimensions of teacher OCB during COVID-19. Overnight, face-to-face teaching and learning were replaced with isolated online communication. Teachers' roles also changed dramatically (Pokhrel & Chhetri, 2021). Consequently, it raises a question regarding the applicability of the existing typologies of OCB. In considering that OCB is a context-related phenomenon, we can anticipate that the unique characteristics of the work environment during the pandemic period will contribute to the development of new components of teacher citizenship behavior. An answer to this question will enable us to understand the extent to which the concept overlaps the common constructs, or a unique construct needs to be developed during a time of crisis.

These two questions were addressed using quantitative and qualitative approaches. The quantitative approach was applied to examine the extent to which teachers invest in citizenship behaviors during the period of the pandemic as compared with ordinary times, while the qualitative methodology, which is not based on existing constructs, allowed us to examine the nature of the OCB concept by using a bottom-up approach (Strauss & Corbin, 1990).

## 2. Theoretical background

### 2.1. Teacher OCB

Research on teacher OCB has been commonly grounded in theories developed in Organizational Behavior, and therefore scholars attempting to explore the phenomenon of teacher OCB adopted existing definitions in the non-educational literature (e.g., Duyar & Normore, 2012). Most researchers referred to Organ's seminal work and applied his approach to the school context. For example, based on Organ's (1988, 1997) work, Jimmieson et al. (2010) defined OCB as "... employee behavior that is discretionary and not formally rewarded, but which supports the social and psychological functioning and effectiveness of an organization." (p. 454). The only definition that addressed specifically the school context was developed by Dipaola and Hoy (2005) who defined teacher OCBs as "... teachers voluntarily going out of their way to help their students, colleagues, and others as they engage in the work of teaching and learning." (p. 390). Nevertheless, all definitions have much in common. First, the behavior must be

voluntary, meaning that it must not be a part of formal job duties, nor should it be formally rewarded, and disengagement from the behavior cannot be formally penalized. Secondly, citizenship behaviors should be directed to or seen as contributing to the functioning and effectiveness of the organization, not just those that occur within the school (Jackson, 2009).

To better understand the nature of teacher OCB, several studies have attempted to explore the domains of this construct (e.g., Oplatka, 2006; Somech & Drach-Zahavy, 2000). Two main approaches were adopted: the content and the target perspectives. The first focused on identifying types of pro-social behaviors that teachers perform for the benefit of the school. Researchers who employ this approach usually use typologies developed for organizations in general and adjusted them to the educational setting context (e.g., Polat, 2009). For example, Bibi et al. (2021) examined OCBs among secondary school teachers using Konovsky and Organ's (1996) five-category typology: altruism, courtesy, sportsmanship, conscientiousness, and civic virtue. A different method of classification focused on the target of the OCB (Somech & Drach-Zahavy, 2000; Williams & Anderson, 1991). For example, Sesen and Basim (2012) distinguished between two levels of analysis for describing teacher OCB by adopting the two-dimensional classification developed by Williams and Anderson (1991): OCBI (OCBs toward individuals in school), referring to teachers' behaviors toward colleagues, students, and their families. Teachers' OCBI might be helping a colleague who has a heavy workload or staying after school hours to help a student with learning materials; and OCBO (OCB toward the organization) referring to teachers' behaviors that benefit the organization, such as making innovative suggestions, or organizing special social activities for the school.

In the present study, we adopt the scale of Vigoda-Gadot et al. (2007), which was developed in the context of school, and is similar to the two-dimensional taxonomy presented by Williams and Anderson (1991): OCB-Individual represents behaviors that the faculty intentionally directs at helping a specific person, while the second, OCB-Organization, pertains to citizenship behaviors for the benefit of the entire school as a whole.

### 2.2. Teacher OCB during COVID-19

In terms of the first question, two conflicting explanations can be offered regarding the willingness of teachers to go above and beyond the call of duty during COVID-19. Since a pandemic increases the sense of uncertainty, individuals may experience higher levels of anxiety and depression, and, consequently, feel as if their resources, like energy or time, are being threatened or even depleted (Shinan-Altman & Levkovich, 2022). For example, Klusmann et al. (2023) found that teachers and principals experienced their work during the COVID-19 pandemic as predominantly stressful. The findings showed that half of the sample described the situation as harmful, using adjectives such as "exhausting" or "frustrating." Pressley and Ha (2021) found that teachers who were teaching virtually experienced the lowest levels of efficacy compared to teachers teaching in hybrid or all in-person model. According to the conservation of resources (COR) theory (Hobfoll, 2001), for protecting or preserving their resources, teachers may tend to decrease their investment in voluntary acts, such as citizenship behaviors, that are not an obligatory part of their job requirements (Somech, 2016). Additionally, studies have shown that negative feelings tend to suppress or inhibit altruistic or helping gestures (e.g., Agho et al., 1992). Individuals high in negative emotions are generally more likely to have a negative view of themselves and others and, hence, decrease their tendency to perform helping and pro-social acts (George, 1990).

On the other hand, however, studies have shown that, especially

during times of crisis, individuals are inclined to behave altruistically and to help others, even at their own expense (Ellemers et al., 2013). The social motivation perspective (Blader & Tyler, 2009; Simon, 1990) argues that although rational self-interest precludes certain types of behaviors (OCBs) that provide no obvious benefit to the individual, the fact that they actually do occur indicates that some net advantage is associated with them. For example, in times of emergencies, such as COVID-19, people are ready to shift their focus from their selfish immediate benefits to the good of the group by exhibiting citizenship behaviors such as helping and supporting. Indeed, Bochicchio et al. (2021) found evidence of greater pro-social and cooperation behaviors during the current pandemic's lockdown.

This conflictual picture emphasizes the importance of understanding how teachers react to times of crisis, such as COVID-19. Did the severe changes in daily life and in the work environment motivate teachers to invest more in their students, colleagues, and the school as a whole, or did these circumstances decrease their willingness to go above and beyond the call of duty? This is crucial, as research has consistently shown that teacher OCB contributes to school functioning and success (Jimmieson et al., 2010).

The second aim of this study is to explore the components of teacher OCB during COVID-19. The phenomenon of OCB does not occur in a vacuum, but rather grows within a context (Ehrhart & Naumann, 2004). Hence, citizenship acts can vary depending on the circumstances, such as the nature of the job or the organization's characteristics and expectations (Jackson, 2009). In the few studies published during the time of the pandemic that examined OCB, all the researchers utilized existing typologies (e.g., Rave et al., 2022). This perspective assumes that OCB typologies developed in ordinary times reflect the nature and construct of the concept during the COVID-19 period, and thereby ignores the possibility that its nature may be transformed by the changing circumstances. We suggest that with the dramatic changes in the work environment, especially in educational settings, it is possible that teacher OCB displays additional or different aspects during pandemic days compared with regular days.

It is well known that teaching is a boundaryless and messy profession (Duyar & Normore, 2012). During COVID-19, defining what is an OCB and what is a role-regulated task is even more challenging (Pokhrel & Chhetri, 2021). Rapidly, teachers had to adapt themselves to new modes of teaching and learning. Face-to-face interactions with students, colleagues, and management were replaced by isolated work at home using online communication technology (Ramot & Donitsa-Schmidt, 2021). With these new in-role requirements, teachers may have encountered new situations that would have motivated them to exhibit extra-role behaviors that are not required but can be beneficial to the well-being of students, colleagues or the school as a whole. Identifying the set of citizenship behaviors that teachers exhibit during the pandemic may allow us not only to refine the meaning but also the structure of the concept. Future research based on the current findings may enable identifying the unique factors that encourage or inhibit teachers' willingness to invest in citizenship behaviors in times of crisis.

### 3. Method

To answer the two research questions, we used a questionnaire consisting of two parts. The first was an open-ended question that asked the participants to describe citizenship behaviors exhibited by their teaching peers during COVID-19. The second part included a validated scale measuring teachers' OCB.

#### 3.1. Setting

The Israeli educational system is steered by the central

government, through the Ministry of Education. The school curriculum is uniform and mandatory throughout the whole system. Similarly, finances, administration, and organization, as well as teachers' education, are determined at the government-level (Iram & Schmida, 1998). The main components of the in-role of teachers are: (a) teaching the subject matter by following the curriculum, and matching the teaching methods to the class level; (b) evaluating student performance; (c) being on duty; and (d) taking part in extracurricular activities during one's schedule and attending weekly or monthly pedagogical meetings (Oplatka, 2006). Similarly, in common with descriptions of teaching in the U.S.A. and European countries, the major task of Israeli teachers is pedagogical and instructional in nature (e.g., Socket, 1993).

#### 3.2. Sample and procedure

Data were collected over several weeks, a few months after the last lockdown of schools (2021) via a crowdsourcing platform that specializes in online surveys and data gathering. The questionnaires were sent online to an enlisted database of teachers in Israel affiliated with all levels of schooling (i.e., elementary, middle and high schools) representing all district schools in the country. Participation was voluntary and anonymous. Participants gave their consent by answering the online questionnaire. A total of 299 participants completed the questionnaire, of whom 230 were women (77%). The demographic characteristics of the participants were: age ( $M = 42.3$ ,  $SD = 12.3$ ); years of experience ( $M = 10.6$  years,  $SD = 9.8$ ); certified/senior teacher or other diploma ( $N = 56$ , 18.7%); bachelor's degree ( $N = 129$ , 43%); master's degree ( $N = 111$ , 37%), and three had a PhD (1%).

#### 3.3. Qualitative study

The aim of the qualitative part was to capture what teachers viewed as OCB during COVID-19 using a bottom-up approach (Strauss & Corbin, 1990). Therefore, the first question in the questionnaire was an open-ended one so that the participants would not be affected by the close-ended question that used a validated OCB scale. The open-ended question was phrased as follows:

The spread of the COVID-19 virus posed new and complex challenges for schools. This significant period, which included, among other things, distance learning, sometimes caused teachers to do things that were not part of their formal role definition but 'above and beyond'. These could be actions for the benefit of students, colleagues and/or the whole school. We ask you to list behaviors and actions that are not part of the formal role definition that teachers in your school performed during the COVID-19 epidemic, and do not perform on routine days (before COVID-19).

#### 3.4. Quantitative study

We used the quantitative part of the study to examine the extent to which teachers invested in citizenship behaviors during the pandemic vs. the routine time. To measure teachers' OCB, we used an 18-item scale developed by Vigoda-Gadot et al. (2007) directed specifically to the educational context. The scale is composed of two dimensions: OCBI that is directed to a certain individual at school (9 items; e.g., "The teachers in our school help others who have been absent"),  $\alpha = 0.91$  (during routine);  $\alpha = 0.90$  (during COVID-19); and OCBO, which is directed to the school as a whole (7 items; e.g., "The teachers here offer innovative suggestions to improve school life"),  $\alpha = 0.76$  (in routine) and  $\alpha = 0.72$  (during COVID-19). Two items of the OCBO were discarded to achieve better reliability value ("The teachers here coast toward the end of the day" (r), "The teachers here complain about insignificant things at work" (r)). The



whole scale's reliability was 0.91 (in routine) and 0.90 (during COVID-19). The respondents used a five-point scale ranging from 1 (very seldom) to 5 (very often).

### 3.5. Data analysis

#### 3.5.1. Qualitative analysis

To understand teachers' perceptions regarding OCBs during COVID-19, we used exploratory data analysis. Exploratory data analysis is used to investigate a new area by gathering open-ended data aimed to generate new notions and understandings about it (Grillo & Kier, 2021; Stebbins, 2008). Based on the OCB literature, the two researchers of the current study with an independent researcher categorized the data of 835 statements into two approaches: The first referred to the *beneficiaries* of those behaviors (*Who was it for?*) (Oplatka, 2006). Some statements made explicit reference to the beneficiary (such as, "Emotional support to parents"), while in other statements the beneficiary was implied (such as, "Providing small group tutoring" implied that the beneficiaries were students). The second approach referred to the *content* of the behavior (*What was done?*). We used an open coding process of generalizing behaviors of common characteristics (Strauss & Corbin, 1998). Each category of behavior was then coded again for sub-categories. After the three researchers participating in the coding process reached an agreement regarding the categories, one independent researcher and one of the researchers of the study coded the statements with an inter-rater agreement of Cohen's Kappa 0.92. After discussing the remaining 8% of the statements, where there was not an initial agreement, an agreement on the coding was achieved and the remaining statements were coded.

#### 3.5.2. Quantitative analysis

We use descriptive statistics to present the means and standard deviations of the overall OCB questionnaire and its subscales OCBI and OCBO before and during COVID-19. We compared the changes in OCB and its subscales between the time before COVID-19 and during the pandemic, using separate paired-samples t-tests. In addition, we computed Pearson correlations to evaluate the association of these ratings before and during COVID-19.

Next, we compared the changes on each subscale over time to evaluate whether the change between the subscales had similar or different magnitude. To that end, we tested the time-by-subscale interaction in a mixed-effects linear model, where participants were modeled as random factors to control for within-person variance. Time, where "before COVID-19" served as the reference variable, and OCB dimension, where OCBO served as reference, were the independent variables in the model.

Lastly, we evaluated the change on each item of the OCB questionnaire from "before COVID-19" to "during COVID-19" using non-parametric Wilcoxon tests for paired observations. *P*-values were adjusted for multiple comparisons using Bonferroni correction. We used 2-tailed with  $\alpha < 0.05$  probability for a dimension-I error in all the tests' analyses. Analyses were conducted using the "stats" and "lmerTest" packages in R (Kuznetsova et al., 2017).

## 4. Findings

### 4.1. Teachers' perceptions regarding OCB during COVID-19

#### 4.1.1. Teachers' OCB according to beneficiaries

To understand who the receivers of the OCBs were, we categorized the OCB statements according toward whom the behavior was aimed – their beneficiaries. Four main groups of beneficiaries were identified: students, colleagues, parents, and the organization as a whole. We present the distribution of beneficiaries in Fig. 1.

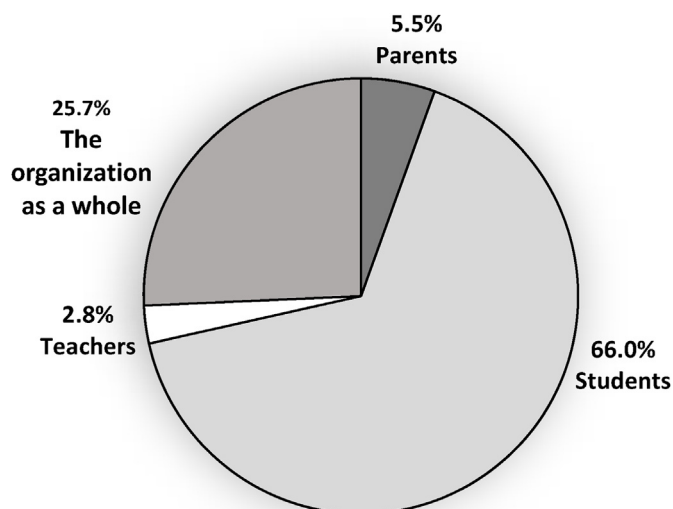


Fig. 1. Distribution of statements by beneficiaries (N = 835).

As seen in Fig. 1, two-thirds of the OCBs were aimed at students ( $n = 551$ ). Statements included helping students, both as a group and as individual students, in various ways – including academically, socially, or emotionally. Teachers referred to more open lines of communication with students, including the use of WhatsApp (texting application) and personal phone calls. The second most frequent beneficiary group was the organization as a whole, with statements such as "Staying extra hours at school" or a general statement of behavior that was not aimed at someone or a specific group in particular ( $n = 215$ ), such as: "Helping others with technical issues of Zoom." Parents were the third group of beneficiaries ( $n = 46$ ). Teachers referred to more open and frequent communication lines with parents, during all hours of the day, to inform parents regarding schooling, to assist parents emotionally, and to help them assist their child in varied ways. Some teachers mentioned helping families with acquiring digital equipment for distance learning purposes and even basic needs, such as food supplies, when families were isolated due to COVID-19 illness or exposure. The smallest group of statements referred to colleagues as beneficiaries ( $n = 23$ ), noting assistance in technical issues and substitution for isolated staff members.

Next, we present the major categories, and then, for each category, we present the sub-categorization with quotation examples.

#### 4.1.2. Teachers' OCB according to content of behavior

We identified six main categories involving teachers' acting above and beyond their role definition: promoting academic achievement, investing extra time, providing support to students, use of technology, compliance with COVID-19 regulations, and compliance with role changes (see Fig. 2).

*Promoting academic achievement.* This category included teachers' statements that involved behaviors and actions aiming to promote students' academic achievements either directly or by aiming to improve teaching practice and planning. During COVID-19 many rapid changes took place in the teacher role and in the teaching work itself, particularly in distance teaching. To address this challenge, teachers provided extra tutoring (e.g., "Preparing private tutoring for students in isolation"). The teachers also made sure students had the appropriate study materials and books, and that parents were kept informed (e.g., "Sending daily summaries to parents about what was learned each day via WhatsApp").

Teachers needed to quickly adjust and adapt their lesson planning and lesson performance to distance teaching, despite the lack

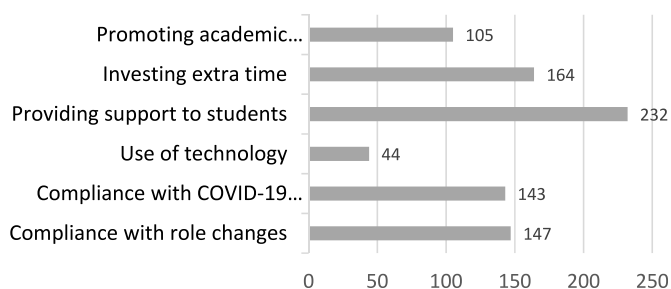


Fig. 2. Frequency of statements by category (N = 835).

of guidance (“Learning a new field without being prepared in advance”). They also increased the length of lessons to make sure students understood the material (e.g., “Providing longer lessons because students find it hard to understand via Zoom”). In terms of pedagogy, teachers learned to use more engaging features to maintain students’ interest in the lesson (e.g., “Using videos that combine reading stories”).

*Investing extra time.* The frequent changes during the COVID-19 resulted in a greatly increased workload for teachers, who had to change the way they teach, the way they plan lessons, and their communication modes and frequency with students, parents and colleagues (in particular during distance teaching). Additionally, this time of lack of certainty caused teachers to function as pillars of the school community, providing not only teaching, but also information, emotional support, and general help for families. In that regard, teachers reported that they took on an additional workload, above and beyond their regular workload expectations. They reported working “around the clock,” with lines of communication open constantly (e.g., “Texting and phone calls all day and night, even in non-conventional hours”). They reported volunteering their time in many ways (e.g., “Dedicating my time to guiding students about how to access the online assignments and how to submit them”). The teachers also reported that they invested great effort in their own professional learning to be able to teach effectively in the new environment (“Many hours of learning and experimenting with the digital tools suitable to distance teaching”).

*Providing support to students.* Supporting students is by far the largest category of OCB referred to by teachers. Teachers stated that they extensively helped students to deal emotionally with the challenges of the COVID-19 time, including lockdowns, being separated from friends and extended family, fear of the illness, etc. Research reveals that many students as well as their parents experienced anxiety, loneliness, depression, and other emotional strains (e.g., Spinelli et al., 2020). In these difficult times, teachers acted as stable and reliable adult figures who could provide such support. They provided emotional support first and foremost, but also social support, by maintaining personal relationships with students, and helping the entire family by ensuring they had the technological means to learn, parental emotional support, and even basic needs such as food vouchers. All of these behaviors are not part of the formal role description, but actions teachers took upon themselves beyond their formal role in order to help students. Many of them reported providing emotional support to students (“Talking to students personally about their mental and emotional state”). They reported that communication became more personal overall (e.g., “Calling students to wake them up and tell them to get in the Zoom lesson”). Teachers also addressed the social isolation in a variety of ways, such as by organizing social gatherings via Zoom or in open spaces (“We organized social meetings during the evenings via Zoom, movie screenings, etc.”). The support sometimes extended beyond the individual student and included the entire family: “Bringing food to a family in isolation.”

*Use of technology.* The most significant core feature of distance teaching during COVID-19 was the use of technology. Teachers were required to teach via Zoom. Within this requirement, they also took actions that were beyond their role, including additional learning how to use the technology and new applications in their lessons effectively (“I adapted all my lesson plans to the distance teaching by myself”) and helping other teachers in doing so (“Guiding teachers about the technology”). The teachers also helped parents and students to use the Zoom and other applications (“Providing technical help to use the devices”), and referred to using Zoom in communicating with parents, students, and other staff (“Holding personal Zoom meetings”).

*Compliance with COVID-19 regulations.* This category included statements about teachers’ behaviors regarding the health regulations during COVID-19, when schools operated on-site. Teachers were instructed by the Ministry of Education (MOE) to maintain many health rules, such as ensuring that students wore face masks, social distancing, and checking health notes. Although the regulations came as instructions from the MOE to teachers rather than an option, teachers still referred to complying with these regulations as going beyond the scope of their in-role behavior. They referred to keeping track of COVID-19 vaccinations, tests and notes (“Checking who got vaccinated and who did not”), enforcing health regulations (“Making sure students did not pass learning material among themselves”), and a variety of other issues relating to COVID-19 (“Keeping track of students’ isolations and recovery dates”) as their extra-role behavior.

*Compliance with role changes due to COVID-19.* The COVID-19 period brought about many changes in different areas of schooling and teaching. Many of these changes were top-down instructions with which the teachers were required to comply, such as the move to distance teaching via Zoom. Nevertheless, many teachers viewed their compliance with these instructions as OCBs. Among these changes were classroom structure and locations: for example, when students returned to school, to minimize the spread of the virus, classes were split into half-classes, namely “learning capsules.” Since there were not enough rooms in the schools for this change, some classes took place in alternative places (“Teaching outside in the heat because of the capsules”). The teachers’ time schedule was also altered (“Having staff meetings in the evenings”). Teachers also referred to the need to communicate with students via Zoom, having to teach online and learn how to do so without proper guidance (“Learning how to conduct tests online”) and use technology for teaching and for reporting purposes (“Filling out many computerized forms”) (see Table 1).

#### 4.2. Changes before and during COVID-19

Significant differences from “before COVID-19” to “during COVID-19” emerged for OCB ( $M = 3.96$ ,  $SD = 0.97$ ;  $M = 4.33$ ,  $SD = 0.96$ , respectively;  $t_{(299)} = 7.20$ ,  $p < .0001$ ), OCBI ( $M = 3.89$ ,  $SD = 1.13$ ;  $M = 4.37$ ,  $SD = 1.10$ , respectively;  $t_{(299)} = 8.00$ ,  $p < .0001$ ) and OCBO ( $M = 4.05$ ,  $SD = 0.92$ ;  $M = 4.27$ ,  $SD = 0.96$ , respectively;  $t_{(299)} = 4.41$ ,  $p < .0001$ ), with higher ranking of all measures “during COVID-19” than “before COVID-19.” Ratings of OCB scale and subscales before and during COVID-19 strongly correlated, with Pearson’s  $r$  coefficients ranging between 0.54 and 0.59 (Table 2).

Results of the mixed-effects linear model showed a positive main effect for Time ( $B = 0.22$ ,  $95\% CI = 0.11, 0.33$ ,  $p < .0001$ ) and a significant Time\*Dimension interaction effect ( $B = 0.27$ ,  $95\% CI = 0.11, 0.42$ ,  $p < .001$ ), meaning that the overall increase in OCB ratings was augmented for OCBI ratings, above and beyond the increase in OCBO ratings. A significant main effect emerged for the OCBI dimension ( $B = -0.17$ ,  $95\% CI = -0.28, -0.06$ ,  $p < .01$ ), meaning that the gap in the ratings of OCBI and OCBO before

**Table 1**  
Categories and sub-categories of teachers' OCB during COVID-19.

Category	Sub-category	No. Of statements	Examples
<b>Promoting academic achievement</b>	Changes to the teacher role	38	Delivering interactive and more creative lessons
	Individual or small group tutoring	18	Providing private tutoring in the afternoons and evenings on Zoom
	Making sure students have the study materials	8	Going to students' homes by car to deliver study books
	Pedagogical lesson planning	30	Adjusting the lesson plans creatively to suit online learning
	Professional learning	11	Many hours of trying new digital tools suitable for online distance learning
<b>Total</b>		<b>105</b>	
<b>Investing extra time</b>	Sub-category	No. Of statements	Examples
	Frequent communication in general	9	Texting and calling at all hours including at night.
	Frequent communication with parents	17	Personal phone calls to parents on a daily basis
	Frequent communication with students	26	Calling many students every day
	High workload	59	Delivering many private and small group lessons
	Working overtime in varied hours of the day and weekends	53	Having to teach lessons in the evening to allow for the students' family computer to be used at different times for different family members (as many families have more than one child who is a student but only one computer)
<b>Total</b>		<b>164</b>	
<b>Providing support to students</b>	Sub-category	No. Of statements	Examples
	Class social bonding	30	Social gatherings in the evenings in open spaces
	Emotional support	145	Extensive dealing with emotional issues, sometimes referring to professional help
	Help at home	18	Ensuring that families have the technological equipment for learning
Personal communication	39	Personally reaching out to absentees after each lesson	
<b>Total</b>		<b>232</b>	
<b>Teachers' use of technology</b>	Sub-category	No. Of statements	Examples
	Online teaching	31	Learning new online applications for the lessons
	Providing technical support	9	Volunteering to teach my colleagues about how to use digital technologies
Communication via Zoom	4	Talking to parents via Zoom	
<b>Total</b>		<b>44</b>	
<b>Compliance w/COVID-19 regulations</b>	Sub-category	No. Of statements	Examples
	Checking Covid-19 tests and vaccinations (green pass)	40	Checking which students performed a Covid-19 test
	Checking health tests	18	Collecting health notes daily
	Enforcing rules (masks, social distancing, etc.)	50	Ensuring all students wear masks at all times
	Other Covid-19 matters	17	Taking students' temperature
Reporting isolations	18	Reporting to parents about exposure to a student who tested positive to Covid-19	
<b>Total</b>		<b>143</b>	
<b>Compliance w/role changes due to COVID-19</b>	Sub-category	No. Of statements	Examples
	Administrative work	6	Inserting a lot of data into the computer system
	Changes in location/time/group of students	28	Teaching half the class in "capsules" and having to run from one half-class to another
	Communicating via Zoom	17	Talking to students via Zoom
	Online teaching	66	Having to teach via Zoom without proper guidance
	Technology – using, learning and assistance	30	Learning how to conduct tests online
<b>Total</b>		<b>147</b>	
<b>Grand total</b>		<b>835</b>	

COVID-19 was statistically significant in favor of higher OCBO scores. A post-hoc independent *t*-test between the subscales rating during COVID-19 revealed significant differences in the opposite direction, with higher OCBI ratings ( $t_{(299)} = 2.07, p < .05$ ). The results are summarized in Table 3 and visualized in Fig. 3.

Examining differences in OCB items, statistically significant differences emerged on all items – with higher ratings during COVID-19 – except for items 10 (“The teachers here give advance notice when unable to come to work”) and 18 (“The teachers here

conserve and protect organizational property”), which were excluded from the scale. Of note, item 18 significantly increased before adjusting for multiple comparisons, but did not maintain its statistical significance after the adjustment (Appendix).

### 5. Discussion

The current study aimed to explore OCB during COVID-19 pandemic from the teachers' perspective. We, therefore, asked

**Table 2**  
Descriptive characteristics and changes in OCB ratings before and during COVID-19.

Variable	Mean (SD)		r	t <sub>(299)</sub>	p-value
	Before COVID-19	During COVID-19			
OCB	3.96 (0.97)	4.33 (0.96)	0.58*	7.20	<.0001
OCBI	3.89 (1.13)	4.37 (1.10)	0.54*	8.00	<.0001
OCBO	4.05 (0.92)	4.27 (0.96)	0.59*	4.41	<.0001

\*p < .0001.

Note: Pearson correlations (r) evaluated the association of each of the scales (OCB, OCBI, OCBO) before and during COVID-19.

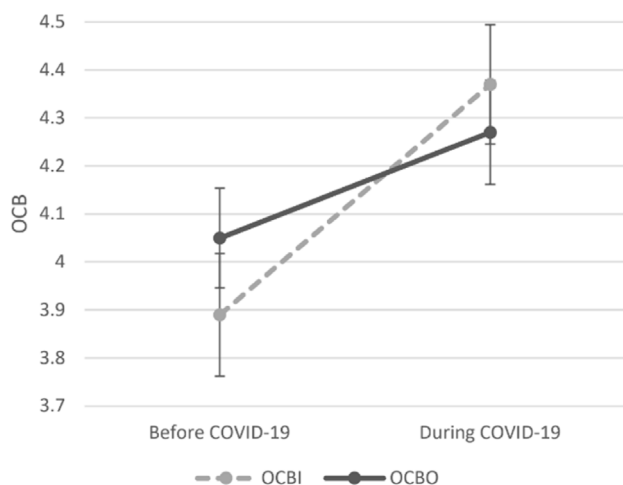
**Table 3**  
Mixed-effects linear regression with OCB ratings as the dependent variable.

Variable	B	95% CI
Dimension: OCBI	-0.17*	-0.28, -0.06
Time: During COVID-19	0.22***	0.11, 0.33
OCBI*During COVID-19	0.27**	0.11, 0.42

\*p < .01.

\*\*p < .001.

\*\*\*p < .0001.



**Fig. 3.** OCB dimensions before and during COVID-19  
Note: OCB – Organizational citizenship behavior. OCBI – Organizational citizenship behavior toward an individual. OCBO – Organizational citizenship behavior toward the organization.

two fundamental questions. The first was: “How did the pandemic affect teachers’ readiness to exhibit OCB toward their students, colleagues, and/or the school as a whole?” The quantitative part of the study revealed that teachers exhibited significantly more OCBs “during COVID-19” compared to “before COVID-19.” This finding, which was true for both types of OCB (OCBI and OCBO), but also for the other two additional beneficiaries, parents and colleagues, may be explained by the social perspective, which asserts that in times of crisis people tend to diminish their selfish behavior in favor of citizenship behaviors for the sake of the collective, such as taking a proactive role in different citizenship initiatives (Blader & Tyler, 2009; Camacho et al., 2022).

The qualitative part of the study adds more detailed evidence about the types of OCB. It revealed that 66% of the 835 statements describing teachers’ OCBs were oriented to the students, i.e., OCBI (e.g., “personally reaching out to absentees after each lesson,” “providing private tutoring in the afternoons and evenings on Zoom”) while only 25.7% of the statements were related to the

school, i.e., OCBO (e.g., “verification of health declarations,” “being involved in extracurricular programs”). The prevalence of OCBI toward the student supports previous findings asserting that teachers are mostly involved in OCB towards students (Somech & Oplatka, 2014). It is evident that during the COVID-19 pandemic, this phenomenon was amplified as teachers had to maintain “at least a minimum of communication with students and supporting students’ learning and development” (König et al., 2020, p. 608).

Referring to the beneficiaries of the statements, it is somewhat surprising that only a very small percentage of statements were oriented to colleagues (2.8%) (e.g., “volunteering to teach my colleagues about how to use digital technologies,” “substituting for teachers in teaching subject matters”). Although teaching is considered sometimes to be a “lonely” profession (Farber, 1984, 1991), it is also known for collegiality, collaboration and cooperation (Hargreaves, 2019). It may be that the working conditions during the COVID-19 pandemic exhausted the limited resources of the teachers (e.g., time and availability), thus leaving no room for their collaborative and collegial relationships with the principal and their peers. In a similar vein, when schools face limited resources or shortages of them, they primarily care for sustaining their teaching routine with minimal disruption. Hence, they give up teamwork with their colleagues – a critical condition to improving their instruction and professional development, leaving them in isolation and with feelings of loneliness (Somech & Drach-Zahavy, 2007).

The finding of four different groups of beneficiaries of teachers’ OCB is one of the contributions of this study to the research literature on OCB in educational settings. Applying two main beneficiaries, OCBI and OCBO (Williams & Anderson, 1991), or three, OCBI, OCBI (toward teachers), OCBO (Somech & Drach-Zahavy, 2000) does not fully capture the spectrum of the groups that have been affected by teachers’ OCBs: students, colleagues, parents and the school. The reference to parents as an independent group, the beneficiaries of 5.5% of the statements, emphasized the role teachers took in supporting them. Parents, and families in general, felt much pressure and emotional strain (Spinelli et al., 2020), combined with uncertainties regarding their own health and economic situation, and the teachers were there to support them in these harsh times. Teachers’ citizenship behaviors, such as maintaining frequent communication with parents, supporting them emotionally, and even with fulfilling basic needs like food supplies, was salient during the pandemic, while the teachers themselves faced intensive demanding conditions since they had to work from home while their own children were present (Ramot & Donitsa-Schmidt, 2021). Though this OCB toward parents was salient during the pandemic, this finding may be true for routine times as well. Teachers maintain more open communication channels with parents during the academic year, and because the boundary between school times vs. times outside of school has become blurry (Asterhan & Rosenberg, 2015), teachers may exhibit more voluntary behaviors toward students’ parents. A typology that looks at the groups based on their school hierarchical levels may leave out interest groups that are affected by teachers’ citizenship behaviors influencing those groups’ performance, well being and satisfaction. We encourage conducting more research to evaluate the magnitude of teachers’ OCBs toward parents in both routine and crisis times.

The second question of the study dealt with “the dimensions of teacher OCB during COVID-19,” inquiring whether the existing typologies of OCB hold in times of crisis, such as COVID-19, or whether new typologies may arise. The qualitative study revealed six main categories of behaviors that teachers contemplated as OCBs: promoting academic achievement, investing extra time, providing support to students, use of technology, compliance with COVID-19 regulations and compliance with role changes. Two of the categories, “promoting academic achievement,” by adopting



changes to the teaching role and considering pedagogical lesson planning or tutoring in individual or small groups of students, and “providing support to students,” such as emotional support and personal communication that reflect *helping behavior*, are forms of citizenship behavior (Podsakoff et al., 2000). These types of behavior refer to “voluntarily helping others with, or preventing the occurrence of, work-related problems” (ibid., p. 516). The COVID-19 pandemic caused serious problems that required solutions with no time to adjust to the new situation, particularly during the lockdown periods (Karasmanaki & Tsantopoulos, 2021). Under these circumstances, teachers showed helping behavior by providing social and emotional support toward the students and advancing them in their academic achievements. This type of extra-role behavior manifests the kind of citizenship behavior that Organ (1988) called *altruism*.

The two categories of compliance, “compliance with COVID-19 regulations” and “compliance with role changes,” correspond with *organizational compliance* (Podsakoff et al., 2000), originally called *generalized compliance* (Smith et al., 1983). This dimension refers to one’s “internalization and acceptance of the organization’s rules, regulations, and procedures, which results in a scrupulous adherence to them, even when no one observes or monitors compliance” (Podsakoff et al., 2000, p. 517). This behavior reflects the obedience to rules, guidelines, and instructions due to COVID-19 pandemic. It is also known as “organizational obedience” (Graham, 1991), and demonstrates teachers’ extra work in times of crisis, and what a good schoolteacher is supposed to do. While during routine times compliance refers to obeying school rules and regulations “even when no one is watching,” in the current study teachers provided evidence of two different types of compliance that are beyond the obeying of rules and regulations: compliance with COVID-19 regulations and compliance with role changes that are beyond replacing a colleague teacher. Teachers described new roles, such as “nurse” or “guard at the school entrance,” whose job is to approve or deny a student’s entitlement to enter the school. In times of crises, such as the pandemic, the teachers’ citizenship behavior seemed to be more initiative and proactive since they had to react to immediate needs and unknown realities for which they were not trained or prepared.

The categories “investing extra time” to maintain frequent communication with all stakeholders and the two types of compliance are reflected in the *conscientiousness* dimension of OCB (Podsakoff et al., 1990). The teachers strove to assist the students, their parents, their colleagues and the school itself in coping and performing during turbulent times. The teachers seemed to go well beyond minimally required levels of behaviors (Organ, 1988). It should be noted, however, that the teachers’ devoting extra time was occasionally experienced as high workload manifested, among other things, in delivering many private and small group lessons.

The OCB categories that the teachers used to describe their colleagues in the school attest to the high prevalence of behaviors oriented toward the students, such as promoting academic achievement, investing extra time, providing support to students, and use of technology in online teaching. Indeed, the qualitative study revealed that two-thirds of the OCBs were aimed at students, i.e., OCB toward the student (OCBI). The most frequent behavior (N = 232 statements out of 835 statements) was attributed to “providing support to students” category, which is congruent with the quantitative finding that the overall increase in OCB ratings was augmented for OCBI ratings, above and beyond the increase in OCBO ratings. In addition, the gap in the ratings of OCBI and OCBO before COVID-19 was statistically significant in favor of higher OCBO scores, thus providing additional support to the finding that teachers’ main OCBs during COVID-19 was toward the students, as individuals or as a group. The second most frequent scale was also

related to students; “investing extra time” (N = 164 statements), which included subscales referring to frequent communication with students, parents and in general.

Teachers showed citizenship behavior that seems to stem from their sincere concern for their students in the turbulent and uncertain times caused by the pandemic (König et al., 2020; Ramot & Donitsa-Schmidt, 2021). Their behavior reflected a genuine concern for the collective rather than for their own interests during the COVID-19 crisis. Though in times of uncertainty and anxiety, such as experienced during the pandemic, workers tend to decrease their level of discretionary behavior to preserve their resources (Mahmoud et al., 2021), the teachers in the current study showed a higher level of OCB during COVID-19 as compared to the time prior to the pandemic. In line with COR theory (Hobfoll, 2001), one would expect that the teachers would reduce their level of voluntary acts, such as OCBs, to save their resources for tasks that are in-roles. However, teachers’ move from in-person teaching to remote teaching, usually from their homes, may have granted them a higher degree of job autonomy, which is a vital resource for dealing with job stressors (Bakker et al., 2007; Somech, 2016) in harsh conditions such as the pandemic. Thus, teachers for whom remote teaching was perceived as enabling greater job autonomy might have felt the autonomy as a resource buffering the positive link between their OCB and strain (Hobfoll, 1989) resulting from the pandemic. The assertion about the impact of job autonomy granted from remote teaching might serve also in explaining the higher OCB rate during COVID-19 compared to the time before the pandemic. The finding of high OCB during the pandemic provides corroboration to previous research conducted on teachers during COVID-19, where teachers who reported exhaustion were also found to demonstrate increased accomplishment while teaching online (Sokal et al., 2020).

The COVID-19 pandemic, which called for long periods of school closure forcing the transition to remote teaching, brought about a new role for the teachers as “digital instructional leaders” (Pollock, 2020). This term refers to online teaching and instruction that requires understanding of hardware and software issues, in addition to certain skills that allow the navigation of software and new knowledge on web-based conference platforms (ibid., p. 40). Our data analysis revealed that the most salient core feature of distance teaching during the pandemic was “use of technology.” The respondents indicated that teachers in their schools had to move immediately to teaching via video conferencing platforms, such as Zoom, without any preparation or with little or no technical support from outside sources (Rave et al., 2022). They had to develop skills using technological tools and applications and to refine continuously their instructional capabilities with technological tools. Their ability to build and refine their capabilities as digital instructional leaders might have gained them new resources to be conserved for coping with dynamic and uncertain conditions brought about by the pandemic (Hobfoll et al., 2018).

### 5.1. Limitations of the study

This study is not without limitations. To learn about teachers’ perceptions of their OCBs we asked the responding teachers to report about their behavior *prior* to the pandemic and *during* it. Thus, the report for the time prior to the COVID-19 lockdown was retrospective, and the collected data might not be fully reliable. Future research should consider conducting longitudinal study to capture the actual behaviors of teachers in real time. In addition, we asked the teachers to report on behaviors of teachers at their school rather than on their own actual behaviors. This strategy is desirable to cope with the social desirability problem associated with phenomena such as OCB (e.g., Podsakoff & Organ, 1986). It is also

preferable in instances when the data cannot be collected from another source, such as in the current study. However, responses to a question that asks about behaviors of colleagues in the respondent's school may depend on one's perspective and understanding of what he or she sees and how it is interpreted.

Further, it is important to note that most of the sample was comprised of women. Accumulating evidence indicated that men and women differ in the way they assess stress (Watson et al., 2011), and that women are more likely than men to exhibit OCB as part of their in-role job performance (Morrison, 1994). Therefore, it is critical to assess the generalizability of the present findings to male participants, as well as to larger and more heterogeneous samples (Alexandra Beauregard, 2012).

Finally, the data were collected via an online platform, which has its advantages but also some challenges. Among the challenges are issues of validity, especially with regard to sampling the study participants, the participants' inattention, their honest or less than truthful behavior, and some ethical concerns like the incentives granted to the participants (Newman et al., 2021). In the current study, the respondents came from a diverse group of the teachers' population in Israel so we assume that sampling validity was not a problem. We believe that the attention of the respondents was high because the questionnaire was relatively short, and required about 10 min to complete.

## 5.2. Theoretical and practical implications

Examination of OCB phenomenon in times of crisis in general, and among teachers in the educational system in particular, adds to knowledge about OCB during crisis times, on the one hand, and on OCB of teachers, on the other. Almost all research on OCB focuses on the functioning of individuals or teams in routine rather than in turbulent or unstable times. The current study augments this body of knowledge by generalizing the existing knowledge on OCB among teachers in times of crisis like the COVID-19 pandemic.

The study underscores the magnitude of OCB towards the student (OCBI) in times of crises, especially in relation to "providing support to students" – behavior that is not prevalent in that magnitude during routine times – while downplaying the exhibition of OCB toward colleagues, the team teachers. Although in times of crises individuals tend to find comfort and support among their peers (Uehara, 1990), it seems that during the lockdown of schools, teachers had only limited resources that they could exploit, which they used mainly for the benefit of their students. Future research is needed to learn whether this is a typical pattern among teachers in crises or not.

An interesting and somewhat different dimension of OCB identified in the current study is "investing extra time." Although we found commonalities with the conscientiousness dimension (Organ, 1988), this category does present a different facet of OCB. It includes various sub-categories of extra time involving different activities, such as frequent communication with various stakeholders, high workload and working overtime all day long and on the weekends. These behaviors seem to reflect the harsh times the teachers experienced during the pandemic, which forced them to spend extra time to fulfill their tasks. This behavior may not represent a voluntary act, which is a precondition for a behavior to be considered OCB, but rather a result of necessity or pressure to do much more beyond the job requirements (Somech & Bogler, 2019).

OCBs take place in a context (Lavelle, 2010), and during crises times the context may be more crucial than during routine times. Our study revealed that some citizenship behaviors common in routine times did not appear in the teachers' description of OCBs during the pandemic, such as sportsmanship (Podsakoff et al., 1990). Sportsmanship refers to one's willingness to endure unavoidable

inconveniences and impositions at work without complaining. We assume that this behavior was not described by the respondents because the pandemic appeared abruptly and required an extra effort from every teacher *beyond* what had been known up until then. The teachers might have felt that they should put their inconveniences and difficulties aside for the sake of the collective – their students and the society as a whole – without complaining about the situation and the harsh conditions with which they had to cope.

The current study also has practical implications. School principals and policy-makers should prepare teaching staff for times of crisis, in which teachers' work takes place in a dynamic environment and unpredictable circumstances, accompanied by uncertainty (regarding location and school guidelines) and when they have limited proficiency. In these challenging times, the dependence of schools on OCBs is even greater than during routine times, and therefore viable and structured preparation programs for crises times need to be established. From the teachers' point of view, they need to be prepared to gain adequate resources to enable them to surmount crisis times, in which they lose some or even many of the resources that are required for going the extra mile. In addition, schools should establish support networks among teachers, so critical in crisis times. The current study showed that teachers are overwhelmingly engaged in supporting their students, with almost no time devoted to supporting their peers, as exhibited in the OCB toward colleagues. It is essential that teachers should gain collegial support, especially in times of uncertainty and abrupt changes.

## 6. Conclusion

The COVID-19 pandemic has posed various challenges to the educational system with growing demands on teachers while decreasing their existing resources. During the pandemic, the educational setting went through rapid changes with no prior planning for them. Working in a dynamic environment with frequent top-down changes in regulations created challenges on the teaching staff and school principals. Under these circumstances, there was a vital need for teachers' extra-role behaviors to assist in building an alternative routine of instruction and learning. Indeed, the current study confirmed that teachers reported more OCBs "during COVID-19" than "before COVID-19," mostly towards students, less towards the school as a whole and parents, and least towards colleagues. We identified the unique construct of teacher OCB during the pandemic, composed of six categories: promoting academic achievement, investing extra time, providing support to students, use of technology, compliance with regulations, and compliance with role changes. These findings stress the significance of capturing OCB as a context-related phenomenon, especially during crises times.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data availability

The authors do not have permission to share data.

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## Appendix. Comparisons of OCB items before and during COVID-19

	Before COVID-19	During COVID-19	Z	p-value	Adjusted p-value
1. The teachers here help other teachers who have no formal interactions with them.	3.98 (1.58)	4.73 (1.39)	7.90	<.0001	<.0001
2. The teachers here help others who have been absent.	3.97 (1.52)	4.50 (1.49)	6.02	<.0001	<.0001
3. The teachers here help teachers who have heavy workloads.	3.47 (1.53)	3.96 (1.54)	5.70	<.0001	<.0001
4. The teachers here assist the principal with his or her work (when not asked).	3.43 (1.53)	4.03 (1.63)	6.43	<.0001	<.0001
5. The teachers here take time to listen to other teachers' problems and worries.	4.05 (1.42)	4.58 (1.37)	6.30	<.0001	<.0001
6. The teachers here go out of their way to help new teachers.	4.08 (1.52)	4.40 (1.50)	4.08	<.0001	<.0001
7. The teachers here take a personal interest in other employees.	3.97 (1.48)	4.27 (1.54)	3.77	<.0001	.001
8. The teachers here pass along information to co-workers.	4.38 (1.30)	4.80 (1.29)	5.74	<.0001	<.0001
9. Teachers' attendance at work is above the norm (e.g., staying after school hours to help students).	3.65 (1.53)	4.07 (1.65)	4.73	<.0001	<.0001
10. The teachers here give advance notice when unable to come to work.	4.72 (1.35)	4.57 (1.57)	1.63	.10	.93
11. The teachers here arrive at work on time and do not return late after work breaks.	4.57 (1.38)	4.32 (1.46)	3.05	.002	.021
12. The teachers here spend a great deal of time on personal phone conversations and issues irrelevant to work.	3.24 (1.56)	3.93 (1.77)	7.71	<.0001	<.0001
13. The teachers here cover for co-workers.	4.14 (1.43)	4.56 (1.60)	4.22	<.0001	<.00012
14. The teachers here make innovative suggestions to improve school life.	3.98 (1.41)	4.30 (1.49)	4.34	<.0001	<.0001
15. The teachers here have a strong volunteer orientation.	3.55 (1.50)	3.91 (1.64)	4.39	<.0001	<.0001
16. The teachers here conserve and protect organizational property.	4.18 (1.46)	4.31 (1.52)	2.09	.037	.33

Note: OCB – Organizational citizenship behavior.

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