

Data on the Implementation of Distance Learning during the COVID-19 Pandemic in Yogyakarta, Indonesia

Wuri Wuryandani, Firmansyah*, Amalia Rizki Ardiansyah, Irfan Wahyu Prananto, Kurniawati

Education Teacher of Elementary School, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

*Corresponding author: firmansyah@uny.ac.id

Received March 08, 2021; Revised April 15, 2021; Accepted April 25, 2021

Abstract This data contains information about the implementation of distance learning carried out by elementary school teachers in Yogyakarta during the COVID-19 pandemic. The data presented is used as a GAP analysis to implement distance learning with home learning guidelines issued by the Ministry of Education and Culture of the Republic of Indonesia during the COVID-19 pandemic. The survey instrument was developed based on three essential elements in learning: planning, implementing, and evaluating the teachers in elementary schools. Expert validation test using CVR produces 20 items that match. The survey involved 261 teacher respondents spread across the city of Yogyakarta. The crosstabulation method was carried out to determine the relationship between teachers' teaching experiences and readiness to carry out distance learning during the COVID-19 pandemic. Results crosstab analysis can be used to develop teachers' ability to plan, implement, and evaluate distance learning if similar conditions recur in the future. The existing data also illustrates the readiness of elementary school teachers in Yogyakarta in facing the Industrial Revolution 4.0 era, where all fields require IT skills, including in education.

Keywords: *implementation of distance learning, cross survey analysis data, COVID-19 pandemic, elementary school teachers*

Cite This Article: Wuri Wuryandani, Firmansyah, Amalia Rizki Ardiansyah, Irfan Wahyu Prananto, and Kurniawati, "Data on the Implementation of Distance Learning during the COVID-19 Pandemic in Yogyakarta, Indonesia." *American Journal of Educational Research*, vol. 9, no. 4 (2021): 203-211. doi: 10.12691/education-9-4-8.

1. Introduction

The development and advancement of technological innovations have an impact on all aspects of people's lives. People's behaviour and lifestyles also undergo rapid transformation because there are no boundaries between physical and virtual spaces. This began with the emergence of the industrial era 4.0, which features digitization, information transparency, connectivity, and automation [1]. The big changes in the Industrial 4.0 era are understood as a breakthrough in a combination of physical and digital technologies, such as artificial intelligence (AI), cloud computing, big data, adaptive robots, augmented reality, additive manufacturing, and the Internet of things (IoT) [2]. The technological revolution has changed the way people work or activities. Wolter identifies the following industry 4.0 challenges; 1) unsafe information technology; 2) reliability and stability of production machines; 3) lack of skills; 4) reluctance to change; and 5) the loss of a lot of work because of being replaced by automatic machines [3].

Facing the challenges of the industrial revolution 4.0, which is considered to degrade the role of humans, Japan gave birth to a concept of society 5.0 [4]. Society 5.0 has the goal of creating a supersmart society. The

term supersmart means a human-centred society that can balance economic development by solving social problems through a system capable of integrating physical and virtual spaces [4]. The future world of Society 5.0 must be designed so that society is endowed with vitality, comfort, and high-quality life, without being controlled or manipulated by AI or robots. It is hoped that people from all walks of life will have their needs met, receive quality serviceable to live a comfortable and vibrant life [5].

Society 5.0 focuses on humanism by prioritizing scientific and technological innovations, which have the main objective of development in the economic sector [6]. Society 5.0 is human-centred and technology-based [7]. Society 5.0 has the following characteristics: (1) full use of information and communication technology; (2) centred on the community; (3) community participation; (4) have the same values: sustainability, inclusion, effectiveness, and intelligence power; and (5) the development of economic disruption [8].

The era of Society 5.0 also brings changes in the field of education. Enormous technological breakthroughs influence today's learning. Students in the era and Society 5.0 are technology literate and have access to technology to easily obtain information [1]. Education in the technology era emphasizes access to enable people to pursue their desires and goals and provides a social learning space to easily choose and provide space for

individuals to become who they want to be [9]. In this context, students must be accustomed to thinking critically, constructively, creatively and innovatively so that the knowledge obtained can be applied in their lives and used as provisions in solving problems to adapt in the era of Society 5.0 [10]. To adapt to the era of Society 5.0, educators need to transform digital learning.

Currently, in various parts of the world, there has been an outbreak of the COVID-19 Pandemic. The existence of a pandemic has made many countries implement distance learning policies, including Indonesia. Distance learning during the pandemic was carried out from pre-school, elementary, junior high, high school to tertiary levels. Distance learning is a set of teaching methods where teaching activities are carried out separately from learning activities. The separation of the two activities can be in the form of location or condition, geographically and technologically separated (Rogers et al., 2009; Uno, 2009). Distance learning is based on the learners' learning freedom theory, with little face-to-face interaction with the teacher (Lassoued, Alhendawi, & Bashitialshaer, 2020). Distance learning can occur through various modes of communication, including synchronous, asynchronous, or a combination of both (Perkowski, 2013). Synchronous communication occurs at the same time and generally at the same place or real time, whereas asynchronous does not occur at the same time or at the same place and generally occurs in a virtual environment via discussion platforms or e-mail. Literally, distance learning means that the learning process is carried out at a distance, separating teachers and learners, without being bound by distance, space and time.

Distance learning requires teachers to have an adequate level of information and communication technology skills; able to design quality and effective learning; understand learning media that can accommodate student literacy and support the concept of fun learning so that students feel comfortable learning independently, and maintain student interest in learning during a pandemic (Anwaringsih & Ernawati, 2013; Burdina, Krapotkina, & Nasyrova, 2019; Daniel, 2020). As the spearhead of the implementation of distance learning, teachers must have the ability to condition all instructional components, methods, media to be used in learning, use of instructional time related to application use, and psychological and social factors (Aliyyah et al., 2020).

The distance learning policy that was implemented suddenly made many schools less ready, especially in terms of minimal facilities and infrastructure (Aliyyah et al., 2020). In addition, the lack of knowledge of the skills of teachers in designing effective distance learning, unstable internet access, the unavailability of adequate learning devices from the parents' point of view such as cellphones, laptops, or tablets are also obstacles in implementing distance learning (Alea, Fabrea, Roldan, & Farooqi, 2020). Distance learning demands the involvement of the use of technology, so that students from low economic backgrounds feel the most impact of this situation (Drane, Vernon, & O'Shea, 2020). Obstacles in implementing distance learning can also be seen from the psychological side of students. Students feel forced to study distance without adequate facilities and infrastructure at home; there is no culture of distance

learning among students, students are used to being in school to interact with friends and teachers; schools are closed for too long, making students bored, crying easily and losing their enthusiasm for learning (Purwanto et al., 2020).

Even though the distance learning policy raises many obstacles in the field, this moment is actually a challenge for teachers to adapt to the era of Society 5.0. The application of distance learning triggers teachers to increase competence in technology. Technology-based distance learning must be developed to provide quality education that can be accessed by anyone, anytime and anywhere (Sudibjo et al., 2019). A person starts thinking about the first steps that must be taken in facing the challenges that are in front of his eyes, thinking about how students are able to adapt to the era of society 5.0, and equipping students in critical and creative thinking (Nurjani, 2020).

The purpose of this study was to reveal patterns of distance learning in primary schools during the Covid-19 pandemic with the subject of taking data from teachers, school principals and parents / guardians of students. The research results are expected to provide an overview of the readiness of teachers in Indonesia in implementing distance learning by analyzing the gap between distance learning policies and those in the field. Thus, the results of the research can be used as a reference for determining strategic steps in preparing teachers for disaster emergencies as well as achieving educational targets in the Society 5.0 era.

2. Value of the Data

- No research discusses the distance learning process during the COVID-19 pandemic in certain areas based on the guidelines for implementing learning from home issued by the Ministry of Education and Culture in Indonesia. Researchers have developed an instrument to analyze learning in a particular area for elementary school teachers as long as distance learning is applied.
- The data presented can illustrate distance learning as a form of evaluation of the local city government to improve teachers' soft skills when faced with similar conditions.
- The data presented can illustrate the implementation of distance learning as a form of evaluation of the local city government to improve teachers' soft skills in the face of the Industrial Revolution 4.0, full of challenges in technological development.
- The instrument developed can be used in similar studies because it has been through experts' validation tests.

3. Data Description

Data were obtained from 20 survey items used to collect information about the application of distance learning for elementary school teachers in Yogyakarta during the COVID-19 pandemic. The survey instrument is provided as supplementary files (link <http://bit.ly/surveyInstrument>).

The data in this article are presented in tables. [Table 1](#) shows the respondents' experiences in teaching at elementary schools. [Table 2](#) to [Table 21](#) show the results of a cross-analysis analysis of planning, implementation,

and evaluation of learning during the COVID-19 pandemic with the respondents' teaching experiences. While [Table 22](#) shows the results of the analysis of CVR items which ten experts validated before the instrument was used [11].

Table 1. Teaching Experience

No	Years	Frequency	Percent	Valid Percent	Cumulative Percent
1	11 - 20 years	83	31.8	31.8	31.8
2	5 - 10 years	70	26.8	26.8	58.6
3	Less than five years	108	41.4	41.4	100.0
	Total	261	100.0	100.0	

Table 2. Socialization provided by the teacher to the student's parent about the implementation of distance learning.

No	Teaching Experience		Survey answers			Total
			Maybe	No	Yes	
1	11 - 20 years	Frequency	0	2	81	83
		% of the total	0%	0.8%	31.0%	31.8%
2	5 - 10 years	Frequency	2	0	68	70
		% of the total	0.8%	0%	26.1%	26.8%
3	Less than five years	Frequency	4	2	102	108
		% of the total	1.1%	0.8%	26.8%	41.4%
	Total	Frequency	6	4	247	261
		% of the total	2.7%	2.7%	94.6%	100%

Table 3. The teacher's socialization media is used to inform the student's parent about distance learning implementation

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	23	12	48	83
		% of the total	8.8%	4.6%	18.4%	31.8%
2	5 - 10 years	Frequency	38	11	21	70
		% of the total	14.6%	4.2%	8.0%	26.8%
3	Less than five years	Frequency	39	26	43	108
		% of the total	14.9%	10.0%	16.5%	41.4%
	Total	Frequency	100	49	112	261
		% of the total	38.3%	18.8%	42.9%	100%

Notes*)

1. Circular issued by the school for the parents of students
2. Direct meetings with parents of students at school with due observance of the COVID-19 health protocol
3. Via messages like WhatsApp and e-mail.

Table 4. Teacher lesson plan

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	14	25	44	83
		% of the total	5.4%	9.6%	16.9%	31.8%
2	5 - 10 years	Frequency	4	32	34	70
		% of the total	1.5%	12.3%	13.0%	26.8%
3	Less than five years	Frequency	16	48	44	108
		% of the total	6.1%	18.4%	16.9%	41.4%
	Total	Frequency	34	105	122	261
		% of the total	13.0%	40.2%	46.7%	100%

Notes*)

1. Download the lesson plan that the government has provided through the <http://gurubergi.kemendikbud.go.id> web page
2. Following student books adapted to pandemic conditions
3. Revising the lesson plans that the teacher previously made face-to-face into distance learning.

Table 5. Learning media used by the teacher

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	43	5	35	83
		% of the total	16.5%	1.9%	13.4%	31.8%
2	5 - 10 years	Frequency	22	9	39	70
		% of the total	8.4%	3.4%	14.9%	26.8%
3	Less than five years	Frequency	50	4	54	108
		% of the total	19.2%	1.5%	20.7%	41.4%
	Total	Frequency	115	18	128	261
		% of the total	44.1%	6.9%	49.0%	100%

Notes*)

1. Asynchronous media such as; Google Classroom, WhatsApp group, Learning System Management
2. Synchronous media such as; Google Meet, Zoom, and Cisco
3. Mixed between synchronous and asynchronous.

Table 6. Resources and teaching materials provided during the distance learning process

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	17	15	51	83
		% of the total	6.5%	5.7%	19.5%	31.8%
2	5 - 10 years	Frequency	21	13	36	70
		% of the total	8.0%	5.0%	13.8%	26.8%
3	Less than five years	Frequency	51	8	49	108
		% of the total	19.5%	3.1%	18.8%	41.4%
	Total	Frequency	89	36	136	261
		% of the total	34.1%	13.8%	52.1%	100%

Notes*)

1. Develop by self for a learning period of 1 week
2. Download via sites on the internet
3. Using textbooks owned by students.

Table 7. An assignment plan to be given to students during distance learning

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	53	3	27	83
		% of the total	20.3%	1.1%	10.3%	31.8%
2	5 - 10 years	Frequency	54	2	14	70
		% of the total	20.7%	0.8%	5.4%	26.8%
3	Less than five years	Frequency	81	2	25	108
		% of the total	31.0%	0.8%	9.6%	41.4%
	Total	Frequency	188	7	66	261
		% of the total	72.0%	2.7%	25.3%	100%

Notes*)

1. Develop by self according to the material that the teacher will be given each week
2. Download via sites on the internet
3. Using the questions in the student book.

Table 8. The method used in implementing distance learning

No	Teaching Experience		Survey answers					Total
			1*	2*	3*	4*	5*	
1	11 - 20 years	Frequency	14	8	9	3	0	83
		% of the total	5.4%	3.1%	3.4%	1.1%	0.0%	31.8%
2	5 - 10 years	Frequency	4	13	14	11	1	70
		% of the total	1.5%	5.0%	5.4%	4.2%	0.4%	26.8%
3	Less than five years	Frequency	17	8	7	10	0	108
		% of the total	6.5%	3.1%	2.7%	3.8%	0.0%	41.4%
	Total	Frequency	35	29	30	24	1	261
		% of the total	13.4%	11.1%	11.5%	9.2%	0.4%	100%

Notes*)

1. Discussions, Q&A
2. Mixed method
3. Problem Based Learning
4. Project-Based Learning
5. Student assignment.

Table 9. Distance learning assessment plans during the COVID-19 pandemic

No	Teaching Experience		Survey answers				Total
			1*	2*	3*	4*	
1	11 - 20 years	Frequency	8	1	6	68	83
		% of the total	3.1%	0.4%	2.3%	26.1%	31.8%
2	5 - 10 years	Frequency	8	0	8	54	70
		% of the total	3.1%	0.0%	3.1%	20.7%	26.8%
3	Less than five years	Frequency	6	3	13	86	108
		% of the total	2.3%	1.1%	5.0%	33.0%	41.4%
	Total	Frequency	22	4	27	208	261
		% of the total	8.4%	1.5%	10.3	79.7%	100%

Notes*)

1. Developing cognitive and affective domains only
2. Developing only affective and psychomotor domains
3. Developing the cognitive realm only because the interactions that are carried out are limited
4. Developing three-domain assessments, cognitive, affective, and psychomotor.

Table 10. Competencies achieved by students during the distance learning process

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	6	56	21	83
		% of the total	2.3%	21.5%	8.0%	31.8%
2	5 - 10 years	Frequency	2	66	2	70
		% of the total	0.8%	25.3%	0.8%	26.8%
3	Less than five years	Frequency	0	91	17	108
		% of the total	0.0%	34.9%	6.5%	41.4%
	Total	Frequency	8	213	40	261
		% of the total	3.1%	81.6%	15.3%	100%

Notes*)

1. Literacy, and numeracy
2. Literacy, numeracy, prevention and handling of COVID-19, healthy lifestyle, recreational and physical activities, religious spirituality, strengthening of character and culture
3. Literacy, numeracy, strengthening of character and culture, and religious spirituality.

Table 11. Initiating the implementation of distance learning during the COVID-19 pandemic

No	Teaching Experience		Survey answers				Total
			1*	2*	3*	4*	
1	11 - 20 years	Frequency	8	18	37	20	83
		% of the total	3.1%	6.9%	14.2%	7.7%	31.8%
2	5 - 10 years	Frequency	2	9	26	33	70
		% of the total	0.8%	3.4%	10.0%	12.6%	26.8%
3	Less than five years	Frequency	6	32	17	53	108
		% of the total	2.3%	12.3%	6.5%	20.3%	41.4%
	Total	Frequency	16	59	80	106	261
		% of the total	6.1%	22.6%	30.7%	40.6%	100%

Notes*)

1. Ask parents to take worksheets that must be completed in one week
2. Conduct face-to-face meetings with parents at school by paying attention to the COVID-19 health protocol to discuss plans for one semester
3. Conduct online meetings at the beginning of the semester with parents of students to discuss plans for implementing learning
4. Inform students' parents about the implementation of learning that will be carried out each week via WhatsApp Group.

Table 12. Achievement of targeted learning basic competencies

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	20	4	59	83
		% of the total	7.7%	1.5%	22.6%	31.8%
2	5 - 10 years	Frequency	13	10	47	70
		% of the total	5.0%	3.8%	18.0%	26.8%
3	Less than five years	Frequency	32	1	75	108
		% of the total	12.3%	0.4%	28.7%	41.4%
	Total	Frequency	65	15	181	261
		% of the total	24.9%	5.7%	69.3%	100%

Notes*)

1. Following basic competencies and indicators that schools had prepared before the COVID-19 pandemic
2. Following the wishes of the teacher who feels appropriate to do during distance learning is carried out
3. Providing meaningful learning experiences for students without being burdened with demands to complete all curriculum achievements.

Table 13. Monitor student readiness for distance learning

No	Teaching Experience		Survey answers				Total
			1*	2*	3*	4*	
1	11 - 20 years	Frequency	17	22	41	3	83
		% of the total	6.5%	8.4%	15.7%	1.1%	31.8%
2	5 - 10 years	Frequency	20	17	33	0	70
		% of the total	7.7%	6.5%	12.6%	0.0%	26.8%
3	Less than five years	Frequency	16	46	40	6	108
		% of the total	6.1%	17.6%	15.3%	2.3%	41.4%
	Total	Frequency	53	85	114	9	261
		% of the total	20.3%	32.6%	43.7%	3.4%	100%

Notes*)

1. Ensure that all students have received assignments and learning materials properly in any way the teacher can do
2. Entrusting students to parents to accompany the implementation of learning every day according to schedule
3. Ready or not, the teacher has fulfilled his responsibility
4. Visiting students in groups from house to house with the COVID-19 health protocol.

Table 14. The learning assessment process during the implementation of distance learning

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	53	0	30	83
		% of the total	20.3%	0.0%	11.5%	31.8%
2	5 - 10 years	Frequency	57	0	13	70
		% of the total	21.8%	0.0%	5.0%	26.8%
3	Less than five years	Frequency	77	2	29	108
		% of the total	29.5%	0.8%	11.1%	41.4%
	Total	Frequency	187	2	72	261
		% of the total	71.6%	0.8%	27.6%	100%

Notes*)

1. Doing questions and answers, giving weekly assignments, doing online tests, and assessing the attitudes of students during the implementation of learning
2. Oriented to the results of the tests given at the end of the semester
3. Oriented to the tasks given by the teacher to students.

Table 15. Reporting of student learning outcomes to parents of students.

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	48	8	27	83
		% of the total	18.4%	3.1%	10.3%	31.8%
2	5 - 10 years	Frequency	38	12	20	70
		% of the total	14.6%	4.6%	7.7%	26.8%
3	Less than five years	Frequency	71	19	18	108
		% of the total	27.2%	7.3%	6.9%	41.4%
	Total	Frequency	157	39	65	261
		% of the total	60.2%	14.9%	24.9%	100%

Notes*)

1. Provide reports on student learning outcomes at the end of the lesson with some suggestions and input notes
2. Provide reports on the learning progress of students every month to the parents of students
3. Provide reports on the study of students in the form of the number of learning outcomes.

Table 16. Training activities to increase self-ability to manage distance learning.

No	Teaching Experience		Survey answers				Total
			1*	2*	3*	4*	
1	11 - 20 years	Frequency	23	40	14	6	83
		% of the total	8.8%	15.3%	5.4%	2.3%	31.8%
2	5 - 10 years	Frequency	38	15	9	8	70
		% of the total	14.6%	5.7%	3.4%	3.1%	26.8%
3	Less than five years	Frequency	38	42	20	8	108
		% of the total	14.6%	16.1%	7.7%	3.1%	41.4%
	Total	Frequency	99	97	43	22	261
		% of the total	37.9%	37.2%	16.5%	8.4%	100%

Notes*)

1. 3-5 times
2. Less than three times
3. More than five times
4. Never get the training.

Table 17. The form of training is obtained to improve the self-ability to manage distance learning.

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	15	66	2	83
		% of the total	5.7%	25.3%	0.8%	31.8%
2	5 - 10 years	Frequency	31	35	4	70
		% of the total	11.9%	13.4%	1.5%	26.8%
3	Less than five years	Frequency	28	74	6	108
		% of the total	10.7%	28.4%	2.3%	41.4%
Total		Frequency	74	175	12	261
		% of the total	28.4%	67.0%	4.6%	100%

Notes*)

1. Distance learning methods, media, and resources
2. Planning, methods, media and learning resources, and distance learning assessment
3. Never get the training.

Table 18. Facilities for providing criticism and suggestions from students' parents during distance learning

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	28	23	32	83
		% of the total	10.7%	8.8%	12.3%	31.8%
2	5 - 10 years	Frequency	31	14	25	70
		% of the total	11.9%	5.4%	9.6%	26.8%
3	Less than five years	Frequency	41	33	34	108
		% of the total	15.7%	12.6%	13.0%	41.4%
Total		Frequency	100	70	91	261
		% of the total	38.3%	26.8%	34.9%	100%

Notes*)

1. Conduct open discussions with parents directly once a month
2. Create a Q&A forum that parents of students can fill
3. There is no complaint service made by the teacher.

Table 19. Evaluation of distance learning by the principal for one semester

No	Teaching Experience		Survey answers			Total
			1*	2*	3*	
1	11 - 20 years	Frequency	48	7	28	83
		% of the total	18.4%	2.7%	10.7%	31.8%
2	5 - 10 years	Frequency	32	11	27	70
		% of the total	12.3%	4.2%	10.3%	26.8%
3	Less than five years	Frequency	48	34	26	108
		% of the total	18.4%	13.0%	10.0%	41.4%
Total		Frequency	128	52	81	261
		% of the total	49.0%	19.9%	31.0%	100%

Notes*)

1. Once a month in one semester
2. Once a week in one semester
3. Once per semester.

Table 20. Types of disabilities that exist in schools

No	Teaching Experience		Survey answers											Total
			1	2	3	4	5	6	7	8	9	10	11	
1	11 - 20 years	F	13	0	2	0	3	10	0	0	2	3	50	83
		%	5.0%	0.0%	0.8	0.0%	1.1%	3.8%	0.0%	0.0%	0.8%	1.1%	19.2%	31.8%
2	5 - 10 years	F	7	1	1	0	0	0	0	0	0	0	61	70
		%	2.7%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	23.4%	26.8%
3	Less than five years	F	5	3	2	0	2	0	2	2	0	2	89	108
		%	1.9%	1.1%	0.8%	0.0%	0.8%	0.0%	0.8%	0.8%	0.0%	0.8%	34.1%	41.4%
Total		F	25	4	5	0	5	10	2	2	5	200	261	
		%	9.6%	1.5%	1.9%	0.0%	1.9%	3.8%	0.8%	0.8%	1.9%	76.6%	100%	

Notes*)

1. Intellectual disabilities
2. Mental disabilities
3. Physical disabilities
4. Sensory disabilities
5. Intellectual and sensory disabilities
6. Mental and intellectual disabilities
7. Physical and intellectual disabilities
8. Mental, intellectual, and sensory disabilities
9. Physical, mental, and intellectual disabilities
10. Physical, mental, and sensory disabilities
11. There are no students with disabilities

Table 21. The teacher's treatment of children who are classified as disabilities in carrying out distance learning

No	Teaching Experience		Survey answers				Total
			1*	2*	3*	4*	
1	11 - 20 years	Frequency	10	8	15	50	83
		% of the total	3.8%	3.1%	5.7%	19.2%	31.8%
2	5 - 10 years	Frequency	7	0	0	63	70
		% of total	2.7%	0.0%	0.0%	24.1%	26.8%
3	Less than five years	Frequency	13	5	1	89	108
		% of the total	5.0%	1.9%	0.4%	34.1%	41.4%
	Total	Frequency	30	13	16	202	261
		% of the total	11.5%	5.0%	6.1%	77.4%	100%

Notes*)

1. Developing learning tools that support the type of disability
2. Equalizing tasks at home such as students normally and surrender completely to the parents
3. Provide inclusive teachers accompanying students to homes in need.
4. There are no students with disabilities. Provide inclusive teachers accompanying students to homes in need.

Table 22. Instrument validity using expert judgment

No.	Question	CVR	CVR table	Description
1	Is there any form of socialization provided by the teacher to students' parents before carrying out distance learning activities?	1.00	0.65	Suitable
2	What socialization media did the teacher use in informing parents of students about the implementation of distance learning during the COVID-19 pandemic?	1.00	0.65	Suitable
3	How does the teacher plan for distance learning during the COVID-19 pandemic?	1.00	0.65	Suitable
4	What media did the teacher use for distance learning planning during the COVID-19 pandemic?	1.00	0.65	Suitable
5	How does the teacher use the teaching resources and materials provided during the distance learning process?	1.00	0.65	Suitable
6	How does the teacher plan the tasks that will be given to students during distance learning?	0.9	0.65	Suitable
7	What methods did you use in carrying out distance learning during the COVID-19 pandemic?	1.00	0.65	Suitable
8	How did you plan a distance learning assessment during the COVID-19 pandemic?	1.00	0.65	Suitable
9	What competencies did students achieve during the distance learning process?	0.8	0.65	Suitable
10	How did you initiate the implementation of distance learning during the COVID-19 pandemic?	1.00	0.65	Suitable
11	How are the fundamental learning competencies targeted by the teachers in implementing learning during the COVID-19 pandemic?	1.00	0.65	Suitable
12	How do you monitor the readiness of students to take part in distance learning during the COVID-19 pandemic?	0.7	0.65	Suitable
13	How does the teacher do the learning assessment process during the implementation of distance learning?	1.00	0.65	Suitable
14	How does the teacher report the learning outcomes of students to the parents of students?	1.00	0.65	Suitable
15	During the COVID-19 pandemic, how many times did the teacher participate in training activities to improve the ability to manage distance learning?	0.8	0.65	Suitable
16	During the COVID-19 pandemic, what forms of training did teacher receive to improve teacher ability to manage distance learning?	1.00	0.65	Suitable
17	How does the teacher listen to suggestions and input given by students' parents in implementing distance learning?	1.00	0.65	Suitable
18	How many times does the principal conduct a distance learning evaluation in one semester?	1.00	0.65	Suitable
19	If there are students with special needs in school, what type of disability do these students experience? (You can choose more than one according to the data available in your school)	1.00	0.65	Suitable
20	How does the teacher treat children with disabilities in carrying out distance learning?	1.00	0.65	Suitable

4. Experimental Design, Material, and Methods

This type of research used in this research is survey research. Cross-Sectional Survey is used to find out temporary problems by collecting data only once. Survey research is used to solve actual large-scale problems with large populations, and large sample size is required [12]. The survey instrument was distributed through the Google Form application and generated valid data from 261 elementary school teacher respondents in Yogyakarta City through a data coding and editing process [13]. This data contains a crosstab analysis using SPSS between teacher teaching experiences and distance learning implementation

during the COVID-19 pandemic. Data analysis results can be used to develop the teacher's ability to carry out, implement, and evaluate learning if a similar condition occurs again later. The existing data also illustrates the readiness of elementary school teachers in Yogyakarta in facing the Industrial Revolution 4.0 era, where all fields require skills in using IT, including in education.

In order to fulfil the rights of students to get educational services during the emergency spread of the Corona Virus Disease (COVID-19), the learning process is carried out through the implementation of Learning from Home (BDR) as follows listed in the Ministry of Education and Culture Circular Letter Number 4 of 2020 concerning Implementation of Education Policies in the Emergency of the Spread of Corona Virus Disease (COVID-19) which

was strengthened by SE Secretary-General Number 15 of 2020 concerning learning from home guidelines during the Covid 19 emergency [14].

5. Conclusion

This data provides an overview of the implementation of distance learning carried out by elementary school teachers in the Yogyakarta region of Indonesia. The results show that most of the teachers in Yogyakarta have implemented distance learning in accordance with the guidelines for implementing learning from home issued by the Indonesian Ministry of Education and Culture. Furthermore, a more in-depth research is needed on the implementation of distance learning in all regions in Indonesia using research instruments that have been developed (see Table 22). If the research is carried out thoroughly, it will get a picture of the readiness of Indonesian education, in this case, the level of primary school education in facing the era of society 5.0 in the future. Where the use of technology and information will also be widely applied in the learning process. What should be the attention of the government in Indonesia is the provision of distance learning services for children with special needs. Because there are still many inclusive schools that follow the same learning pattern as other normal children during the COVID-19 pandemic.

Ethics Statement

This manuscript has not been published elsewhere, or it is not under consideration for publication for other journals. The study was conducted by following Universitas Negeri Yogyakarta's ethical standards. Informed consent was obtained from the participants before the survey.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships which have, or could be perceived to have, influenced the work reported in these articles.

Credit Author Statement

Firmansyah: Conceptualization, Methodology, Data Curation, Software, Writing, Formal analysis **Wuri Wuryandani:** Conceptualization, Validation, and Supervision **Kurniawati:** Formal analysis, Validation

Amalia Rizki Ardiansyah: Writing - Review & Editing
Irfan Wahyu Prananto: Resources and Visualization.

Acknowledgements

We want to thank all survey participants for their time and willingness to complete the questionnaire. We also thank the experts who were willing to validate the survey instruments used in obtaining research data.

Supplementary Materials

Supplementary material associated with this article can be found in the online version at <http://dx.doi.org/10.17632/tkmlxw33y5c.1>.

References

- [1] N. Sudibjo, L. Idawati, H.G.R. Harsanti, Characteristics of Learning in the Era of Industry 4.0 and Society 5.0, Int. Conf. Educ. Technol. (ICoET 2019) Charact. 372 (2019).
- [2] G. Karacay, Talent Development for Industry 4.0: Industry 4.0: Managing The Digital Transformation. Springer Series in Advanced Manufacturing, in: Springer, Cham, 2018: pp. 123-136.
- [3] T.K. Sung, Industry 4.0: A Korea perspective, Technol. Forecast. Soc. Change. 132 (2018).
- [4] M. Fukuyama, Society 5.0: Aiming for a New Human-centered Society, Japan SPOTLIGHT. 27 (2018).
- [5] C. Miwa, Early Childhood Care and Education Practices in Japan for the Era of Society 5.0, in: 2020.
- [6] B. Aquilani, M. Piccarozzi, T. Abbate, A. Codini, The role of open innovation and value co-creation in the challenging transition from industry 4.0 to society 5.0: Toward a theoretical framework, Sustain. 12 (2020).
- [7] D.R.A. Wibawa, Ramadhan Prasetya., Peran Pendidikan Berbasis Higher Order Thinking Skills (Hots) Pada Tingkat Sekolah Menengah Pertama Di Era Society 5.0 Sebagai Penentu Kemajuan Bangsa Indonesia, Equilib. J. Ilm. Ekon. Dan Pembelajarannya. 7 (2019).
- [8] B. Salgues, Society 5.0 and the Management of the Future, in: Soc. 5.0, ISTE Ltd, 2018: pp. 91-119.
- [9] A. Collins, R. Halverson, The second educational revolution: Rethinking education in the age of technology, J. Comput. Assist. Learn. 26 (2010) 18-27.
- [10] Emawati, Innovations of Indonesian Language and Literature Learning in The Era of Society 5.0., J. Pendidik. Indones. 3 (2020) 9-18.
- [11] F.R. Wilson, W. Pan, D.A. Schumsky, Recalculation of the critical values for Lawshe's content validity ratio, Meas. Eval. Couns. Dev. 45 (2012) 197-210.
- [12] T. Widodo, Metode Penelitian Kuantitatif, UNS Press, Solo, 2008.
- [13] R.M. Groves, F.J. Fowler Jr, M.P. Couper, J.M. Lepkowski, E. Singer, R. Tourangeau, Survey methodology, John Wiley & Sons, 2011.
- [14] Kemendikbud, Surat Edaran Sekretaris Jenderal No.15 Tahun 2020 Pedoman Pelaksanaan Belajar Dari Rumah Selama Darurat Bencana COVID-19 di Indonesia, Sekr. Nas. SPAB (Satuan Pendidik. Aman Bencana). (2020) 1-16.

