

Coaching in the Leadership for Development-Oriented Work in Educational Organization in a Crisis Situation

Helena Šlebir Lekan¹, Andreja Istenič²

¹ University of Primorska, Koper, Slovenia

E-mail: helenaslebir@gmail.com

ORCID: <https://orcid.org/0009-0008-1568-6187>

² University of Primorska, Koper, Slovenia;

University of Ljubljana, Ljubljana, Slovenia;

Kazan Federal University, Kazan, Russia

E-mail: andreja.istenic@pef.upr.si

ORCID: <https://orcid.org/0000-0003-0513-5054>

DOI: 10.26907/esd.18.3.04

EDN: NCPDOC

Submitted: 1 March 2023; Accepted: 1 June 2023

Abstract

The crisis situation, the pandemic, with the closure of the educational space, has stimulated the integration of the virtual environment and digital technology into the educational space and has brought new leadership challenges. We investigated the experience of employees in the educational space (schools with adapted programmes, primary schools and secondary schools) during the pandemic. We found that employees experienced the negative aspect of facing the pandemic requirements for a virtual work environment. They were faced with the challenge of seeking help during the work process. They also had problems with remote work effectiveness, motivation and satisfaction. We were interested in the school leaders' response to work, the role of the leadership in the process of employee adaptation, and how to identify, understand and use the development tool of coaching when working in a virtual environment. A development tool is an aid to the work process, which enhances work performance. The study confirmed that a development-oriented work process depends on a higher utility value of coaching, from a positive employee response to the use of digital technologies in the work process and leaders' support in this. To the extent that employees were more open to using the Internet in the work process, they also reacted more positively to the new working conditions which required shifting online during the pandemic. A more positive response was also present in those where the leader's support was higher. We also detected a more positive response to the work process among employees who expressed an opinion about the higher useful value of coaching during the work process. We found that employees' response to online technologies was quite positive. Employees' response to the virtual work process was positive. Employees were open to the use of online technologies if the role of the employer was supportive. This leads to a better development-oriented work process.

Keywords: coaching, leadership, pandemic, digital technology, virtual environment, development-oriented work process.

Коучинг в управлении развитием образовательной организации в условиях кризиса

Хелена Шлебир Лекан¹, Андреа Истенич²

¹ Университет Приморска, Копер, Словения

E-mail: helenaslebir@gmail.com

ORCID: <https://orcid.org/0009-0008-1568-6187>

² Университет Приморска, Копер, Словения;

Университет Любляны, Любляна, Словения;

Казанский федеральный университет, Казань, Россия

E-mail: andreja.istenic@pef.upr.si

ORCID: <https://orcid.org/0000-0003-0513-5054>

DOI: 10.26907/esd.18.3.04

EDN: NCPDOC

Submitted: 1 March 2023; Accepted: 1 June 2023

Аннотация

Кризисная ситуация, а именно пандемия, сопровождающаяся закрытием образовательного пространства, стимулировала интеграцию виртуальной среды и цифровых технологий в образовательное пространство и поставила перед руководством новые задачи. Мы исследовали опыт сотрудников образовательного пространства (школы с адаптированными программами, начальные и средние школы) в период пандемии. Было обнаружено, что сотрудники испытывали негативный опыт, связанный с выполнением требований к виртуальной рабочей среде. Работникам пришлось обращаться за помощью. Кроме того, у них были проблемы с эффективностью, мотивацией и удовлетворенностью удаленной работой. Нас интересовали следующие вопросы: реакция руководителей школ на изменившиеся условия работы, роль руководства в процессе адаптации сотрудников, использование коучинга как инструмента развития при работе в виртуальной среде. Инструмент развития – это вспомогательное средство повышения эффективности труда. Исследование подтвердило, что рабочий процесс зависит от уровня полезности коучинга, от положительной реакции сотрудников на использование цифровых технологий, от поддержки руководителей в этом вопросе. Подготовленным таким образом сотрудники более позитивно реагировали на новые условия работы, которые требовали перехода в режим онлайн. Позитивная реакция наблюдалась и там, где поддержка со стороны руководителя была более регулярной, где сотрудники выразили мнение о большей полезности коучинга в процессе работы. Мы обнаружили, что реакция сотрудников на онлайн-технологии была достаточно позитивной, их отношение к виртуальному рабочему процессу было положительным, они были открыты к использованию онлайн-технологий, если работодатель оказывал им поддержку. Это делает более эффективным рабочий процесс, ориентирует его на развитие.

Ключевые слова: коучинг, лидерство, пандемия, цифровые технологии, виртуальная среда, рабочий процесс, ориентированный на развитие.

Introduction

The 21st century is facing challenges in educational as well as in all areas of social life caused by the pandemic. The crisis situation challenged educational leadership in the integration of computer supported teaching approaches and internet. A crisis situation is an undesirable and unpredictable phenomenon, a state in an organization where the existence and development of an organization is threatened (Dubrovski, 2000; Kranjčec & Polič, 2002). An example of a crisis situation in education is best represented by the closure of an educational space. Due to the closure, the labor market became rigid and the occurrence of the disease (COVID-19) also affected the mental health of employees

(Eurostat, 2022). Good practices show that in leadership with various forms and programs such as "Health at the Workplace" create a healthy working environment, which significantly contributes to the well-being and health of employees (Yıldırım & Solmaz, 2022) and they look forward to progress and they respond to changes more easily and quickly (Tušl et al., 2021).

In a crisis situation, the key in leadership is to react to change (Gaziel, 2015) and to understand the work as a developmental process (Cornett & Knight, 2009; Desimone & Garet, 2015; Devine et al., 2013; Russo, 2004). Among the development tools that are emerging around the world is the implementation of coaching (Cornett & Knight, 2009; Devine et al., 2013). Coaching is also present in various fields in the educational arena (Cornett & Knight, 2009; Devine et al., 2013; Kessel, 2010). As the definition of coaching is broad, as many definitions as there are authors, the following are the essentials.

Definitions and the importance of coaching as a development tool

A quite recent meaning of coaching has developed in the world of sport, conceiving of coaching as a trainer, a coach, an instructor. The pioneer of coaching, Timothy Gallwey (2001), transferred the findings from sport to business. His coaching philosophy was based on the developmental processes of the athlete (Kessel, 2010). The key here is that by asking questions of the individual, the coach activates the potential of the individual for better success in the team through a developmental tool such as coaching (Cunningham & Roberts, 2012). Coaching is an effective developmental tool in sport and in management (Cornett & Knight, 2009; Cunningham & Roberts, 2012; Devine et al., 2013; Sperry, 2004), as well as in the educational context (Cornett & Knight, 2009). It is credited with being an effective developmental process, especially in crisis situations (Devine et al., 2013; Desimone & Garet, 2015; Kadir et al., 2021).

In the education space, coaching is conceptualised as: the foundation of professional support for staff and a strategy for improving the way learning takes place in schools (Cunningham & Roberts, 2012); a person-to-person conversation focused on improving staff learning and development through questions and active listening (Cunningham & Roberts, 2012); unlocking the potential of staff as a way of helping them to learn rather than being taught (Rutar et al., 2012).

Coaching in Slovenia is focused on supporting some educational programmes (Gaziel, 2015) such as training on collegial coaching for personal and professional development (International development project COMEIN) and project of development coaching in high schools. It is still at a relatively early stage compared to other countries, such as the EU and the USA, where it has become an effective tool in crisis situations (Hodges et al, 2020). Coaching is an effective tool in terms of responsible and quick decision-making (Cunningham & Roberts, 2012; Gilbert & Trudel, 2011; Rutar et al., 2012), interpersonal relationships and employee motivation (Gallwey, 2001; Whitmore, 2017) and effectiveness of outcomes and solutions (Brečko, 2012; Crane, 2007; Cukjati, 2010; Megginson & Clutterbuck, 2010).

Virtual environment in the educational process

The move from educational institutions to the web on the virtual environment has brought new skills and new technological strategies to the workplace in a time of pandemic (Wong, 2019). The closure of these institutions has led to new challenges, notably the isolation of employees and the shift from educational institutions to virtual environments (Gennaro et al., 2020). The virtual environment offers a different context in which the organisation and its management play a central role (Eisenberg & Krishnan,

2018; Martins et al., 2004). In light of this, it is important that employees receive sufficient help and support from management and the organisation (Geister et al., 2006; Humala, 2017). Employees perform well when supported (Christian et al., 2009), becoming more open to virtual work. In particular, the response to a new work process is expressed in crisis situations (Anderson et al., 2017; Balda & Mora, 2017), such as during a pandemic. Research shows that when transitioning a work process to a virtual environment, supporting employees with appropriate management strategies facilitates employees' work. Work is more efficient and effective when management is focused on employees, their development and technology (Gaziel, 2015; Humala, 2017). To contribute to the development of the work environment, development tools are needed (Brockbank, 2008; Cornett & Knight, 2009; Jarvis et al., 2006).

With the emergence of the pandemic, there has been an increased awareness of the need for greater use of the development tool, coaching (Ibarra & Schoular, 2020). The use of coaching transferred to a virtual environment has some advantages: quality communication, more effective feedback, progress at work, reflective expression (Benson & Cotabish, 2014).

New working conditions bring new challenges for remote working and also new opportunities for organisational development (Dubrovski, 2011). The aforementioned leads to research and develop more effective and efficient models for remote work (Desimone et al., 2015; Garbe et al., 2020). In the following, we aim to examine the challenges of the pandemic and the factors that would work effectively in a crisis situation in the educational context.

Problem definition, objectives and purpose of the research

Employees in the educational sphere faced new challenges during the pandemic and the closing of educational institutions brought all workers into a virtual environment. The remote work within virtual environment involves digital technology and the introduction of more flexible work activities requiring of new approaches by educational organisations (Townsend et al., 1998).

In this study, we were interested in how employees experienced pandemic in the experience of pandemic, the challenges and the employees' response to working in a virtual environment. We were interested in the role of the school leader in the process of employee adaptation, how coaching is recognised, understood and used, and how the work process (developmental orientation below) evolved in the education space during the pandemic.

The understanding, applicability and visibility of the concept of coaching in the virtual work process which requires higher degree of flexibility may cause stress and burnout. We were interested in how coaching could be as an effective support for the requirements of virtual work in Slovenia. Coaching as a support adaptation to requirements of virtual work was of interest to us with understanding the state of the use of coaching in Slovenia. We were interested in the attitudes towards coaching especially when working in a virtual environment. Research around the world shows that in the educational space coaching as a development tool is an effective method (Cornett & Knight et al., 2009, Devine et al. 2013; Mullen & Fletcher, 2012; Kretlow & Bartholomew, 2010), and the use value has increased during the pandemic (Ibarra & Schoular, 2019). We want to explore the phenomenon of coaching in Slovenia during the pandemic and develop it as a global educational tool for crisis situations. The above-mentioned triggers to investigate the emergence of coaching in Slovenia during the pandemic and to further develop it as a global educational tool for crisis situations.

The research questions and related hypotheses are:

R1: What are the biggest challenges in remote work during the pandemic?

H1: There was a prevalence of negative perceptions of the pandemic among employees while remote work.

H2: Employees used a variety of online resources to work remotely.

H3: Employees who were more open to using new online technologies in their work process responded more positively to the new, remote work process.

H4: Employees with more support from leadership responded more positively to the new, remote work process.

R2: What is the understanding of coaching among employees?

H5: Employees who perceive a greater use value of coaching responded more positively to the remote work process).

Methodology

Research method and sample

The descriptive-causal-non-experimental method of empirical pedagogical research was applied.

A simple random sample of 120 respondents was randomly selected, namely teachers in the area of Ljubljana and its surroundings. The respondents were recruited from a list of schools, mainly by sending an e-mail in February and March of the school year 2020/21. The participating schools were primary schools, schools with adapted programmes and secondary schools. Among the respondents, 71.7% were female, with 61.7% of respondents from primary schools, 24.0% of respondents from secondary schools and 14.3% of respondents from adapted primary schools. The average age of the respondents was 42.2 years, with a standard deviation of 9.3 years. The youngest respondent was 25 years old and the oldest was 64 years old.

Data collection

The data were collected using a structured questionnaire, where the opening questions were designed to capture demographic data, followed by 10 sets of statements, which were rated using a five-point Likert scale to assess the level of agreement (from 5 - strongly agree to 1 - strongly disagree), and for one question also a frequency scale (5 - always, 4 - often, 3 - occasionally, 2 - rarely, 1 - never).

The questionnaire was prepared by us and reviewed by three external collaborators. The questions are clearly defined, cover facts and concepts, and are closed-ended in two sets. The first part of the survey contained questions related to the challenges faced by employees during the pandemic and ways of coping with them, and the second part of the survey contained questions related to coaching. The questionnaire was pilot-tested and sent to five selected teachers before the survey was administered.

The validity of the instrument was ensured by constructing the survey on the basis of the literature mentioned above. The construct validity of the measured concepts was checked by factor analysis. For the set of statements testing openness to the use of new technologies, 49.0% were explained on the basis of four statements. For the set of five statements relating to behaviour in a virtual environment, we explained 36.3% of the variance. For the set of claims related to employer support, we also explained 47.1% of the variance based on four claims. Furthermore, we explained 64.0% of the variance based on the twelve statements relating to coaching.

The reliability of the questionnaire was checked by Cronbach's alpha coefficient for all 51 statements using a 5-point scale, with a result (0.853) indicating very good reliability.

The objectivity of the questionnaire was ensured by the use of a closed-ended questionnaire, with uniform, single-item and precise instructions for completing the survey, and numerical rating scales.

Data processing

The data were processed using the SPSS statistical software. Basic descriptive statistics (arithmetic mean= M, minimum value= MIN, maximum value= MAX, standard deviations= SD) were plotted, and frequencies and proportions were plotted for demographic data.

The new common variables were derived as averages of the statements of each set of questions. The Kolmogorov-Smirnov test was used to find that the distribution of the variables deviated from a normal distribution, which led us to use non-parametric tests for bivariate analyses. Averages are also shown to facilitate meaningful comparisons. Associations between the concepts under study were tested using Spearman's rank correlation coefficient, and the Wilcoxon test was used for comparisons between the ratings of the statements. As a final step of the analysis, we used regression analysis because we were interested in the effect of the independent variables on the dependent variable.

A factor analysis was performed over all the scant claims to check the construct validity of the measured concepts. First, we calculated the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) statistic to check whether the variables were sufficiently correlated. The KMO test was appropriate everywhere (above 0.5), the Bartlett test was statistically significant everywhere, which means that the variables are not independent of each other and factor analysis is meaningful. However, to determine the number of factors, we relied on the eigenvalues and checked the proportion of explained variance. For the set of statements testing openness to new technologies, we extracted 1 factor. We explained 49.0% of the variance based on the four statements and calculated sufficient construct reliability with Cronbach's alpha (0.71). Based on the five statements in the second set of statements related to behaviour in the virtual environment, we explained 36.3% of the variance and obtained sufficient reliability with a Cronbach's alpha coefficient of (0.74). For the set of statements regarding employer assistance in the virtual environment, we extracted 1 factor. We explained 47.1% of the variance for the five employer help statements and calculated sufficient reliability with a Cronbach's alpha coefficient of 0.83. Furthermore, based on the twelve statements regarding coaching, we also extracted 1 factor and explained 64.0% of the variance and obtained excellent construct reliability with a Cronbach's alpha coefficient (0.95).

Results

Employees' negative perceptions of the pandemic while working remotely were prevalent

The results (Table 1) showed that the respondents were most likely to agree that the pandemic had caused them a lot of stress ($M=4.03$; $SD=0.93$), and this rating was statistically significantly different from all other mean ratings ($p<0.05$), which was verified by Wilcoxon's paired comparison test for all the rated statements. In terms of the level of agreement, the statement that the pandemic caused burnout is in second place (Wilcoxon test shows statistically significant differences compared to the ratings of the positive aspects; $p<0.05$). Among the positive aspects, the statement that the pandemic gave a lot of free time is the lowest rated ($M=2.57$; $SD=1.18$), and the statement that the pandemic situation helped to improve self-reflection is the highest rated ($M=3.18$; $SD=0.97$).

According to the data collected, the negative aspect of facing the pandemic outweighs all the positive aspects, and this finding confirms our first hypothesis.

Table 1. Descriptive statistics for statements related to wellbeing during the pandemic

	Minimum	Maximum	Arithmetic mean	Standard deviation
The pandemic gave more free time	1	5	2.57	1.18
The pandemic situation helped to improve self-reflection	1	5	3.18	0.97
The pandemic situation influenced healthier habits	1	5	2.83	1.03
The pandemic caused a lot of stress	1	5	4.03	0.93
The pandemic caused burnout	1	5	3.58	1.10

Note. Question - Please rate how you felt during the pandemic and how you experienced it (1 – Strongly disagree / 5 – Strongly agree).

Wilcoxon test for pairwise comparisons between positive statements and the statement 'The pandemic caused a lot of stress'

	The pandemic gave more free time		The pandemic gave more free time
	The pandemic caused a lot of stress		The pandemic caused a lot of stress
Z	-7.326	-5.946	-6.604
p	< 0.001	< 0.001	< 0.001

Wilcoxon test for pairwise comparisons between positive claims and the claim 'The pandemic caused burnout'

	The pandemic gave more free time		The pandemic gave more free time
	The pandemic caused burnout		The pandemic caused burnout
Z	-5.237	-2.740	-4.290
p	< 0.001	0.006	< 0.001

Employees used various online resources to work remotely

The respondents rated the different sources of help on a 5-point frequency scale (Table 2). We looked at which sources of information respondents used while working remotely when seeking help about their work.

In this respect, we checked how often employees sought help for remote working from different sources of information. The results of the descriptive statistics (Table 2) reveal that, on average, respondents occasionally sought help and information for remote working from a variety of online sources. They rarely sought remote working help and information from managers ($M=2.27$; $SD=0.98$), occasionally from professional colleagues ($M=3.09$; $SD=0.92$) and co-workers ($M=3.25$; $SD=0.97$), and most frequently from online applications ($M=3.35$; $SD=0.94$) and social networks ($M=3.46$; $SD=1.05$). We can confirm the second hypothesis that employees mainly sought help in their new work environment on social networks and online applications. Based on the mean scores,

which are between 3 and 4 on a 5-point scale, it can be concluded that all areas presented moderate to high challenges.

Table 2. Descriptive statistics for statements related to finding help, information when working remotely

	Minimum	Maximum	Arithmetic mean	Standard deviation
Your schoolmaster	1	5	2.27	0.97
Your colleagues	1	5	3.25	0.97
Colleagues in your professional field	1	5	3.09	0.92
In web applications	1	5	3.35	0.94
On social networks (YouTube)	1	5	3.46	1.05

Note. Question - Please rate how you felt during the pandemic and how you experienced it (1 – Strongly disagree / 5 – Strongly agree).

The second part of the questionnaire then focused on the specific challenges perceived by the respondents in the course of their work during the pandemic. The results (Table 3) showed that on average the respondents agreed most with the statement that remote working efficiency was the most challenging ($M=3.97$; $SD=0.87$), while motivation ($M=3.63$; $SD=1.12$) and job satisfaction ($M=3.46$; $SD=0.99$) were the most challenging of all the challenges assessed. The least agreed statement was that they faced a lack of quality communication with management ($M=2.89$; $SD=1.03$). Based on the mean scores, which are between 3 and 4 on a 5-point scale, it can be concluded that the employees faced specific challenges in the work process when working remotely.

Table 3. Descriptive statistics for statements related to major challenges during the pandemic

	Minimum	Maximum	Arithmetic mean	Standard deviation
Efficiency of remote working	1	5	3.97	0.87
Motivation related to remote working	1	5	3.63	1.12
Lack of resources for remote working	1	5	3.19	1.06
Lack of quality communication with colleagues	1	5	3.04	1.15
Lack of quality communication with management	1	5	2.89	1.03
Satisfaction at work	1	5	3.46	0.99

Note. Question - Please indicate what was the biggest challenge for you during the pandemic (1 – Strongly disagree / 5 – Strongly agree).

Employees who are more open to the use of new online technologies in their work process responded more positively to the new work process

We looked at how employees reacted to working in a virtual environment dominated by online technologies. In this way, we wanted to find out how well they accepted the adjustments. In this way, we wanted to find out how well they accepted the adjustments that online working brings to the individual. We also conducted a factor analysis over this

set of statements measuring openness to the use of new online technologies in the work process. We checked the content validity of the phenomenon thus measured.

The highest scores (Table 4) were recorded for the statement that they adapted their work using web technologies ($M=4.14$; $SD=0.64$), they integrated new technologies and infrastructure into their work ($M=4.07$; $SD=0.72$), and that they were self-initiated in their search for information ($M=4.03$; $SD=0.81$). The lowest level of agreement was that they received quality information about the new online technologies they used ($M=3.61$; $SD=0.80$). The mean scores for all statements are quite high, at 4 on a 5-point scale, indicating that the employees had a fairly positive attitude towards online technologies and were open to using them when working remotely.

A factor analysis was performed on the set of statements measuring openness to using web technologies in the work process. First, the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin statistic (KMO) were used to check whether the data were suitable for analysis. We confirmed ($KMO=0.705$; Bartlett's test: $p<0.001$) that the analysis could be performed. We extracted 1 factor explaining 49.04% of the variance. Based on the four statements, we constructed a new common variable, which we call 'openness to using web technologies', where a higher score indicates a more positive attitude towards the use of new web technologies at work, and a lower score indicates a less positive attitude. Finally, the reliability of the construct was checked; the Cronbach's alpha coefficient was 0.71, indicating sufficient reliability.

Table 4. Descriptive statistics for statements related to the openness to online technologies in remote working

	<i>Minimum</i>	<i>Maximum</i>	<i>Arithmetic mean</i>	<i>Standard deviation</i>	<i>FACTOR1 (t-value of the weight)</i>
I was looking for information on the use of web technologies on my own	1	5	4.03	0.81	0.63
I was getting quality information about new web technologies that I had used	2	5	3.61	0.80	0.26
I was getting quality information about the new web technologies I was using	2	5	4.14	0.64	0.89
I integrated new/additional technologies, infrastructure into my work	2	5	4.07	0.72	0.85
				Cronbach alfa	0.71
				Intrinsic value	2.23
				% variance explained	49.04

Note. Question – How have you handled online technologies in your remote work? (1 – Strongly disagree / 5 – Strongly agree).

In addition to attitudes towards new technologies, we were also interested in how the respondents generally reacted to the virtual working process, whether they were proactive and developed themselves in terms of acquiring new skills and more advanced working strategies and clear communication.

While the participants agreed on average with the statements related to behaviour in the virtual environment, the average scores on the 5-point scale were lower than for the previously presented set of statements (Table 5). The lowest agreement is with the statement that their communication has become clearer ($M=3.28$; $SD=0.86$), while the highest agreement is with the statement that they have become more active in seeking new knowledge ($M=3.88$; $SD=0.73$).

A factor analysis was carried out on the set of statements measuring the respondents' response to the new work process. First, the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin statistic (KMO) were used to check whether the data were suitable for analysis. We confirmed (KMO=0.709; Bartlett's test: $p<0.001$) that the analysis could be carried out. We extracted 1 factor explaining 36.26% of the variance. Given the calculated values of the final weights, which were all above 0.50, we retained all claims in the analysis. Based on the five statements, we were therefore able to construct a new common variable, which we call 'response to the new work process', where a higher score indicates the presence of development and growth of the individual in response to the new work process, and a lower score indicates its absence. Finally, the reliability of the construct was tested; the Cronbach's alpha coefficient was 0.74, indicating that the construct is sufficiently reliable.

Table 5. Descriptive statistics for statements related to response to a completely new workflow/migration to online environments

	<i>Minimum</i>	<i>Maximum</i>	<i>Arithmetic mean</i>	<i>Standard deviation</i>	<i>FACTOR1 (t-value of the weight)</i>
I have become more active in seeking new knowledge	1	5	3.88	0.86	0.64
I have transferred all my knowledge and experience online	2	5	3.50	0.89	0.63
I have become more flexible in my work	1	5	3.79	0.87	0.55
My communication has become clearer	2	5	3.28	0.86	0.64
I thought about development activities in the school	1	5	3.88	0.73	0.55
				Cronbach alfa	0.74
				Intrinsic value	2.44
				% variance explained	36.26

Note. Question – How did the completely new working process/migration to online environments during the pandemic affect you? (1 – Strongly disagree / 5 – Strongly agree).

We calculated the correlation between the two obtained variables (Table 6).

Table 6. *Spearman rank correlation coefficient for response to new working conditions and openness to online technologies*

		Responding to the new working process
	Correlation coefficient (ρ)	0.33
Openness to online technologies in remote work	p	< 0.001

The third hypothesis can be confirmed, as we have shown that the employees who are more open to using new web technologies have a more positive response to a new work process based on these new technologies. We found a statistically significant correlation between the two areas: among employees who are more open to the use of web technologies, there is a more positive response to a virtual work process based on new technologies (ρ rho=0.33; $p < 0.001$). This means that we can conclude that a positive attitude towards the use of new web technologies leads to a more development work process.

Employees with more leadership support responded more positively to the new working process

The results (Table 7) showed that the respondents on average moderately agreed with the statements related to school leader support during the pandemic. They agreed least with the statement that their school leader asked them various interesting questions so that they could find the solution themselves later ($M=2.58$; $SD=1.00$), and they agreed most with the statement that their school leader praised and thanked them for their good work ($M=3.82$; $SD=0.98$).

The factor analysis was also performed for the set of statements measuring school leader support, where the third statement was recoded to have the same value orientation as the other statements. First, the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin statistic (KMO) were used to check whether the data were suitable for analysis. We confirmed (KMO=0.790; Bartlett's test: $p < 0.001$) that the analysis could be performed. We extracted 1 factor explaining 47.08% of the variance of the measured concept. Based on the five statements, we constructed a new common variable, which we call 'school leader support during the pandemic', where a higher score indicates higher school leader support and a lower score indicates lower school leader support. Finally, the reliability of the construct was tested; the Cronbach's alpha coefficient was 0.83, indicating good reliability of the construct.

Table 7. *Descriptive statistics for claims related to support, praise from the school leader during the pandemic*

	Minimum	Maximum	Arithmetic mean	Standard deviation	FACTOR1 (t-value of the weight)
He praised and thanked employees for their good work	1	5	3.82	0.98	0.71
He advised on quality educational resources for remote working	1	5	3.05	1.11	0.63

	<i>Minimum</i>	<i>Maximum</i>	<i>Arithmetic mean</i>	<i>Standard deviation</i>	<i>FACTOR1 (t-value of the weight)</i>
He only complied with rules, laws and circulars communicated to him by his superiors	1	5	3.62	1.11	0.31
He asked me various interesting questions, so that I could find a solution later by myself	1	5	2.58	1.00	0.81
We reflected together on the problem	1	5	2.86	1.10	0.83
				Cronbach alfa	0.83
				Intrinsic value	2.79
				% variance explained	47.08

Note. Question – What kind of support, praise did you receive from your employer during the pandemic? (1 – Strongly disagree / 5 – Strongly agree).

We calculated the correlation between the resulting variable and the response to the new work process (Table 8).

Table 8. *Spearman's rank correlation coefficient for response to new working conditions and openness to online technologies*

		School leader support during the pandemic
	Correlation coefficient (ρ)	0.19
Responding to a new work process	p	0.041

We can confirm the fourth hypothesis. We have shown that the employees who had more support from their school leader, responded more positively to a virtual work process based on new technologies ($\rho=0.19$; $p=0.041$). The association between the two variables is weak, but positive and statistically significant. This means that it can be concluded that more management support also leads to a more development-oriented work process.

Employees who perceived a greater use value of coaching responded more positively to the virtual working process

The results (Table 9) showed that on average the respondents neither agreed nor disagreed with the statements related to coaching in the work process. The lowest level of agreement was with the statement that they had experienced organised coaching ($M=2.10$; $SD=1.07$), while the highest level of agreement was with the statement that they had heard of coaching ($M=3.80$; $SD=0.97$), although here again the result shows only moderate familiarity with the term.

Table 9. Descriptive statistics for the statements regarding coaching in the work process

	<i>Minimum</i>	<i>Maximum</i>	<i>Arithmetic mean</i>	<i>Standard deviation</i>
I've heard of coaching	1	5	3.80	0.97
I searched some information on the Internet	1	5	2.77	1.18
I've had conversations about coaching	1	5	2.60	1.17
We had organised coaching	1	5	2.10	1.07
I've seen others coach	1	5	2.42	1.06

Note. Question – How do you see coaching as a form of support? (1 – Strongly disagree / 5 – Strongly agree).

This is followed by a broader set of statements to determine how respondents see and understand the usefulness of coaching. We used several statements because we were interested in the state of coaching in the crisis situation in Slovenia during the pandemic and it was also a key focus of the research.

It can be seen that the respondents' opinions on the usefulness of coaching in the work process are fairly uniform (Table 10), with all scores ranging between 3.5 and 3.9, indicating a moderate level of agreement with the statements. The respondents were least likely to agree with the statements that coaching could help them to be more satisfied at work ($M=3.53$; $SD=0.83$) and to see its usefulness in better time management ($M=3.53$; $SD=0.87$). On the other hand, the respondents were most likely to agree with the statement that coaching could be used to help them in the work process in crisis situations ($M=3.90$; $SD=0.80$).

The factor analysis was conducted on a set of statements to determine how respondents perceive and understand the usefulness of coaching. First, Bartlett's test of sphericity and the Kaiser-Meyer-Olkin statistic (KMO) were used to check whether the data were suitable for analysis. We confirmed ($KMO=0.937$; Bartlett's test: $p<0.001$) that the analysis could be carried out. We extracted 1 factor explaining 64.00% of the variance of the measured concept. Based on the 12 statements, we constructed a new common variable, which we call 'perceived usefulness of coaching', where a higher score means a good perception of the usefulness of coaching and a lower score means a poor perception of the usefulness of coaching. Finally, the reliability of the construct was checked; the Cronbach's alpha coefficient was 0.95, indicating excellent reliability of the construct, and a new variable is created based on all 12 statements.

We confirm the fifth hypothesis, as we have shown that it is true that employees who perceived a higher utility value of coaching responded more positively to the new work process. We can conclude that a higher recognition of coaching results in a more development-oriented work process.

Table 10. Descriptive statistics for the statements on perceived usefulness of coaching

	<i>Minimum</i>	<i>Maximum</i>	<i>Arithmetic mean</i>	<i>Standard deviation</i>	<i>FACTOR1 (t-value of the weight)</i>
With coaching I could be more efficient in my work process	1	5	3.72	0.73	0.84
With coaching I could be more successful in the work process	2	5	3.73	0.71	0.86

	<i>Minimum</i>	<i>Maximum</i>	<i>Arithmetic mean</i>	<i>Standard deviation</i>	<i>FACTOR1 (t-value of the weight)</i>
With coaching I could be more satisfied at work	1	5	3.53	0.83	0.81
With coaching I would be able to prepare myself faster for new situations in the work process	1	5	3.75	0.77	0.72
Coaching could be used as an aid in the work process in crisis situations	1	5	3.90	0.80	0.75
Coaching could help me grow professionally	2	5	3.87	0.77	0.81
Coaching would help me with critical thinking in the workplace	1	5	3.68	0.83	0.78
With better time management	1	5	3.53	0.87	0.79
With better work flexibility	1	5	3.59	0.92	0.74
With my efficiency	1	5	3.71	0.84	0.88
With creativity	1	5	3.62	0.95	0.72
With my performance	1	5	3.72	0.83	0.86
				Cronbach alfa	0.95
				Intrinsic value	8.03
				% variance explained	64.00

Note. Question – How true are the following statements to you? Could coaching help you with any of the problems in the work process? (1 – Completely disagree / 5 – Completely agree).

As part of the fifth research question, we tested the regression model (Table 11). The independent variables appeared as variables obtained during the analysis and were called openness to using the Internet in the work process, school leader support during the pandemic and perception of the usefulness of coaching. We checked which factor is more important in the work process. If we use the variable 'response to the new work process' as a dependent variable and perform a regression analysis with the selected independent variables, we obtain a statistically acceptable model ($F(df3)=23.55$; $p<0.001$) with all characteristic influences of the independent variables. Three independent variables explain 36.20% of the variance of the dependent variable. Based on the standardized regression coefficients, we can conclude that openness to using the Internet in the work process is the most important response to the virtual work process during the pandemic (β beta = 0.49; $p<0.001$), followed by school leader's support during the pandemic (β beta= 0.18; $p=0.001$) and the perception of recognition of coaching during the pandemic (β beta=0.18; $p=0.002$). In all cases, we demonstrated a positive statistically significant influence of the

independent variable on the dependent variable. To the extent that employees were more open to using the Internet in the work process, they reacted more positively to the new working conditions during the pandemic. A more positive response was also present in those where the school leader's support was higher. We also detected a more positive response to the work process among employees who expressed an opinion about the higher useful value of coaching during the work process.

Table 11. Descriptive statistics of common variables and regression analysis results

<i>Dependent variable</i>	<i>Arithmetic mean</i>	<i>Standard deviation</i>	<i>Standardized regression coefficient (β beta)</i>	<i>t value</i>	<i>p</i>
Responding to a new work process	3.67	0.59		1.08	
Openness to use the web in the work process	3.96	0.54	0.49	6.53	< 0.001
Leader's support during the pandemic	2.94	0.78	0.18	2.57	0.001
Perception of the usefulness of coaching	3.32	0.53	0.18	2.46	0.002

In all cases, we identified a positive statistically significant influence of the independent variable on the dependent variable. To the extent that employees were more open to using the Internet in the work process, they reacted more positively to the new working conditions during the pandemic. A more positive response was also present in those where the school leader's support was higher. We also detected a more positive response to the work process among employees who expressed an opinion about the higher useful value of coaching during the work process. We illustrated the mentioned statements with a model (Figure 1).

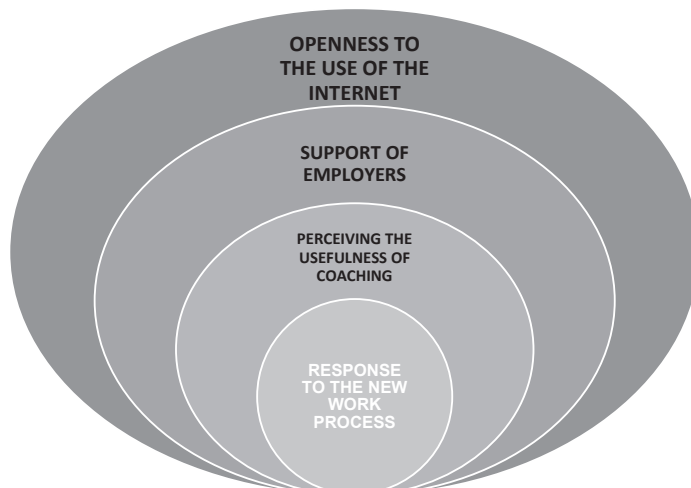


Figure 1. Model for a development-oriented work process; openness to using the Internet, school leader's support and the perception of coaching play the most important role in the response to the new work process

Discussion

The research found that employees experienced a negative aspect of dealing with the pandemic in a virtual work environment, especially stress, which is also confirmed by another study (Galanti, et al., 2021), which found that stress reduced productivity and motivation. Both studies found that a great deal of flexibility was needed in organizations. Employees had to look for new approaches, and managers had to support employees in new work demands in order to avoid stress and burnout.

We also found that the search for information has moved mainly to the Internet, especially to online applications and social networks, whereby employees have adapted to new technologies and become more active in the search for new knowledge. The aforementioned facts are also confirmed by research (Galanti, 2021), which notes that the use and sale of technologies and software increased due to the unpredictable conditions associated with the pandemic. Research (Passmore, et al., 2021) also finds that the pandemic has accelerated the development of online coaching, with the use of online conversation tools increasing.

Research findings (Galanti, et al., 2021) show that the positive response of employees to new working conditions is related to productivity and work engagement. Our research also finds that employees who were more open to using the Internet in the work process responded more positively to the new working conditions during the pandemic. Another study (Passmore, et al., 2023) makes a similar claim. The results show that the winners of the pandemic were those who best knew how to adapt and change the online environment, or who had the most experience working online.

One of the studies (Wernick et al., 2021) showed that during the pandemic, creating work opportunities for employees, such as virtual coaching trainings and reflections, is crucial in the work process. The research (Passmore et al., 2023) also notes that the trend of coaching has also changed, moving mostly to virtuality. Another study (Galanti, et al., 2021) confirms that crisis situations require functional tools, such as coaching for remote work management. In our research, we found that employees in Slovenia have contact with coaching in the work process, but they know little about it and hardly use it. The results prove that the recognition of the term coaching is somehow present, but the useful value of coaching during the work process was less.

As a tool (for crisis situations), coaching has a useful value in various development processes of a crisis, as a result of a more positive response to work, openness to new environments of employees and support from the school leader. Here, the most important thing is the response to the new working conditions, which affects both the openness to using the Internet in the work process, as well as the school leader's support in the work process and the perception of the usefulness of the coaching process in crisis situations, such as a pandemic. In our research, we also proved that among employees who are more open to using new online technologies with the support of management and recognition of the greater usefulness of coaching, it leads to a more developed work process.

In one of the studies (Garbe et al., 2020), it was found that the educational space offered sufficient support to employees during the pandemic. The parents were also satisfied with this. Our research also confirmed that school leader had to look for new approaches and support employees in new work requirements, because a more positive response was present among those employees where the school leader's support was higher. In the same research (Garbe et al., 2020), a major challenge was student motivation, distance learning effectiveness and learning stress. Our research also showed us the same challenges faced by employees during the pandemic, namely that the effectiveness of remote work, motivation and stress at work represented concrete challenges.

In further research, we want to develop a model of the development work process in combination with other models that have already been researched, which will require a more precise integration and in-depth consideration of the development process and the key factors involved. We want to expand the theoretical concept, and pay special attention to the transfer of theory into practice, whereby we will place the tool developmentally. The development tool can contribute to the educational space with more advanced work strategies and the development of crisis situations.

Conclusions

The purpose of the research was to identify how employees in education reacted to pandemic crises with leadership for an educational change to remote work and how the coaching was utilised. Coaching as a leadership tool to enhance development-oriented work process was examined in the educational context in Slovenia with a focus to technology integration in pedagogic work. We found that the educational space in a crisis situation can be developmentally oriented if it includes certain factors. We found that a positive response to new working conditions is important in the development process during a crisis situation, and the key factors in this are the openness to using the Internet and technology support in the work process and the support of the school leader. The higher useful value of the development tool is also important (in our case of coaching), which should be given more attention and time in further research. Based on the obtained results, we found that the connections of the mentioned factors can be crucial in the preparation and planning of models and strategies for crisis situations. In the future, we would like to investigate the mentioned factors in more detail. Based on the aforementioned research, we want to check other models and consider their effective introduction into pedagogical practice.

We want to offer a strategic tool as a solution and a new trend that will contribute to more advanced approaches in the educational space. Namely, on the basis of the research, we can critically judge that the educational space shows the need for development in Slovenia, but it has not improved in this direction. That is why we are of the opinion that development and new tools are necessary for this, as well as orientation towards new management activities and new approaches of organizations. Here, we are referring primarily to coaching, as a tool of efficiency and effectiveness to technology integration.

The literature on coaching in the educational space in Slovenia are not available however the literature on coaching is rapidly emerging globally. With our research, we explored coaching, especially as a development tool in connection with the challenges of a crisis situation in educational context. Through further in-depth research, by combining a quantitative and qualitative approach, we will gain a broader insight into the topic and, based on it, a contribution to practice, resulting in the form of an effective model. In further research, we want to develop an effective model in accordance with current theories of crisis situations and coaching as a development tool for leadership in such circumstances.

References

- Anderson, H. J., Baur, J. E., Griffith, J. A., & Buckley, M. R. (2017). What works for you may not work for (Gen) Me: Limitations of present leadership theories for the new generation. *The Leadership Quarterly*, 28(1), 245–260. <https://doi.org/10.1016/j.leaqua.2016.08.001>
- Balda, J. B., & Mora, F. (2017). Adapting leadership theory and practice for the networked, millennial generation. *Journal of Leadership Studies*, 5(3), 13–24. <https://doi.org/10.1002/jls.20229>
- Benson, T., & Cotabish, A. (2014). Virtual Bugs: An Innovative Peer Coaching Intervention to Improve the Instructional Behaviors of Teacher Candidates. *State Journal*, 24(1), 1–9.

- Brečko, D. (2012). The role of coaching in creating organizational energy. *Benchmarking*, 81(75), 12.
- Brockbank, A. (2008). Is the coaching fit for purpose? A typology of coaching and learning approaches. *Coaching: An International Journal of Theory, Research and Practice*, 1(2), 132–144. <https://doi.org/10.1080/17521880802328046>
- Christian, M. S., Bradley, J. C., Wallace, J. C., & Burke, M. J. (2009). Workplace safety: a meta-analysis of the roles of person and situation factors. *Journal of applied psychology*, 94(5), 1103–1127. <https://doi.org/10.1037/a0016172>
- Cornett, J., & Knight, J. (2009). Research on coaching. *Coaching: Approaches and perspectives*, 192–216.
- Crane, T. G. (2007). *The heart of coaching*. San Diego. FTA.
- Cukjati, B. (2010). Standardi v coachingu [Standards in coaching]. *HRM. Junij*, 12–16.
- Cunningham, J., & Roberts, P. (2012). *Coaching excellence: Best Practices in Business Coaching (Vol. 1)*. LID Editorial.
- Desimone, L. M., & Garet, M. S. (2015). Best practices in teacher's professional development in the United States. *Psychology, Society, & Education*, 7(3), 252–263.
- Devine, M., Meyers, R., & Houssemand, C. (2013). How can coaching make a positive impact within educational settings? *Procedia-Social and Behavioral Sciences*, 93, 1382–1389. <https://doi.org/10.1016/j.sbspro.2013.10.048>
- Dubrovski, D. (2000). *Crisis management*. College of Management.
- Dubrovski, D. (2011). Razsežnosti kriznega managementa [Dimensions of crisis management] Celje, Mednarodna fakulteta za družbene in poslovne študije.
- Eisenberg, J., & Krishnan, A. (2018). Addressing virtual work challenges: learning from the field. *Organization Management Journal*, 15(2), 78–94. <https://doi.org/10.1080/15416518.2018.1471976>
- Eurostat (2022). *European statistical recovery dashboard*. EU. <https://ec.europa.eu/eurostat/cache/recovery-dashboard/>
- Galanti, T., Guidetti, G., Mazzei, E., Zappalà, S., & Toscano, F. (2021). Work from home during the COVID-19 outbreak: The impact on employees' remote work productivity, engagement, and stress. *Journal of occupational and environmental medicine*, 63(7), e426–e432. <https://doi.org/10.1097/JOM.0000000000002236>
- Gallwey, W. T. (2001). *The inner game of work: Focus, learning, pleasure, and mobility in the workplace*. Random House.
- Garbe, A., Ogurlu, U., Logan, N., & Cook, P. (2020). COVID-19 and remote learning: Experiences of parents with children during the pandemic. *American Journal of Qualitative Research*, 4(3), 45–65. <https://doi.org/10.29333/ajqr/8471>
- Gaziel, H. H. (2015). In-service management training: a comparative study of economic and educational organizations. *Modern Pedagogy*, 66(4), 64–88.
- Geister, S., Konradt, U., & Hertel, G. (2006). Effects of process feedback on motivation, satisfaction, and performance in virtual teams. *Small group research*, 37(5), 459–489. <https://doi.org/10.1177/1046496406292337>
- Gennaro, F., Pizzol, D., Marotta, C., Antunes, M., Racalbutto, V., Veronese, N., & Smith, L. (2020). Coronavirus diseases (COVID-19) current status and future perspectives: a narrative review. *International journal of environmental research and public health*, 17(8), 2690. <https://doi.org/10.3390/ijerph17082690>
- Gilbert, W. D., & Trudel, P. (2011). Learning to coach through experience: Reflection in model youth sport coaches. *Journal of teaching in physical education*, 21(1), 16–34.
- Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020). *The difference between emergency remote teaching and online learning*. New York: Routledge.
- Humala, I. (2017). Typology on leadership toward creativity in virtual work. *Interdisciplinary Journal of Information, Knowledge, and Management*, 12, 209–243.
- Ibarra, H., & Scoular, A. (2020). The leader as coach. *Harvard Business Review*, 97(6), 110–119.
- Jarvis, J., Lane, D., & Fillery-Travis, A. (2006). *The case for coaching: Making evidence-based decisions on coaching*. Chartered Institute of Personnel and Development.
- Kadir, A. K., Karuppannan, G., Rahman, M. A., & Kumarasamy, M. M. (2021). The Effects Of Coaching And Mentoring On Metacognition Knowledge Among Malay Language Teachers in

- Sabah, Malaysia. *American International Journal of Education and Linguistics Research*, 4(1), 18–30. <https://doi.org/10.46545/aijeler.v4i1.284>
- Kessel, L. (2010). Coaching, the field of work of professional supervisors. A. Kobolt. *Supervision and coaching*. University of Ljubljana. Faculty of Education. National Education Institute. Ljubljana.
- Kranjčec, R., & Polič, M. (2002). Psihološki vidiki kriznega upravljanja [Psychological aspects of crisis management]. *UJMA*, 16, 409–414.
- Kretlow, A. G., & Bartholomew, C. C. (2010). Using coaching to improve the fidelity of evidence-based practices: A review of studies. *Teacher Education and Special Education*, 33(4), 279–299. <https://doi.org/10.1177/0888406410371643>
- Martins, L. L., Gilson, L. L., & Maynard, M. T. (2004). Virtual teams: What do we know and where do we go from here?. *Journal of management*, 30(6), 805–835. <https://doi.org/10.1016/j.jm.2004.05.002>
- Meggison, D., & Clutterbuck, D. (2010). *Further techniques for coaching and mentoring*. Routledge.
- Mullen, C. A., & Fletcher, S. J. (2012). Sage handbook of mentoring and coaching in education. *SAGE Handbook of Mentoring and Coaching in Education*, 1–568.
- Passmore, J., & Evans-Krimme, R. (2021). The future of coaching: a conceptual framework for the coaching sector from personal craft to scientific process and the implications for practice and research. *Frontiers in Psychology*, 12, 715228. <https://doi.org/10.3389/fpsyg.2021.715228>
- Passmore, J., Liu, Q., Tee, D., & Tewald, S. (2023). The impact of COVID-19 on coaching practice: results from a global coach survey. *Coaching: An International Journal of Theory, Research and Practice*, 16(2), 173–189. <https://doi.org/10.1080/17521882.2022.2161923>
- Russo, A. (2004). School-based coaching. *Harvard Education Letter*, 20(4), 1–4.
- Rutar Ilc, Z. (2012). Team coaching- an opportunity to develop capacities of school development team. *Upbringing and education*, 43(3-4), 88–93.
- Sperry, L. (2004). *Executive coaching: The essential guide for mental health professionals*. Psychology Press.
- Townsend, A. M., DeMarie, S. M., & Hendrickson, A. R. (1998). Virtual Teams: Technology and the workplace of the future. *Academy of Management Executive*, 12(3), 17–29. <https://doi.org/10.5465/ame.1998.1109047>
- Tušl, M., Brauchli, R., Kerk sieck, P., & Bauer, G. F. (2021). Impact of the COVID-19 crisis on work and private life, mental well-being and self-rated health in German and Swiss employees: A cross-sectional online survey. *BMC Public Health*, 21, 1–15.
- Wernick, A. M., Conry, J. M., & Ware, P. D. (2021). Coaching in the time of coronavirus 2019: how simulations spark reflection. *International Journal of Mentoring and Coaching in Education*, 10(2), 216–233. <https://doi.org/10.1108/IJMCE-01-2021-0007>
- Whitmore, J. (2017). *Coaching for performance*. London: Nicholas Brealey Publishing.
- Wong, P. T. (2019). Second wave positive psychology's (PP 2.0) contribution to counselling psychology. *Counselling Psychology Quarterly*, 32(3-4), 275–284. <https://doi.org/10.1080/09515070.2019.1671320>
- Yıldırım, M., & Solmaz, F. (2022). COVID-19 burnout, COVID-19 stress and resilience: Initial psychometric properties of COVID-19 Burnout Scale. *Death Studies*, 46(3), 524–532.