# **Emotional Status of MalaysianTeachers on Online Teaching during the COVID-19 Pandemic**

# BaoGuo AN<sup>1,2</sup> & KahHeng CHUA<sup>3\*</sup>

- 1. Department of Educational Foundations and Humanities, Faculty of Education, University Malaya, 50603, Kuala Lumpur, Malaysia
- 2. School of Marxism, Zhejiang A&F University, Hangzhou, 311300, Zhejiang, Chinam13734284601@163.com
- 3. Department of Mathematics and Science Education, Faculty of Education, University Malaya, 50603, Kuala Lumpur, Malaysiachuakh@um.edu.my

\*Corresponding author: <a href="mailto:chuakh@um.edu.my">chuakh@um.edu.my</a>

Abstract: This paper examines Malaysian teachers' (N=47) emotions on online teaching during the COVID-19 pandemic. Data for this study were collected using an online questionnaire, and the results showed that teachers only agreed that they have positive emotions (M=3.64, SD=0.34) on the fully online teaching caused by the COVID-19 pandemic around the world. Teachers present different emotions due to their gender, grade taught, years of teaching experience, and subject taught.

Keywords: Online Teaching, Teachers' Emotion, Anxiety, Enjoyment, Pride, Anger

### 1. Introduction

The COVID-19 pandemic has harmed the average production and life of people worldwide, with the education sector being one of the most visible parts to bear the harmful effects of the operational control process(Karuppannan & Mohammed, 2020; MacIntyre et al., 2020). According to the United Nations' Educational, Scientific and Cultural Organization (UNESCO), more than one billion students in the 129 countries around the world have been forced to interrupt their learning due to school closures (Karual et al., 2020; Sundarasen et al., 2020; Tamin & Mohamad, 2020). Even so, the regular work of teaching and learning is still required, and in this context, "emergency online homeschooling"(Bozkurt & Sharma, 2020; MacIntyre et al., 2020) has emerged avoid gaps and minimize the toll of an ongoing pandemic on students'learning.

In Malaysia, to reduce the negative impact of COVID-19 pandemicon the education sector and ensure the normal pace of education teaching, the government likewise decided to launch online teaching nationwide, in which nearly five million school students and 1.2 million university students were included(Kamal et al., 2020).However, Izhar et al.(2021)pointedout that the complete replacement of face-to-face education with online education as a teaching strategy to ensure educational continuity has never happened in Malaysia. Moreover, it was believed that online teaching was a more complex process that needs teachers' careful planning, designing, and determination of goals to create an actionable learning ecology(Bozkurt & Sharma, 2020; Ghateolbahra & Samimi, 2021; Kamal et al., 2020), and then it is conceivable that not all Malaysian teachers can adapt in a short period when online teaching becomes a new norm in the education sector.

Furthermore, previous research has established the importance of teachers as first-line workers in education(Sokal et al., 2020), and it is therefore their sustained behaviors and health emotions can be regarded as a successful educational response to the current pandemic. Compared with other professions, teaching is a more emotionally charged profession(Hong et al., 2016; Olson et al., 2019), and it has been argued that the emotional bond teachers have with their students influences their decisions about instructional strategies, curriculum design, lesson planning(Frenzel et al., 2015; Hagenauer et al., 2015;

MacIntyre et al., 2020; Naylor & Nyanjom, 2020; Regan et al., 2012; Zheng et al., 2021), and other teaching behavior (Lohbeck et al., 2018). In this case, Naylor and Nyanjom(2020) supported and advocated that changes in teaching models and pedagogy have the potential to disrupt the deep and personal connections between students and teachers, which can cause poor emotional responses to each other.

Besides, Cook's (2018)research showed that it was clear that teachers who step out of the physical classroom and into the digital classroom take risks that can lead to negative emotions, such as frustration and dissatisfaction, and that these emotions are inevitable and required. Therefore, during online teaching, in addition to updating their teaching strategies and schedules based on the performance of the unreachable students in front of the camera, teachers have to pay moreattention to their own emotions, which may fall into anxiety by uncertainty (Sundarasen et al., 2020; Zheng et al., 2021). And it can be concluded from the scholars mentioned above that the latter: the teacher's emotion during online teaching, is more important.

Therefore, the present study was designed to assess the emotions of teachers inMalaysian Independent Chinese Secondary School (MICSS) during online teaching caused by the COVID-19 pandemic.This section has analyzed the causes of selecting this research topic and has argued the critical role of teachers' emotions in their teaching practice. The next section of this paper will review the relevant literature.

### 2. Review of Related Studies

Research on COVID-19 pandemic and its effects is rapidly emerging, however, the vast majority of studies to date have investigated it from the perspective of the public, the general population, and health care professionals(Ding & Zhao, 2020; Husky et al., 2020; Tzafilkou et al., 2021), and most of these studies have been conducted in China or other Western countries(Sundarasen et al., 2020). Research on the impacts of COVID-19 pandemic on the educational domain has been conducted more from the students' perspective, for example, the psychological consequences of COVID-19 on students' well-being and academic performanceand students'perceptions of online learning(Tzafilkou et al., 2021); students' motivation, behavioral performance(Ding & Zhao, 2020); the effects of confined living environments on students'psychological well-being(Husky et al., 2020); the relationship between college students'perception of online learning crack-up and their psychological distress(Hasan & Bao, 2020).

Taken together, it is now well established that online teaching may promote kinds of difficulties to students' learning due to the COVID-19 pandemic, no matter the students' psychological or non-psychological factors. Although it was a widely held view that successful students' academic performance begins with caring about teachers, prioritizing their emotions (Frenzel et al., 2015; Huamán-Romaní, Y. L. Castillo-Patiño, L. A. Molina-Chircca et al., 2021; Kaden, 2020), the impacts of online teaching caused by the Covid-19 pandemic on teachers, let alone on their mental health, remains unclear. And the main reason for this situation was that most of these COVID-19 oriented researches lack the conclusion of emotions in their list of examined constructs(Tzafilkou et al., 2021), especially teachers'emotions toward the online teaching they are suddenly being asked to conduct.

In the context of Malaysia, to determine the effects of COVID-19 pandemic, Izhar et al.(2021)discussed the challenges teachers face in launching online teaching. Tamin and Mohamad(2020)explored the challenges faced by elementary school students, teachers, and parents in using Google Classroom as an online teaching tool and concluded that weak Internet connectivity and

inadequate technical equipment were difficulties to be overcome.By examining university students' anxiety during the COVID-19 pandemic and the lockdown period from April to May 2020, Sundarasen et al.(2020)concluded that students' age, gender, academic major, and living conditions were significantly associated with anxiety levels.Karuppannan and Mohammed(2020)predicted that teaching methods, psychological factors, language skills, and proficiency level influenced online learning for English language learners during the COVID-19 pandemic.In their case study of a Pre-UniversityCenter,Kamal et al.(2020)found that in the face of a disaster like the COVID-19 pandemic, online learning does not become a hindrance but rather a blessing to academics. The list goes on.

Similarly, research to date has not determined the impacts of online teaching in the context of COVID-19 on Malaysian teachers'emotions. However, Badia et al. (2019) advocated that it was essential to understand the impact of online teaching in an epidemic on teachers' emotions and the target factors that may influence their emotions. And in their view, it will help educational institutions more effectively support teachers' online teaching and encourage positive emotions, which can lead not only to improved teachers' professional well-being but also to enhanced students' online learning outcomes.

Considering all of the abovementioned shreds of evidence, this research intends to determine the impacts of online teaching due to the COVID-19 pandemic on Malaysian secondary school teachers' emotions. Moreover, it is hoped that this research will contribute to a deeper understanding of the impacts of COVID-19 on the Malaysian educational sector. So far this paper has focused on the research background and literature review. The following section will discuss the research methodology that was applied by this research.

## 3. Methods

A quantitative approach was employed in this study, and this section has been divided into threeparts. The first part deals with the context of the study, followed by the description of data collection methods and respondents. Data management and analysis were performed using SPSS version 26.

### 3.1 Context of the Study

This study was conducted inMalaysian Independent Chinese Secondary School (MICSS). MICSS is the unique Malaysian vernacular school, privately owned by all the Malaysian Chinese Community.MICSS have self-supporting administrationand are deeply rooted in the local Chinese community, the mission of these schools is to produce students with excellent academic and career prospects; and to continuously enhance their ability to serve the sustainable and healthy development of Malaysia, while simultaneously, sustaining theirmother culture and language. The location of participating MICSS is located in Negeri Sembilan, Malaysia, and it was the 16th MICSS in Malaysia to give up government education subsidy (1962), continued with Mandarin Chinese education, and did not convert to a state-type secondary school (SekolahJenisKebangsaan).

### 3.2 Data Collection and Analysis

Since different cultures have different understandings of emotions and these understandings may change within cultures over time(Borrachero et al., 2014), it is, therefore, the data for this study were collected through a questionnaire in which all questions were formed based on Hong et al.'s (2016)revised Achievement Emotion Questionnaire - Teacher (AEQ-T). Compared to Frenzel et al.'s (2016)version, the revised version is more adapted to Asian cultures and advocates four dimensions of pride, enjoyment, anger, and anxiety to analyze teachers' emotions.Pride and enjoyment are the two most

prominent positive emotions among teachers, and there is a large volume of published studies describing the positive role of teachers' pride and enjoyment in constructing the relationship between them and their students, and in the discipline during their teaching practice (Borrachero et al., 2014; Lohbeck et al., 2018). This study will investigate teachers' pride and enjoyment from their preparation and implementation of the lesson planning. Likewise, teachers' two opposing emotions, anger, and anxiety, will also be analyzed from their preparedness and the application of online teaching.

An online survey was created on Google Form, in which, in addition to asking all respondents about their gender, grade taught, subject taught, and years of teaching experience, all other questions (as shown in Table1) in the questionnaire asked participants to rate how strongly they agreed with each statement. The Likert scale of 1 to 5 was used, i.e. "1- Strongly disagree, 2- Disagree, 3- Neutral, 4- Agree, 5- Strongly agree".

	Table1. Lists of Questions for Each Domain					
	Domain	Questions				
	Anxiety	• Preparing to teach online often makes me worry.				
		• I feel uneasy conducting online teaching.				
Α		• I generally feel tense and nervous while teaching online.				
		• I am often worried that my online teaching is not going so well.				
	Pride	• I am proud of my preparation for online teaching.				
B		• I get a feeling of pride as a result of my work.				
		• I am pride of the way I am teaching online.				
	Enjoyment	• I often have reasons to be happy while teaching online.				
C		• I generally enjoy online teaching.				
U		• I generally have fun preparing my online teaching.				
		• I generally teaching online with enthusiasm.				
	Anger	• Sometimes I get really mad while I teach.				
D		• I always have reasons to be angry while I teach.				
		• Some days, teaching online just infuriates me.				

To ensure the language used in the questionnaire is appropriate and able to be understood by all the respondents, the questionnaire was checked by an English language teacher. Moreover, in order to ensure that the data collected is valid and reliable, the pilot study was also conducted. Results of the pilot study showed that all the questions in the questionnaire were in the acceptable range with an alpha value of more than0.7(Cortina, 1993; Van Griethuijsen et al., 2015).The data obtained based on an online questionnaire was analyzed using SPSS version 26. The respondents' demographic data were analyzed using descriptive statistics to determine their distribution. Meanwhile, inferential statistics such as independent samples t-test was employed to determine the differences between two groups' emotions to online teaching (pride, enjoyment, anger, and anxiety) provided by teachers serving in the participant MICSS.

In the subsequent sections, the results gathered from the questionnaire will be reported from three aspects. One is the online survey, the other is SPSS, and another is inferential analysis.

## 3.3 Online Survey

A total of 47 respondents completed the online survey. This section of the questionnaire required respondents to give information ontheir basic demographic, including gender, years of teaching (with ten years as the limit), grade taught (exam class or non-exam class), and subject taught (Science and Humanities), and their overall individual information is shown in Table 2.

Table2. Demographic Characteristics of the Respondents						
Variable	Frequency	Percentage				
Gender						
Male	15	31.9				
Female	32	68.1				
Years of Teaching						
<10 years	26	55.3				
>=10 years	21	44.7				
Grade Taught						
Exam class	25	53.2				
non-Exam class	22	46.8				
Subject Taught						
Science	18	38.3				
Humanities	29	61.7				

As can be seen from the data in Table 2, 68.1% of the 47 respondents were female, with more than one-half of them teaching subjects related to humanities. After confirming the respondents' demographic information, in the subsequent part of the questionnaire, respondents were asked to select how strongly they agreed with each statement, and these data were analyzed with the assistance of SPSS. The results are presented in the next section.

## 3.4 SPSS

Based on the SPSS result, it was found that in general, teachers working atthe participating MICSS only slightly agreed that they had positive emotion when they were conducting fully online teaching during the lockdown to their students (M=3.64; SD= 0.34). When looking into more detail for each domain, the mean scores range between neutral to the positive emotional stage when providing online teaching to their students.For instance, teachers serving in the sample MICSS presented agreement towards their anxiety and anger during their online teaching, with the mean scores of 4.04 and 4.13, the standard deviation of 0.60 and 0.50 respectively. The result indicates that even though the school-wide online teaching has been implemented in the participating MICSS for almost one year, its teachers still feel anxious about teaching online. Likewise, respondents also felt that they were easily becoming angry, which may be caused by their inability to stop their students' misbehavior on time during online instruction.

Unexpectedly, teachers working at the participating MICSS did not show pride in their online teaching and remained neutral (M=2.89; SD=0.52) in this domain. However, the most striking result from the data is that respondents reported that they slightly enjoy online teaching (M=3.43; SD=0.57), even though they may become angry and anxious with this type of teaching. The table below illustrates the mean score and standard deviation for each domain with the corresponding response.

Domain	Mean	Standard Deviation	Response
Anxiety	4.02	0.60	Positive
Pride	2.89	0.52	Neutral
Enjoyment	3.43	0.57	Slightly Positive
Anger	4.13	0.50	Positive
Overall	3.64	0.34	Slightly Positive

## **3.5 Inferential Analysis**

Few variables, such as teachers' gender, years of teaching, subject taught, and grade taught, related to their emotions during online teaching that caused by the national lockdown were further analyzed. Based on the outputs from the independent sample t-tests, it can be concluded that some variables are statistically significant. Table 4 shows an overview of the mean and standard deviation for each variable. The grey-shaded columns indicate the group that scored highest in mean for each domain.

Domain	Domain Gender		Years of Teaching		Grade Taught		Subject Taught	
	Male	Female	<10 years	>=10 years	Exam Class	Non-Exam Class	Science	Humanities
A	3.63	4.22**	3.87	4.25*	4.22*	3.84	3.76	4.20*
Anxiety	0.61	0.50	0.66	0.45	0.53	0.62	0.58	0.55
D!.J.	2.67	3.00*	2.96	2.81	2.83	2.97	2.85	2.92
Pride	0.44	0.52	0.53	0.50	0.49	0.54	0.46	0.55
<b>F</b> :4	3.47	3.41	3.26	3.63*	3.61*	3.22	3.47	3.40
Enjoyment	0.50	0.59	0.50	0.57	0.53	0.52	0.61	0.53
A 19 00 19	3.87	4.23*	4.10	4.17	4.19	4.08	4.17	4.11
Anger	0.55	0.43	0.50	0.51	0.48	0.52	0.45	0.54
Orionall	3.43	3.74**	3.55	3.74*	3.74*	3.53	3.57	3.68
Overall	0.35	0.30	0.35	0.32	0.31	0.34	0.33	0.35

Table4. Summary of Mean and Standard Deviation of all Variables

\* Sig value < 0.05; \*\* Sig value < 0.01

From the perspective of teachers' gender, a significant difference was obtained from the anxiety domain. Female teachers from the sample MICSS scored higher mean (M=4.22, SD=0.50) than their male colleagues (M=3.63, SD=0.61), t(45)=-3.54, p=0.02. Meanwhile, for the two domains, such as pride and anger, there were also significant differences obtained from both groups of teachers serving in the participating MICSS; it can be found that female teachers (M=4.23, SD=0.43) may become angrier about their online teaching than the male teachers (M=3.87, SD=0.55), t(45)=-2.63, p=0.01 and also more pride than male teacher during the online teaching t(45)=-2.14, p=0.04 with the mean value 3.00 and 2.67 respectively. Although there is little difference obtained from the enjoyment domain, male teachers may show enjoyment emotion to their online teaching. In general, the female teachers have significantly higher emotion than the male teachers t(45)=-3.12, p=0.00.

In terms of years of teaching, these data present a very interesting result in that those teachers with more than ten years of teaching experience showed both anxiety (M=4.25, SD=0.45) and enjoyment (M=3.63, SD=0.57) emotion about online teaching due to the COVID-19 pandemic compared to those with less than ten years of teaching experience t(45)=-2.29, p=0.03. However, teachers with less than ten

years of teaching experience were more likely to show pride in online teaching than their seniors and scored higher. In the domain of anger, teachers with different years of teaching did not show particularly significant differences in their online teaching. Significant result also found in the enjoyment domain where teachers with more than ten years of teaching experience (M=3.63, SD=0.57) is relatively more enjoy conducting online teaching than their counterparts that teach less than ten years (M=3.26, SD=0.50). In overall, teachers with more than 10 years teaching experience significantly have more unstable emotion when conducting online teaching as compared to teachers that teach less than 10 years, t(45)=-2.04, p<0.05.

Meanwhile, when looking into teachers' grades taught, it can be found that, apart from the pride domain, teachers taught exam class all scored higher than those taught the non-exam class in the other three domains, especially in the anxiety and enjoyment domains. The results signify that teachers who taught exam grades tended to be more enjoy their online teaching (M=3.61, SD=0.53), t(45)=2.57, p=0.01, however, they might become easier anxious about their online teaching (M=4.22, SD=0.53), t(45)=2.28, p=0.03. In the anger domain, regardless of whether teachers taught exam or non-exam classes have near similar mean scores, which means that they all become angry during their online teaching caused by the pandemic all over the world.

Regarding the subjects taught, it was possible to find that teachers teaching humanities had higher mean scores in the domains of anxiety and pride than those teaching science, particularly in the domain of anxiety (M=4.20, SD=0.55), which was a significant difference in the negative emotions experienced by teachers taught different subjects when conducting online teaching, t(45)=-2.62, p=0.01. In the other two domains, teachers teaching sciences had higher but insignificant mean scores than those teaching humanities.

### 4. Discussions

In this study, teachers only agreed that they have positive emotions (M=3.64, SD=0.34) on the fully online teaching caused by the COVID-19 pandemic around the world. As a result of their gender, grade taught, years of teaching experience, and subject taught (four domains derived from the statements in this study), teachers present different emotions. Such results indicate that respondents' emotional response to online teaching is relatively positive, mainly because, following the implementation of the national lockdown by the Malaysian government; teachers were suddenly asked to shift from face-to-face teaching to online teaching. Such a shift was very challenging for all teachers since they had not operated before fully implementing online teaching. Therefore, this paradigm shift in the education sector, particularly in terms of the teaching environment, harms teachers' emotions, and as Frenzel et al. (2015) proposed, if teachers are not assisted in dealing with their negative emotions appropriately, it will directly affect their teaching effectiveness and therefore reduce their professional well-being and sense of belonging.

To be specific, this study found that teachers' emotions during online teaching were related to the subjects they taught, consistent with Frenzel et al. (2015), who similarly noted that teachers' emotions vary systematically depending on their discipline; however, the current research has been unable to demonstrate the importance of discipline on teachers' enjoyment and anger, and weaker evidence of subject specificity for teachers' anxiety given by Frenzel et al. (2015). Conversely, the present study concluded that the subjects teachers taught were associated with their anxiety and did not significantly correlate with the other three domains.

In addition, this study found that the gender of the teacher had a more significant impact on the other three areas (anxiety, pride, and anger), except for the enjoyment area, where no significant difference was seen. Specifically, female teachers were more likely to have negative emotions than male teachers during online teaching, not only did the female teachers tend to become anxious and angry, but they were also prone to be proud of their online teaching effectiveness. This outcome is contrary to that of Lohbeck et al. (2018), who found there are no substantial gender effects for teachers' emotions.

Talking about the relationship between years of teachers' teaching experience and their emotions during online teaching, the current research found that more experienced teachers were more anxious about their online teaching due to their lower knowledge base of the application of computer software compared to the teachers with less teaching years. Teachers with more teaching experience are from the older generation, where most of them might not be techno-savvy. The switching from face-to-face to the entire virtual teaching environment might worry them as they would be facing difficulties in handling the devices and also might face various uncertainties such as students' participation, expectations just to name a few. This finding broadly supports the work conducted by Lohbeck et al. (2018), who also discovered that the younger generation of pre-service teachers is generally more familiar with media use, which promotes their lower anxiety emotion in online teaching. This study also found that older teachers enjoyed their online teaching more than younger ones, which may be closely related to their strong subject knowledge, extensive teaching experience, and gradually increasing computer proficiency.

Teachers from examination classes are more emotionally anxious in online teaching. This might be due to the nature of public examinations needed to be faced by the students in that particular year of study. Teachers' expectations and pressure from school and parents are factors that might cause teacher anxiety in handing the online teaching as they have to prepare the students to sit for public examination. These anxieties of teachers might lead to some other side effects of online teaching, such as the learning environment, the participation, engagement, and the motivation of students to learn in the online class. Hence, it is crucial to take care of teachers' emotions, especially those in examination classes, because this fully online teaching might make them feel stressed and affect students' performance in the class and examination.

When looking into science and humanities teachers' emotional status while conducting online teaching, it was found that the anxiety of science teachers is lower than their colleagues, and their enjoyment of online teaching is relatively higher. Such a situation might be due to the support and availability of various teaching and learning materials on the internet. Science subjects such as chemistry, biology, and physics share almost the same content and curriculum across the world. Hence, scientific communities have created and made the resources available for convenience and use among educators worldwide.Besides, various simulation resources have also helped teachers explain scientific concepts to their students, which would help to lessen the preparation times and make the science learning more exciting and engaging.

## 5. Conclusions

During the pandemic, online teaching became a norm for most education institutions all over the world. Although it manages to reduce the gaps in providing learning opportunities to students, limited studies have been conducted to study the emotional status of teachers in conducting and handling their online teaching. It is not denied that teachers should be finding ways to adapt to online teaching via virtual platforms; however, the readiness of teachers and external support for teachers are relatively important. Conventionally teachers are trained to teach and conduct their classes in a physical setting.

The sudden paradigm shift from physical to virtual has upset the usual teaching and learning environment, and this has caused various problems for teachers. Hence more research study should be done in the area of teacher's readiness, professional development, and support needed in order for them to handle the virtual classroom confidently and at the same time does not affect their emotion and wellbeing. In addition, pre-service providers such as teacher training colleges and universities need to integrate virtual teaching in their curriculum as early preparation for future teachers to handle fully online teaching to accommodate such a paradigm shift in times to come.

## References

- Badia, A., Garcia, C., & Meneses, J. (2019). Emotions in response to teaching online: Exploring the factors influencing teachers in a fully online university. *Innovations in Education and Teaching International*, 56(4), 446–457. https://doi.org/10.1080/14703297.2018.1546608
- Borrachero, A. B., Brígido, M., Mellado, L., Costillo, E., & Mellado, V. (2014). Emotions in prospective secondary teachers when teaching science content, distinguishing by gender. *Research in Science* & *Technological Education*, 32(2), 182–215. https://doi.org/10.1080/02635143.2014.909800

Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, *15*(1), i–v. https://orcid.org/0000-0002-4520-642X

- Cook, J. P. (2018). Online Education and the Emotional Experience of the Teacher. In *New Directions* for *Teaching and Learning* (pp. 67–75). Wiley Online Library. https://doi.org/10.1002/tl.20282
- Cortina, J. M. (1993). What Is Coefficient Alpha? An Examination of Theory and Applications. *Journal of Applied Psychology*, 78(1), 98–104. https://doi.org/10.1037/0021-9010.78.1.98
- Ding, Y., & Zhao, T. (2020). Emotions, engagement, and self-perceived achievement in a small private online course. *Journal of Computer Assisted Learning*, 36(4), 449–457. https://doi.org/10.1111/jcal.12410
- Frenzel, A. C., Becker-Kurz, B., Pekrun, R., & Goetz, T. (2015). Teaching this class drives me nuts! -Examining the person and context specificity of teacher emotions. *PLoS ONE*, *10*(6), e0129630. https://doi.org/10.1371/journal.pone.0129630
- Frenzel, A. C., Pekrun, R., Goetz, T., Daniels, L. M., Durksen, T. L., Becker-Kurz, B., Klassen, R. M., & Klassen, R. M. (2016). Measuring Teachers' enjoyment, anger, and anxiety: The Teacher Emotions Scales (TES). *Contemporary Educational Psychology*, 46, 148–163. https://doi.org/10.1016/j.cedpsych.2016.05.003
- Ghateolbahra, A., & Samimi, F. (2021). Classroom Management Strategies in Online Environment: AComparative Study on Novice and Experienced Teachers. *Turkish Journal of Computer and Mathematics Education*, 12(14), 510–516. https://doi.org/10.16949/turkbilmat.702540
- Hagenauer, G., Hascher, T., & Volet, S. E. (2015). Teacher emotions in the classroom: associations with students' engagement, classroom discipline and the interpersonal teacher-student relationship. *European Journal of Psychology of Education*, 30(4), 385–403. https://doi.org/10.1007/s10212-015-0250-0
- Hasan, N., & Bao, Y. (2020). Impact of "e-Learning crack-up" perception on psychological distress among college students during COVID-19 pandemic: A mediating role of "fear of academic year loss." *Children and Youth Services Review*.
- Hong, J., Nie, Y., Heddy, B., Monobe, G., Ruan, J., You, S., & Kambara, H. (2016). Revising and

Validating Achievement Emotions Questionnaire – Teachers (AEQ-T). *International Journal of Educational Psychology*, 5(1), 80–107. https://doi.org/10.17583/ijep.2016.1395

- Huamán-Romaní, Y. L. Castillo-Patiño, L. A. Molina-Chircca, E., Castillo-Alarcón, A., Juro-García5a, R., & Quispe-Anchayhua, M. (2021). Is there servant leadership and job satisfaction in education teachers during the Covid-19 pandemic ? *Urkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(14), 172–179.
- Husky, M. M., Kovess-Masfety, V., & Swendsen, J. D. (2020). Stress and anxiety among university students in France during Covid-19 mandatory confinement. *Comprehensive Psychiatry*. https://doi.org/10.1016/j.comppsych.2020.152191
- Izhar, N. A., Al-dheleai, Y. M., & Na, K. S. (2021). Teaching in the Time of Covid-19: The Challenges Faced By Teachers in Initiating Online Class Sessions. *International Journal of Academic Research in Business and Social Sciences*, 11(2), 1294–1306. https://doi.org/10.6007/ijarbss/v11-i2/9205
- Kaden, U. (2020). Covid-19 school closure-related changes to the professional life of a k–12 teacher. *Education Sciences*, *10*(6), 165–179. https://doi.org/10.3390/educsci10060165
- Kamal, A. A., Shaipullah, N. M., Truna, L., Sabri, M., & Junaini, S. N. (2020). Transitioning to online learning during COVID-19 Pandemic: Case study of a Pre-University Centre in Malaysia. *International Journal of Advanced Computer Science and Applications*, 11(6), 217–223. https://doi.org/10.14569/IJACSA.2020.0110628
- Karuppannan, S., & Mohammed, L. A. (2020). Predictive Factors Associated with Online Learning during Covid-19 Pandemic in Malaysia: A conceptual Framework. *International Journal of Management and Human Science (IJMHS)*, 4(4), 19–29. https://ejournal.lucp.net/index.php/ijmhs/article/view/1236
- Lohbeck, A., Hagenauer, G., & Frenzel, A. C. (2018). Teachers' self-concepts and emotions: Conceptualization and relations. *Teaching and Teacher Education*, 70, 111–120. https://doi.org/10.1016/j.tate.2017.11.001
- MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. *System*, 94, 1–13. https://doi.org/10.1016/j.system.2020.102352
- Naylor, D., & Nyanjom, J. (2020). Educators' emotions involved in the transition to online teaching in higher education. *Higher Education Research and Development*, 1–15. https://doi.org/10.1080/07294360.2020.1811645
- Olson, R. E., McKenzie, J., Mills, K. A., Patulny, R., Bellocchi, A., & Caristo, F. (2019). Gendered emotion management and teacher outcomes in secondary school teaching: A review. *Teaching and Teacher Education*, 80, 128–144. https://doi.org/10.1016/j.tate.2019.01.010
- Regan, K., Evmenova, A., Baker, P., Jerome, M. K., Spencer, V., Lawson, H., & Werner, T. (2012).
  Experiences of instructors in online learning environments: Identifying and regulating emotions.
  *Internet and Higher Education*, 15(3), 204–212. https://doi.org/10.1016/j.iheduc.2011.12.001
- Sokal, L., Trudel, L. E., & Babb, J. (2020). Canadian teachers' attitudes toward change, efficacy, and burnout during the COVID-19 pandemic. *International Journal of Educational Research Open*, 7(57), 1–8. https://doi.org/10.1016/j.ijedro.2020.100016
- Sundarasen, S., Chinna, K., Kamaludin, K., Nurunnabi, M., Baloch, G. M., & Khoshaim, H. B.Sukayt, A. (2020). Psychological impact of covid-19 and lockdown among university students in malaysia: Implications and policy recommendations. *International Journal of Environmental Research and*

Public Health, 17(17), 1–13. https://doi.org/10.3390/ijerph17176206

- Tamin, N. H., & Mohamad, M. (2020). Google Classroom for Teaching and Learning in Malaysia Primary School during Movement Control Order (MCO) due to Covid-19 Pandemic: A Literature Review. *International Journal of Multidisciplinary Research and Publications*, 3(5), 34–37.
- Tzafilkou, K., Perifanou, M., & Economides, A. A. (2021). Negative emotions, cognitive load, acceptance, and self-perceived learning outcome in emergency remote education during COVID-19. *Education and Information Technologies*, 1–25. https://doi.org/10.1007/s10639-021-10604-1
- Van Griethuijsen, R. A., van Eijck, M. W., Haste, H., den Brok, P. J., Skinner, N. C., Mansour, N., ..., & BouJaoude, S. (2015). Global patterns in students' views of science and interest in science. *Research in Science Education*, 45(4), 581–603. https://doi.org/10.1007/s11165-014-9438-6
- Zheng, J., Huang, L., Li, S., Lajoie, S. P., Chen, Y., & Hmelo-Silver, C. E. (2021). Self-regulation and emotion matter: A case study of instructor interactions with a learning analytics dashboard. *Computers and Education*, 1–26. https://doi.org/10.1016/j.compedu.2020.104061