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REVIEW

# The Influence of Management Process Skills and Classroom Managerial Creativity Abilities on Science Teachers' Work Productivity in Online Learning

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# Abstract

This study aims to determine the effect of management process skills and classroom managerial creativity on the work productivity of science teachers in online learning. This study uses a quantitative approach. Respondents in the study were madrasa principals and teachers who carried out online learning (during the Covid-19 period). In this study, respondents came from madrasas at the Madrasah Tsanawiyah (MTs) level in Muaro Jambi Regency, Jambi Province and Madrasah Tsanawiyah, Palembang City, South Sumatra Province. With the determination of the sample is done randomly to capture 10 madrasas. Thus, the total respondents in this study were 40 science teachers consisting of 4 teachers from each madrasa. Based on the data and discussion, it can be concluded that there is a correlation between process and management skills, managerial creativity and productivity of science teachers in online learning for Madrasah Tsanawiyah teachers in Muaro Jambi Regency and Madrasah Tsanawiyah Palembang City, it can be seen that the value of sig. (2-tailed) for all correlations is 0.000. Based on the provisions, it is known that if the results of the analysis obtain a sig. (2-tailed) < 0.05 then there is a significant correlation. This shows that there is a significant positive correlation between process management skills and the work productivity of science teachers. In other words, it can be said that the better the teacher

management process skills, the better their productivity will be. In addition, this is also reinforced by the results of Rcount(0.917) > RTable value (0, .312) at the 95% confidence level.

Keywords: Management Process, Teacher Productivity, Madrasah Tsanawiyah, Science Teacher

#### Introduction

It is undeniable that professional management is one of the important factors to produce high-quality education. Management is an important component in education at all levels. Education experts and practitioners are increasing aware of the importance of management in the teaching and learning process. The success of education is not solely determined by the mastery of the teaching materials of the educators, the design of good teaching materials, and the pedagogic abilities of educators. The role of the principal or madrasa cannot be ignored. Gemnafle & Batlolona (2021), states that the entire process and learning outcomes achieved by students are highly dependent on the roles, duties, and responsibilities of madrasa principals and teachers in schools. Several studies also show that the management process greatly influenced the quality of education. This is following the research results of Nurhayati (2019), Ratna Sari Dewi (2018), and Alshatnawi & Ghani (2018), which show that there is a positive and significant influence between the management of learning infrastructure on the quality of education. In addition, Suhroh (2018), Joshi, (2018), and Damanik (2019) also found that there was an influence of madrasa-based management on the quality of madrasas.

A manager will be able to carry out good leadership if he has good management process skills as well. Defines states that management is essentially a process of planning, organizing, leading and controlling the efforts of organizational members and the utilization of all organizational resources to achieve the goals that have been set (Ervina et al., 2016) (Raudeliūnienė et al., 2018). In addition, management can also be said as an activity to achieve predetermined goals or targets by utilizing other people (Fitria & Husaini, 2019) and (Vyoralová, 2020). In one of his writings, Irsyadiyah (2020), states that management can be interpreted as the management, and use of resources effectively to achieve the desired goals.

In the context of education and learning, management is often associated with the term classroom management. Class management is defined as an effort made by the teacher as a class manager in managing students in the classroom. The efforts made by the teacher as a class manager are to design the learning process so that it can create and at the same time maintain a pleasant classroom atmosphere, motivating students to always be actively involved when the learning process takes place in the classroom environment. It is hoped that such a conducive atmosphere will be able to help support the success of previously planned teaching programs (Asmara & Nindianti, 2019) and (Reich et al., 2018). In addition, Hamidah(2019), stated that classroom management refers to activities that include and pay attention to optimal conditions for the teaching-learning process to occur. Therefore, it can be said that classroom management is the implementation of various didactic theories or learning theories in general (Cristea, 2015). Erwinsyah (2017) explains that classroom management in improving the effectiveness of the teaching and learning process includes: learning planning, directing, managing classrooms, communication; and control. Thus, the management process skills referred to in this study are the teacher's abilities in terms of learning planning, directing, managing classrooms, communication; and control. it can be said that classroom management is the implementation of various didactic theories or learning theories in general (Cristea, 2015). Erwinsyah (2017) explains that classroom management in improving the effectiveness of the teaching and learning process includes: learning planning, directing, managing classrooms, communication; and control. Thus, the management process skills referred to in this study are the teacher's abilities in terms of learning planning, directing, managing classrooms, communication; and control. it can be said that classroom management is the implementation of various didactic theories or learning theories in general (Cristea, 2015). Erwinsyah (2017) explains that classroom management in improving the effectiveness of the teaching and learning process includes: learning planning, directing, managing classrooms, communication; and control. Thus, the management process skills referred to in this study are the teacher's abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control. s abilities in terms of learning planning, directing, managing classrooms, communication; and control.

In the process of learning science, process management skills are also very necessary and even play an important role in the success of the learning process. This is as stated by Susanto (2018) that learning process management skills are one of the skills that must be possessed by teachers because these skills are part of the teacher's pedagogic competence. In one of their studies, Zainuddin (2019) and Wirastuti (2020) state that classroom management and learning management contribute to the effectiveness of the learning process. According to Kurni & Susanto (2018), classroom management skills are skills that must be possessed and mastered by educators in the learning process. Thus it is clear that classroom management skills are part of the teacher's pedagogic competence and become one of the requirements as professional teachers.

Empirically, the ability of teachers to manage the classroom has a positive impact on the quality of the learning process and student learning outcomes. This refers to the results of research by Kurni & Susanto (2018) which states that classroom management skills have a positive and significant effect on the variable quality of the learning process up to 87.9%. In addition, research by Suprapto (2017) and Lehene (2020), also found that the application of classroom management also has a positive effect on students' learning motivation (Melinda et al., 2018) and positive student learning behavior (Muhammad, 2020). Oci (2018) and Hidayah (2020), in their research also concluded that the better the classroom management, the higher student learning achievement. In higher education, good classroom management by lecturers also affects student learning motivation (Santoso et al., 2018). Thus, it can be understood that good classroom management will improve the quality of the process and student learning outcomes.

In addition to management process skills, a successful teacher also needs to be supported by managerial creativity abilities. According to Subur (2013) and Khasanah & Ichsan (2019), creativity means the ability to produce something new and original in the form of ideas and tools, and more specifically, the expertise to find something new. Fakhriyani (2016) states that Creativity is a person's ability which in everyday life is associated with special achievements in creating new things or something that already exists into new concepts, finding ways in solving problems that cannot be found by most people, creating ideas. Something new that has never existed, and see the various possibilities that will occur. In short, creativity plays a role in various processes of innovation and social revolution (Runco, 2016). In the context of education, creativity is a very important part, so it needs wider attention (Hodges, 2005), (Pllana, 2019) and (Kaplan, 2019). The managerial or management referred to in this study explains that classroom management is important in increasing the effectiveness of the teaching and learning process which includes: learning planning, directing, managing classrooms, communication, and control (Erwinsyah; 2017). Thus, managerial creativity is meant about the teacher's ability in terms of finding ways to solve problems in the management process, and creating new ideas in the classroom management process. Thus, classroom managerial creativity is part of pedagogical

creativity (Abramo & Reynolds, 2015). The managerial or management referred to in this study explains that classroom management is important in increasing the effectiveness of the teaching and learning process which includes: learning planning, directing, managing classrooms, communication, and control (Erwinsyah; 2017). Thus, managerial creativity is meant about the teacher's ability in terms of finding ways to solve problems in the management process, and creating new ideas in the classroom management process. Thus, classroom managerial creativity is part of pedagogical creativity (Abramo & Reynolds, 2015). The managerial or management referred to in this study explains that classroom management is important in increasing the effectiveness of the teaching and learning process which includes: learning planning, directing, managing classrooms, communication, and control (Erwinsyah; 2017). Thus, managerial creativity is meant about the teacher's ability in terms of finding ways to solve problems in the management process, and creating new ideas in the classroom management process. Thus, classroom managerial creativity is part of pedagogical creativity (Abramo & Reynolds, 2015). managerial creativity is meant about the teacher's ability in terms of finding ways to solve problems in the management process, and creating new ideas in the classroom management process. Thus, classroom managerial creativity is part of pedagogical creativity (Abramo & Reynolds, 2015). managerial creativity is meant about the teacher's ability in terms of finding ways to solve problems in the management process, and creating new ideas in the classroom management process. Thus, classroom managerial creativity is part of pedagogical creativity (Abramo & Reynolds, 2015).

In the field of education, the creativity of teachers in teaching has a positive impact on the process and also the learning outcomes of students. Tanjung (2020), Rami & Supardi (2019) and Pebrianto & Noor (2015) in their research stated that there was a strong influence between teacher creativity in teaching and students' interest in learning. Other research also states that there is a significant positive influence between teacher creativity in managing economic learning and students' learning motivation (Alwafi Ridho Subarkah, 2018), (Wibowo et al., 2018), (Ulfah et al., 2021). La Hadisi (2017) in his research also finds that there is a significant relationship between teacher teaching creativity and student absorption. In addition, research conducted by Rofiatun Nisa' et al. (2020), and Rahmawati & Suryadi (2019), also found that teacher creativity in teaching had a positive impact on student achievement. Thus it can be understood that the managerial creativity of teachers in learning contributes positively to the process and student learning outcomes in general.

One indicator of the success of the implementation of the education process is the high work productivity of teachers in carrying out their learning tasks. According to Wahyuni et al. (2019), teacher work productivity is the success of the teacher's work in carrying out learning activities to achieve the expected quality of learning outcomes. Triningsih & Mundilarno (2018) states that teacher work productivity is the work achieved by a teacher in a certain time unit. Meanwhile, Sutikno (2017) explains that teacher work productivity is the output of the teacher's tasks contained in the main tasks and functions of the teacher. Thus the work productivity of teachers can be measured through work indicators, which include the following: (1) make teaching completeness well and complete; (2) carry out learning activities; (3) carry out the activities of assessing the learning process, daily tests, general tests, and final exams; (4) carry out analysis of daily test results; (5) formulate and implement improvement and enrichment programs; (6) fill in the list of students' grades; (7) carry out guiding activities (knowledge sharing), to other teachers in the learning process; (8) making learning tools/props; (9) develop an attitude of appreciating works of art; (10) participate in curriculum development and outreach activities. Referring to the description, it can be said that teacher work productivity is a complete picture of the dedication of

a professional teacher. Empirically, teacher work productivity is very influential and plays a role in improving the quality of education in general. This is as the results of research by Silfana (2008),

The teaching and learning process must continue in any situation. When the Covid-19 pandemic began to plague Indonesia in early 2020, the learning system in educational institutions, including madrasas, took place online. In online learning, learning management is also very necessary as face-to-face learning. Unlike face-to-face learning, online learning has more complex features, a more varied choice of learning media, and a greater number of learning resources. This is in line with the results of research by Kiseleva & Pogosian (2021) and Rosali (2020) which state that learning during the Covid-19 pandemic can be done using online models with applications such as V-class, Unsil meet, zoom, WhatsApp, telegram, google classroom, youtube, Facebook and messenger. On the other hand, the implementation of online learning still has various obstacles. According to Aditia Rigianti (2020) some of the obstacles experienced by teachers during online learning are learning applications, internet networks and devices, learning management, assessment, and supervision. As for Prawanti & Sumarni (2020), Hutauruk & Sidabutar, (2020) mention the problems of online learning including lack of knowledge about information technology by students and parents of students, learning becomes boring, and learning assessments that should be done directly cannot be done. In fact (Tasdik & Amelia, 2021) mentions that in online learning several problems arise, including difficulty and boredom, less effectiveness, limitation of internet, unstable internet network. Thus, it is clear that the implementation of online learning still leaves various obstacles. For this reason, good classroom management skills and managerial creativity are needed to maintain teacher productivity and the quality of education in general.

Class management abilities and managerial creativity of a teacher are needed in online learning so that learning with this model can still run optimally. This is, apart from being still in the Covid-19 pandemic period, also to develop the educational model itself. The meaning of online learning can be viewed, this is in line with the opinion of Saifulloh & Darwis (2020) which states that learning management is very important in its position to increase the effectiveness of the teaching and learning process, especially during the emergency period of the spread of Corona Virus Disease 19 (COVID-19). Santani (2020) stated that the Covid-19 pandemic had an impact on the education system in Indonesia, namely changes that occurred in learning activities that were originally carried out face-to-face to virtual or online settings so that there were various obstacles experienced by students and educators. This research is focused on how the influence of management process skills and managerial creativity abilities of madrasa principals on teacher work productivity in online learning.

#### Method

This study uses a quantitative approach with a positivistic paradigm. The data was obtained by filling out several instruments by respondents. The respondents in this study were science teachers who carried out online learning (during the Covid-19 period). In this study, respondents came from schools at the Madrasah Tsanawiyah level in Muaro Jambi Regency, Jambi Province and Madrasah Tsanawiyah in Palembang City, South Sumatra. The determination of the sample is done randomly to select 10 schools. Thus, the total respondents in this study were 40 science teachers consisting of 4 teachers from each Madrasah. The sample selection of 40 people is considered to be able to represent all teachers in Madrasah Tsanawiyah in the two cities, those are Jambi and Palembang areas which run the online learning process. In this study, the instrument used was in the form of a questionnaire in the form of a statement with an alternative answer with a score. The scoring uses a Likert scale with the following conditions: a score of 4 if strongly agree, score 3 if agree, score 2 if disagree and score 1 if strongly disagree. The instruments used in the study consist of three types adapted to the research variables, namely: (1) instruments to measure management process skills, (2) instruments to measure managerial creativity, and (3) instruments to measure teacher work productivity in online learning . Each instrument consists of 30 statements, thus the maximum score for each instrument is 120 points and the minimum score is 30 points.

Based on the points obtained, data analysis is then carried out. In research, data analysis was carried out in two stages, namely: (1) the categorization stage and (2) the correlation stage. At the categorization stage, the respondents' abilities were categorized into three groups, namely: (a) high, (b) moderate, and (c) low. The correlation stage is carried out by conducting a correlation test, in this case, the product-moment correlation test.

## **Results and Discussion**

Based on measurements on each variable, namely management process skills, managerial creativity, and teacher work productivity measured through an instrument that has been validated, the data recapitulation is obtained as follows:

I	No	Score range Category Number of Percentage			
	INO	Score range	Category		Percentage (%)
				Respondents	
	1	91-120	High	15	37.5
	2	61-90	Medium	19	47.5
	3	30-60	Low	6	15
	Total			40	100

 Table 1. Management Process Skills for Science Teachers at Madrasah Tsanawiyah in Muaro

 Jambi Regency and Madrasah Tsanawiyah, Palembang City

Referring to Table 1 above, namely the management process skills of junior high school science teachers in Muaro Jambi Regency and Madrasah Tsanawiyah Palembang City, it can be understood that in general or most of them are in the "moderate" category, as many as 19 people or around 47.5%. Teachers with the ability category "high" amounted to 15 people or as much as 37.5%, while teachers with the ability category "low" as many as 6 people or about 15%. This shows that in general the pedagogical ability or competence of science teachers at Madrasah Tsanawiyah in Muaro Jambi Regency and Madrasah Tsanawiyah in Palembang City is relatively good. In other words, theoretically, science teachers at Madrasah Tsanawiyah. In Muaro Jambi Regency and Palembang City, they have "medium"

 Table 2. Managerial Creativity of Online Learning Science Teachers at Madrasah Tsanawiyah in

 Muaro Jambi Regency and Madrasah Tsanawiyah in Palembang City

No	Score range	Category	Number of	Percentage (%)
			Respondents	
1	91-120	High	11	27.5
2	61-90	Meduim	17	42.5
3	30-60	Low	12	30
Total			40	100

Based on the data in Table 2 above, namely the managerial creativity ability of online learning science teachers at Madrasah Tsanawiyah in Muaro Jambi Regency and Madrasah Tsanawiyah in Palembang City, it can be understood that in general, their abilities are in the "medium" category, which is 17 people or around 42.5%. Teachers with managerial creativity skills in the "low" category of online learning are 12 people or as much as 30%, while teachers with the ability in the "high" category are 11 people or around 27.5%. This shows that in general the managerial ability or creativity of Madrasah Tsanawiyah teachers in carrying out learning in Muaro Jambi Regency and Madrasah Tsanawiyah in Palembang City is relatively good. Because managerial creativity in online science learning is part of pedagogical competence,

No	Score range	Category	Number of	Percentage (%)
		0.2	Respondents	
1	91-120	High	12	30
2	61-90	Medium	17	42.5
3	30-60	Low	11	27.5
Total			40	100

Table 3. Productivity of Science Teachers in Online Learning for Madrasah Tsanawiyah Teachers in Muaro Jambi Regency and Madrasah Tsanawiyah, Palembang City

Referring to Table 3 above, namely the productivity of Madrasah Tsanawiyah science teachers in online learning in Muaro Jambi Regency and Madrasah Tsanawiyah Palembang city, it can be understood that in general or most of them are in the "moderate" category, which is 17 people or around 42.5%. Teachers with productivity in the "high" category are 12 people or as much as 30%, while teachers with productivity in the "low" category are 11 people or around 27.5%. This shows that in general the work productivity of science teachers at Madrasah Tsanawiyah in Muaro Jambi Regency and Madrasah Tsanawiyah Palembang in the context of online learning is relatively good. The relatively high number with the "low" category of 27.5%, can be understood. This is considering that the implementation of online learning, in general, has various obstacles and difficulties, as stated by Aditia Rigianti, (2020) that the obstacles experienced by teachers during online learning are learning applications, internet networks, and devices, learning management, assessment, and supervision. Even at the student level, the implementation of online learning still faces many obstacles (Nugroho et al., 2021).

Table 4. Correlation of Management Process Skills, Managerial Creativity to the Productivity of Science Teachers in Online Learning for Madrasah Tsanawiyah Teachers in Muaro Jambi

Regency and Madrasah Tsanawiyah Palembang City

Correlations

		Process Management Skill	Managerial Creativity	Productivity
Process Management Skill	Pearson Correlation	1	.914**	.917**
	Sig. (2-tailed)		.000	.000
	Ν	40	40	40
Managerial Creativity	Pearson Correlation	.914**	1	.947**
	Sig. (2-tailed)	.000		.000
	Ν	40	40	40
Productivity	Pearson Correlation	.917**	.947**	1
	Sig. (2-tailed)	.000	.000	
	Ν	40	40	40

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Based on Table 4 above, namely the correlation of management process skills, managerial creativity to teacher work productivity in online learning, it can be seen that the value of sig. (2-tailed) for all correlations is 0.000. Based on the provisions that if the results of the analysis obtain a value of sig. (2-tailed) < 0.05 then there is a significant correlation. This means that there is a significant positive correlation between management process skills and teacher work productivity, or in other words, it can be said that the better the teacher management process skills, the better the productivity. This is also reinforced by the results of R-count(0.917)> the value of RTable (0.312) at the 95% confidence level.

In addition, there is also a correlation between managerial creativity and teacher work productivity. It is based on the sign value. (2-tailed) that is 0.000 < 0.05. In addition, this is also reinforced by the results of R-count(0.947) > RTable value (0.312) at the 95% confidence level. Therefore, it can be said that the two variables, namely management process skills and managerial creativity, affect the work productivity of science teachers at Madrasah Tsanawiyah in Muaro Jambi Regency and Madrasah Tsanawiyah Palembang City.

Furthermore, to find out whether management process skills and managerial creativity together affect the work productivity of science teachers at Madrasah Tsanawiyah in Muaro Jambi district and Madrasah Tsanawiyah Palembang city, a simultaneous test or F test was carried out. Based on the F test that has been carried out, it can be seen in Table 5 below:

			ANOVAA			
		Sum of				
Model		Squares	df	Mean Square	F	Sig.
1	Regression	17024.794	2	8512,397	194.469	.000b
	Residual	1619,581	37	43,772		
	Total	18644.375	39			
7						

Table 5. Simultaneous Test Results (F Test)

a. Dependent Variable: Productivity

b. Predictors: (Constant), Managerial Creativity, Process Skill Management

Based on Table 5 above, namely the simultaneous correlation (double test) between management process skills and managerial creativity on teacher productivity in online learning for science teachers at Madrasah Tsanawiyah in Muaro Jambi Regency and Madrasah Tsanawiyah in Palembang City, it can be seen that the value of sig. (2-tailed) is 0.000 which means <0.05. Based on the provisions that if the value of sig. (2-tailed) < 0.05, then the hypothesis is accepted. Thus, it can be understood that management process skills and managerial creativity simultaneously affect teacher work productivity. In addition, based on the value of F-count, namely: 194.469 > F-table, (3.23). Therefore, it can be said that the two variables, namely management process skills and managerial creativity,

As mentioned above, there is a correlation between management process skills and managerial creativity on teacher productivity in online learning for science teachers at Madrasah Tsanawiyah in Muaro Jambi Regency and Madrasah Tsanawiyah in Palembang (Table 4) and is also supported by the results of the F test (Table 5), it means that it also proves that the two variables, namely management process skills, and managerial creativity, have a positive effect on the productivity of science teachers in online learning in Madrasah Tsanawiyah, Muaro Jambi Regency, and Madrasah Tsanawiyah , Palembang city. These results are in line with Sari's research (2016), which states that management ability affects employee productivity. In addition, the results of this study are also in line with research conducted by Kurni & Susanto (2018b),

Susanto & Rahayu (2018), stated that classroom management has a positive and significant effect on learning behavior variables. Oci (2018) also mentions that classroom management can increase student achievement by 60.1%. In addition, the results of Widiawati's research (2019), also state that there is a direct influence between classroom management on critical thinking skills of 0.603, there is a direct influence of learning motivation on critical thinking skills of 0.786 and there is a direct influence between classroom management and learning motivation of 0.536. This means that classroom management skills are a very important part of the learning process. Therefore, teachers both in face-to-face learning and in the context of online learning must be able to develop optimal classroom management skills as stated by Kiseleva & Pogosian (2021). This, in addition, to have a positive impact on the process and student learning outcomes, teacher creativity also has an impact on the professionalism of the teacher itself. This is understandable because classroom management skills are part of pedagogical competence (Abramo & Reynolds, 2015), so increasing teacher professionalism, it can also be done by increasing their pedagogical competence (Febriana, 2016).

There are several strategies to improve classroom management skills for teachers, including online learning management as an effort to increase teacher work productivity in the learning process. According to Zulaikha (2011), classroom management skills can be honed by always planning student organization, organizing learning materials, organizing learning facilities and infrastructure, establishing communication and making decisions as well as monitoring and evaluating. In addition, efforts to improve classroom management skills for teachers can also be carried out with academic supervision by the principal (Sardiyo, 2015). This means that principals should pay attention to the level of teacher class management process skills, so those madrasa principals can take the right steps. Rosa & Mujiarto (2020) and Andrevnaet al., (2020), and Bereczki & Kárpáti (2021), state that Teachers' managerial creativity can be improved through various learning technology innovations, the introduction of learning models and strategies, learning tools, and materials. Increasing learning managerial creativity for teachers is very important to increase teacher professionalism (Vaganova et al., 2019).

In addition, the results of the study also state that there is a positive and significant correlation between managerial creativity and teacher productivity in online learning. This means that the more creative teachers are in implementing online classroom management, the productivity of teachers will increase (Kurashige et al., 2019) and (Hill, 2020). Vice versa, the less creative teachers are in managing online learning, the less productive they will be. For this reason, teachers need to develop their creativity, especially in online learning so that their productivity is maintained.

According to Tarihoran & Cendana (2020), several strategies in online learning can be done by: (1) Adjusting strategies, methods, models, and time allocation with teaching materials in the lesson plans, (2) Providing supporting materials to students that are easily accessible; (3) Providing feedback to students who study asynchronously via Facebook, Email, Google Classroom, and so on; (4) Visiting students if schools and students cannot carry out online learning with permission from various parties (foundations, madrasas, parents, and the government). In addition, the managerial implementation strategy of online learning can also be carried out by 1) time management and the use of appropriate technology, and 2) the application of appropriate learning methods and maintaining communication with students (Zaitun et al., 2020).

Referring to the research results, namely that there is a positive correlation between classroom management process skills and science teacher productivity, it can also be said that science teacher work productivity will increase if the pedagogical competence (class management process skills) is good. Therefore, to encourage and create productive science teachers in the learning process, training and development of pedagogical competencies are very necessary. Several alternatives for developing pedagogical competencies (including classroom management process skills) for teachers, including through lesson study activities (Hartanto, 2019), and (Sudirman, 2020). In addition to lesson study, efforts to develop teacher pedagogical competencies can also be carried out with field practice activities that are monitored with supervision,

# Conclusion

Based on the data and discussion as described above, at the end of the study it can be concluded that there is a correlation between management process skills, and managerial creativity on teacher productivity in online learning for science teachers at Madrasah Tsanawiyah in Muaro Jambi Regency and Madrasah Tsanawiyah in Palembang City, it can be seen that sig value. (2-tailed) for all correlations is 0.000. Based on the provisions that if the results of the analysis obtain a value of sig. (2-tailed) < 0.05 then there is a significant correlation. This means that there is a significant positive correlation between process management skills and work productivity of science teachers, or in other words, it can be said that the better the management process skills of teachers, the better their productivity will be. in addition,

This study proves important assumptions from previous experts and researchers about the important role of the managerial ability of educational institution leaders in supporting educational success. The better the management quality of school/madrasah leaders, the more productive the teachers are in carrying out the teaching and learning process using the online system. Further understanding of the meaning of online learning for both teachers and students can be continued with qualitative methods by selecting several madrasas purposively that have certain uniqueness in online learning during the Covid-19 pandemic season.

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