

ICH&HPSY 2020**5th International Conference on Health and Health Psychology****JOB SATISFACTION, GRIT AND MINDSETS OF TEACHERS**

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Abstract

Growth mindset, job satisfaction and grit are non-cognitive factors conducive to the optimal exercise of the teaching profession. COVID-19 pandemic affected teachers' profession in an unparalleled way. The resulting effect on their job satisfaction is largely unknown. The purpose of the current study is to assess *the level of Czech teachers' job satisfaction during the COVID-19 pandemic. Furthermore, the relationship between the level of fixed and growth mindset, grit and job satisfaction of teachers is analysed.* Dweck Mindset Instrument (DMI) and *Duckworth's Short Grit scale* supplemented with additional questions was electronically administered to collect a set of data. The research group consisted of kindergarten, primary and secondary school teachers (N = 175). The results show that a large part of the respondent sample is job-satisfied. No relationship was found between the measured level of fixed and growth mindset of teachers, grit and job satisfaction.

Keywords: Grit, job satisfaction, mindset, teachers

1. Introduction

Teaching is extremely challenging work, many factors are involved in whether teachers are successful in their profession. In our study, we will focus on factors such as mindset, grit and job satisfaction.

Grit is defined as perseverance and passion towards a goal over long periods, working towards challenges, and maintaining effort and interest over the years despite failure and adversity (Duckworth et al., 2007; Robertson-Kraft & Duckworth, 2014). Novice grittier teachers outperformed their notice less gritty colleagues and were less likely to leave their classrooms mid-year (Robertson-Kraft, & Duckworth, 2014). Grittier soldiers were more likely to complete an Army Special Operations Forces selection course, grittier sales employees were more likely to keep their jobs, grittier students were more likely to graduate from high school, and grittier men were more likely to stay married (Eskreis-Winkler et al., 2014). These results demonstrate that grit is a successful predictor for achieving goals.

Mindsets, also called implicit theories, are core assumptions that people hold about the plasticity of their abilities. Dweck (1986) defines two types of approaches: an entity implicit theory and incremental implicit theory relabeled as a fixed mindset and growth mindset (Dweck, 2006). People with a growth mindset believe that intelligence, talent, personality or ability can be grown or developed over time. They value effort, so they work harder and spend more time on the task. People with a fixed mindset trust that intelligence and talent is something given and done. They try to look smart and prove their ability (Dweck, 2015a, 2015b). According to the findings of Dweck and Molden (2018), the distribution of a fixed and growth mindset is evenly represented in the population. Testing of children and adults shows that about 40 % of people tend to endorse a fixed mindset, and about 40 % tend to endorse a growth mindset, and about 20 % are undecided.

Job satisfaction refers to the attitudes and feelings of people about their work. Positive attitudes towards the job indicate job satisfaction. Negative and unfavourable attitudes towards the job indicate job dissatisfaction (Armstrong, 2006). One-factor theory of job satisfaction views satisfaction as a continuum - at one pole stands satisfaction and dissatisfaction on the other. This means that when satisfaction decreases, dissatisfaction automatically increases. On the contrary, the two-factor theory views job satisfaction and dissatisfaction as two different alternatives that are influenced by other factory workers independent of each other (Herzberg et al., 2017). In our research, we considered job satisfaction through the lens of one-factor theory. Viktorová (2017) found that job satisfaction for Czech primary school teachers in the Zlín Region is ambivalent, while kindergarten teachers are satisfied with their work. Among Prague primary school teachers, 17 % are very satisfied with their work, 66 % are rather satisfied and 17 % are rather dissatisfied (Kaláčová, 2017).

COVID-19 pandemic has an impact on many sectors, one of which is education. The closure of schools did not automatically stop teaching and education. The gradual closure of schools in the Czech Republic from March 2020 has changed the way of education from face-to-face methods in the classroom to online. COVID-19 pandemic requires Czech teachers to change learning patterns. Research results of Indonesian elementary school teachers showed that online learning helps teachers in the COVID-19 pandemic period, but they felt to be ineffective. Many problems were found, for instance, availability of facilities, network and internet usage, planning, implementation, and evaluation of learning, collaboration

with parents. During these online learning activities, 80 % of the teachers were dissatisfied (Fauzi & Khusuma, 2020). Impact of work from home on Indonesian teachers during COVID-19 pandemic was not just bad, there are several advantages like more flexible in completing work, does not follow office hours, does not need to spend money to pay for transportation, have more free time (Purwanto et al., 2020).

What are the relationships between grit, mindset and job satisfaction? The author of the concept of grit Angela Duckworth has been collaborating with Carol Dweck (author Mindset Theory) on a couple of projects. They have found is that children who have more of a growth mindset tend to be grittier. Duckworth claimed: “The correlation isn’t perfect, but this suggests to me that one of the things that makes you gritty is having a growth mindset.” (Perkins-Gough, 2013, p. 17). The relationship between grit and mindset is examined in diverse research groups differing in the profession, age, nationality, method of data collection, and several respondents. Probably the diversity of research groups is the reason for the ambiguous results. Strength positive correlation between Grit and Mindset score ($r = 0,527$; $p < 0,01$) was detected in Caucasian (UK, Greek) and Asian (Chinese, Arabic) undergraduate and postgraduate students (Barbouta et al., 2020). A weak correlation relationship between Grit and mindset ($r = 0.2$; $p < 0.05$) was found in Australian physiotherapy students (Calo et al., 2019) or Korean office workers ($r = 0,32$; $p < 0.01$) in Lee (2018).

Job satisfaction of nurses demonstrated a moderately positive correlation with grit ($r = 0,3$; $p < 0,001$) in the research of Sellers et al. (2019). Findings are contradictory. Findings from study Reed et al. (2012) found that grit is unrelated to physicians’ job satisfaction. Growth mindset was positively and strongly correlated with well-being ($r = 0,32$; $p < 0,01$) u Chinese secondary school teachers (Zeng et al., 2019).

2. Problem statement

Since March 2020, the incidence of COVID-19 has been recorded in the Czech Republic. COVID-19 pandemic affected teachers’ profession in an unparalleled way. The resulting effect of their job satisfaction is largely unknown.

Mindset, job satisfaction and grit are important aspects influencing whether teachers thrive or fail in their demanding profession. However, the connection between these aspects is not so clear.

3. Research Questions

The study aims to assess the level of Czech teachers’ job satisfaction during the COVID-19 pandemic. Furthermore, the relationship between the level of fixed and growth mindset, grit and job satisfaction of teachers is analysed.

4. Purpose of the study

We operationalized these goals into the following research questions:

Question 1: What is the level of job satisfaction of Czech teachers during COVID-19 pandemic?

Question 2: Is there a relationship between teachers’ level of growth and fixed mindset, grit and job satisfaction?

5. Research methods

5.1. Instruments

The recruited teachers completed an online survey consisting of the questionnaires of the American psychologists Angela Duckworth (Grit Scale) and Carol Dweck (Dweck Mindset Instrument, DMI). The questionnaires were supplemented with additional questions. Dweck Mindset Instrument consists of 16 items that are rated on a 6-point Likert scale with 1 = strongly agree to 6 = strongly disagree. DMI was used to assess how respondents view their intelligence and talent. Dweck Mindset Instrument contains four factors: growth beliefs intelligence, growth beliefs talent, fixed beliefs intelligence, fixed beliefs talent. Grit Scale consists of 8 items that are rated a 5-point Likert Scale with 1 = strongly agree to 5 = strongly disagree. Grit Scale contains two factors. The first factor includes 4 items (2, 4, 7, 8) indicating perseverance of effort, and the second factor entails 4 items (1, 3, 5, 6) indicating consistency of interest.

The results presented in this paper relate to 5 quantitative questions (determining gender, age, length of practice, type of school, job satisfaction). The quantitative question asking about job satisfaction was as follows: “On the scale from 1-10, circle how satisfied you are with your work.” Respondents had the opportunity to express the degree of job satisfaction on a scale from 1 to 10, with 1 = very dissatisfied and 10 = very satisfied.

5.2. Procedure and research sample

The authors present an empirical study; the data were provided by a one-time questionnaire survey. The questionnaire was distributed through e-mail addresses and Facebook groups for teachers during July 2020. From March to June 2020, Czech teachers worked in a different way than they were used to in response to the COVID-19 pandemic. Czech primary, secondary and tertiary schools were closed from 11 March, and kindergartens were recommended to be closed, which was done by 95 % of them during March. Teaching was realised online. Teachers faced the need to adapt their teaching for online teaching, to provide technical equipment for teaching, to improve their IT knowledge, to deliver suitable teaching materials for online teaching. From the end of April, the gradual opening of schools began, whereas the participation of pupils and teachers at school was voluntary. Teachers had to ensure the teaching of all pupils and students, both ways – full time and online. Circumstances regarding the COVID pandemic and emergency measures related to Czech education from March to June 2020 were probably reflected in the level of teacher job satisfaction detected in July 2020.

The research group consisted of 175 people aged 20 to 60 years ($M = 41.86$; $SD = 11.23$), who currently work as teachers with a length of practice of 1 to 40 years ($M = 15.89$; $SD = 12.13$). The sample included 59 teachers working in kindergarten (33.7 %), 66 teachers working in primary school (37.7 %), 21 teachers working in a lower-secondary school (12.0 %), 15 teachers working at secondary schools (8.6 %) and 14 teachers working in several types of schools at the same time, e.g. primary and secondary schools (8.0 %). In terms of gender, there were 166 women (94.9 %) and 9 men (5, 1 %).

6. Findings

6.1. Job satisfaction of teachers

Teachers had the opportunity to express the degree of satisfaction with the profession on a scale from 1 to 10, with 1 = least satisfied and 10 = very satisfied. The most frequently chosen value was 8 (33.1 %), the average value of satisfaction was 8.22 (SD = 1.66). More detailed results are shown in Figure 1.

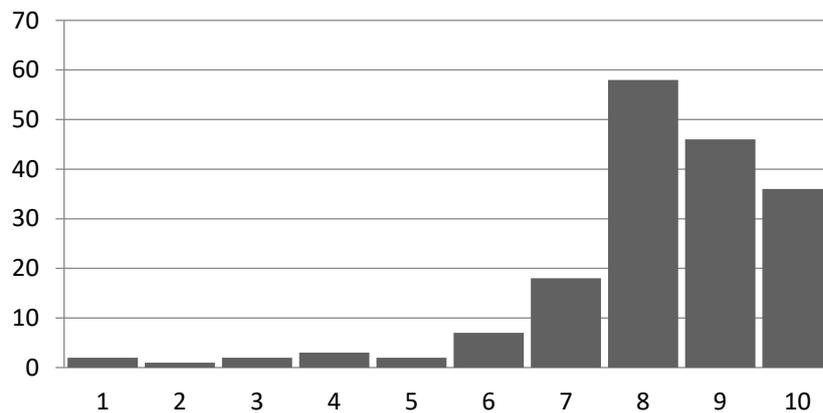


Figure 1. Job satisfaction of teachers

Furthermore, it was found out how satisfaction with the teaching profession is related to the age and length of teachers' practice. Pearson's correlation coefficient was chosen for the calculation. No statistically significant correlations were found between job satisfaction and age ($r = -0.057$; $p = 0.455$) and between job satisfaction and length of practice ($r = -0.121$; $p = 0.111$).

6.2. A relationship between teachers' mindset, grit and job satisfaction

To present the examined characteristics of the respondent sample a descriptive analysis was performed. The following table 1 contains descriptive data of the respondents who completed Duckworth's Short Grit scale (N = 175) and Dweck's Mindset Instrument (N = 174).

Table 1. Descriptive statistics: grit and mindset

	Mean	Std. Deviation	Minimum	Maximum
Growth Beliefs Intelligence	3.63	.87	1.75	5.75
Growth Beliefs Talent	3.52	1.00	1.00	6.00
Fixed Beliefs Intelligence	3.52	.90	1.00	6.00
Fixed Beliefs Talent	3.57	.89	1.00	6.00
Total Mindset score	3.52	.71	1.40	5.90
Perseverance (grit)	3.58	.74	1.75	5.00
Consistency of interest (grit)	3.82	.70	1.75	5.00
Total Grit score	3.70	.57	2.25	4.88

The relationship between the level of fixed and growth mindset, grit and job satisfaction of teachers was analysed using Pearson's correlation coefficient. No statistically significant correlations were found

between Total Grit score, Total mindset score and job satisfaction. The perseverance subscale is slightly positively correlated with job satisfaction ($r = 0.159$; $p < 0.05$).

6.3. Discussion

In this subchapter, we will deal with the interpretation of the obtained results concerning the research questions and possible limits of the research.

The first research question dealt with the level of job satisfaction of Czech teachers during the COVID-19 pandemic. Teachers had the opportunity to express the degree of satisfaction with the profession on a scale from 1 to 10, with 1 = least satisfied and 10 = very satisfied. The average satisfaction value was 8.22 (SD = 1.66). We were looking for the most up-to-date research to determine the job satisfaction of Czech teachers before the COVID-19 pandemic. We found two surveys from 2017, the scale on which teachers expressed their job satisfaction differed. We converted the results of these two surveys on a 10-point scale to allow comparison with our research. For primary and kindergarten teachers, the average satisfaction was 6.32 (Viktorová, 2017), for secondary school teachers the average satisfaction was 7.5 (Kaláčová, 2017). Teachers in our research cohort were more satisfied during the COVID-19 pandemic than teachers from the 2017 (pre-pandemic) surveys. There is not much research in the published foreign literature dealing with teacher's job satisfaction during the COVID-19 pandemic. According to the findings of Fauzi and Khusama (2020), 80 % of Indonesian teachers were dissatisfied at the time of online teaching. On the contrary, most of our respondents were satisfied with their work. Czech teachers worked 3-4 months from home. It was up to the management of the schools and also to the teachers' possibilities, how the online teaching was conducted, as well as what demands were placed on teachers. According to the high job satisfaction of our respondents, it seems that the advantages of the emergency measures taken in connection with the COVID-19 pandemic outweighed the disadvantages. Of course, it is necessary to take into account that our results may be distorted by the limits of our research, namely the lack of representativeness of the research set related to occasional data collection, and the fact that we got answers from the more open and willing teachers - but this fact distorts every questionnaire survey. Other limitations of our study are the scale of finding job satisfaction. Grit Scale, Dweck Mindset Instrument, like all self-report scales, is vulnerable to social desirability bias.

The second research question concerned the relationship between teachers' level of growth and fixed mindset, grit and job satisfaction. No statistically significant correlations were found between Total Grit score, Total mindset score and job satisfaction. The relationship between grit and mindset is examined in different research cohorts differing in the profession, age, nationality, data collection method, number of respondents (e.g. Barbouta et al., 2020; Calo et al., 2019; Lee, 2018). Probably the diversity of the research cohorts is the reason for the differing results regarding the relationship between grit and mindset. Job satisfaction of nurses demonstrated a moderately positive correlation with grit ($r = 0.3$; $p < 0.001$) in the research of Sellers et al. (2019). Findings are contradictory. Results from the study of Reed et al. (2012) revealed that grit is unrelated to physicians' job satisfaction. In our research, the subscale of perseverance (from grit) correlates weakly positive with job satisfaction ($r = 0.159$; $p < 0.05$).

7. Conclusion

Teaching is by all accounts a meaningful but also a demanding profession. Many factors contribute to whether teachers are successful in their profession. In our study, we focused on job satisfaction, the assumption that intelligence level is not a fixed number and can change (growth mindset), and perseverance and passion towards a long-term goal by overcoming obstacles and challenges (grit). Understanding the relationships between growth mindset, grit and job satisfaction in teachers can be one step in providing better education. Based on the results of study and discussion, a large part of the respondent sample (N = 175) is job-satisfied during COVID-19 pandemic. No relationship was found between the measured level of fixed and growth mindset of Czech teachers, grit and job satisfaction. We, therefore, recommend verifying further research. The current study findings can provide the framework for other studies examine the relationship between mindset, job satisfaction and grit.

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