



Article

Students' Perception of Elementary School Teachers' Competency: Indonesian Education Sustainability

Agustinus Tanggu Daga 1,*, Dinn Wahyudin 2 and Rudi Susilana 2

- Faculty of Teacher Training and Education, Universitas Katolik Weetebula, Jl. Mananga Aba, Karuni 87254, East Nusa Tenggara, Indonesia
- Department of Curriculum & Educational Technology, Universitas Pendidikan Indonesia, Jl. Dr. Setiabudi No. 229, Bandung 40154, West Java, Indonesia
- * Correspondence: agusdaga06@gmail.com

Abstract: The 2013 curriculum in Indonesia demands teacher competence. The professional development of teachers will support the achievement of the 2013 curriculum objectives. The purpose of this study is to describe and compare the competencies of primary school teachers by region, school accreditation, and school status. For this study, we used a comparative quantitative approach. We distributed a questionnaire to 1281 randomly selected elementary school students. The data analysis included a statistical description analysis, normality and homogeneity tests, and hypothesis testing. The findings revealed that (1) the average value of teacher competency in urban-area teachers was higher than that of rural-area teachers, (2) the average competency score of teachers in C-accredited schools was higher than that of teachers in unaccredited and B-accredited schools, and (3) the average score of teachers in private schools was higher than that of teachers in public schools. Thus, the results of this study show that differences exist in the competence of school teachers by region, school accreditation, and school status. Based on these findings, we suggest that all primary school teachers must continuously increase their competence to more effectively help students enhance their skills.

Keywords: teacher competence; region; accreditation; school status



Citation: Daga, A.T.; Wahyudin, D.; Susilana, R. Students' Perception of Elementary School Teachers' Competency: Indonesian Education Sustainability. Sustainability 2023, 15, 919. https://doi.org/10.3390/su 15020919

Academic Editor: Stamatios Papadakis

Received: 12 December 2022 Revised: 31 December 2022 Accepted: 1 January 2023 Published: 4 January 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

Teachers are important education figures in elementary schools as they design the curriculum, conduct teaching and learning activities, and assess student learning outcomes. Although the development of information technology has allowed students to independently learn, the teacher still directs the educational process so that students achieve the necessary competencies or skills needed today. The teaching profession has developed and become an area of expertise to support and develop the potential of students to achieve maximum results [1,2]. In the era of digital technology development, which is characterized by cyberphysical systems, computing, and the Internet of Things (IoT) are related to artificial intelligence and big data, and teachers must adapt and take advantage of these developments to increase their competence [3].

Various changes and developments arising from the development of science and technology have an impact on the world of education in terms of management, personnel, and curriculum implementation. The world of education must prepare students to face competition in the industrial era 4.0 and society 5.0. As educational institutions, elementary schools must have teachers with a solid competence and adequate soft skills who will equip students with the skills needed in the 21st century [4]. Technology teachers can create changes in their teaching methods, media use, assessment systems, and learning materials that are increasingly relevant to student needs [5]. The teacher's main task is to help students succeed in the adaptive and academic processes. The teacher's primary concern in this context is knowing the subject well; transferring knowledge, skills, and experience to students; enhancing student development; evaluating learning outcomes;

Sustainability **2023**, 15, 919 2 of 18

determining educational and curriculum goals; and analyzing tasks to more effectively and efficiently contribute to teaching [6]. Teachers' training and professional development must be increasingly adapted to the demands and needs of 21st century education and the 4.0 industrial revolution. If teachers are supposed to help students develop the skills needed in the 21st century, then the teachers themselves must understand and have these skills so they can develop students' potential and skills.

One of the problems of primary education in Indonesia is the problem of teachers and teacher competence. According to data from the State Personnel Agency in 2021, it shows that the number of public teachers is only 1,345,201, even though the number of schools is 436,353 consisting of 171,509 public schools and 264,744 private schools [7]. As an addition, data from the Ministry of Education and Culture in 2019 show that Indonesia still lacks 870,000 teachers. The most impactful shortage of teachers is at the elementary school level because the number of teachers who retire reaches 45,000 to 50,000 every year [5] (p. 5706). According to data from the Central Statistics Agency for the Southwest Sumba Regency, the number of elementary schools in 2019 was 257, and it increased to 259 in 2020; additionally, the number of elementary school teachers was 2750 in 2019 and increased to 2798 in 2020 [8]. Data from the Central Statistics Agency for 2019 and 2020 show that the national teacher-student ratio in elementary schools is 1:32, even though the ideal ratio is 1:16 [9]. The competency test score for elementary school teachers in the Southwest Sumbawa district was 43.42, which was the lowest out of all the other levels; the score was even lower than the teacher competency test score for the East Nusa Tenggara province level, which was 48.68. The teacher competency test scores included a pedagogic competence of 43.19, professional competence of 45.97, and average teacher competence of 45.14 [10].

Efforts to increase the competence of elementary school teachers are critical. Teachers with high competence will be able to conduct high quality educational activities and help students enhance their abilities and learning outcomes. The first step to increasing teacher competence is to provide an overview of the teacher competence levels in the Southwest Sumba district. With this study, we aim to describe the competence of elementary school teachers in Southwest Sumba Regency based on elementary school students' perceptions of their teachers. This research has implications for the efforts of principals and local governments to increase teacher competence in elementary schools.

2. Literature Review

The concept of competence has a long history in research, educational, and training practice. Teachers are an important component of educational activity. They must have the requisite technological infrastructure, knowledge, and pedagogical infrastructure to handle the essential process in order to effectively manage instructional activities throughout the course. Furthermore, it should be able to prepare and assign time for the essential teaching materials for the instructional activities to be carried out [11]. The OECD average for teachers not having enough time to produce relevant digital content is around 60%, whereas it is around 85% in Turkey [12]. In this regard, it is clear that instructors in Turkey have numerous time constraints. According to OECD data, the required technical knowledge and infrastructure for teachers is 65%, while it is almost 75% in Turkey [12]. However, no consensus on the conceptual definition of competency-based education exists. Competence refers to different and sometimes contrasting concepts in different countries [13]. Competence is an essential characteristic of how a person behaves or thinks in different situations and adapts to changes from time to time [14], and studies exploring this concept exist [15]. The achievement of Indonesia's national education goals is directly related to the competence of teachers in implementing the educational curriculum. Teacher competence is the ability of teachers to responsibly and appropriately fulfil their obligations [16]. Competence is the ability to adjust one's skills to situational demands, and it relates to the quality and ability to transfer skills over time and in various contexts [17]. Teacher competence refers to teacher qualifications (such as education level and specialization and

Sustainability **2023**, 15, 919 3 of 18

knowledge of scientific and pedagogical content) and characteristics such as confidence and self-efficacy [18]. Teacher competence is the basis of teaching and learning, and competent teachers can influence student learning outcomes.

Teacher competencies in schools include cognitive competence, which is competence related to intellectual and moral development, different types of development, and different types of participation in social and cultural processes; communicative competence, which is competence in self-expression and understanding others; and organizational competence, which is the competence to independently make decisions and take responsibility for the tasks performed [19].

The following are examples of teacher competency studies. Research on the pedagogical competence of 60 elementary school teachers in Sumedang District revealed that 77.1% were able to master student characteristics, 73.9% mastered theories about student development, 75.9% communicated effectively, 75.2 were able to develop curriculum, 74% were able to carry out the learning process effectively, 73.9% are able to use information technology in the learning process, 76% are able to conduct learning assessments, and 76% are able to utilize the research [20]. Patel's (2016) [21] research on 20 primary school teachers in the Gandhinagar District revealed that 19.5% of instructors had high pedagogic competence, 55.5% had moderate competence, and 25.5% had low competence.

According to research on the professional competency of 30 elementary school teachers enrolled in the teaching profession program at Nahdlatul Ulama University in Surabaya, the average teacher is proficient in the areas of technology, pedagogy, and material content. The average scores for technological knowledge, pedagogical knowledge, and material subject knowledge were found to be 3.01, 3.0, and 2.98, respectively [22].

A qualitative study employing observation and interview techniques to examine the personalities of Muhammadiyah elementary school teachers in Gorontalo City revealed that teachers lack a broad perspective on diversity, do not share their experiences with colleagues, do not uphold the reputation of their schools, lack discipline, and do not contribute to development. School demonstrates few positive accomplishments [23]. Another study examining the connection between teacher personality and job satisfaction revealed that personality competence was in the medium range with an average score of 3.9, whilst job satisfaction was in the high range with an average score of 4.4. According to a regression study, the personality competency of the educator has a positive effect on job satisfaction. A 0.806% rise in teacher work satisfaction followed an improvement in personality competency [24].

The ability to communicate orally and in writing was found to be mostly quite good (43%) and good (53%); the ability to use information technology was found to be mostly quite good (27%) and good (70%); the ability to get along with students and parents was found to be quite good (17%) and good (76%); and the ability to get along pleasantly with the surrounding community was found to be quite good (28%) and good (67%) [25].

The types of competencies that a teacher must acquire in order to have a synergistic effect on students are organized into three groups: teacher competence to promote cognitive, effective motivational, and social processes in students [26]. The Dutch Foundation for Professional Teaching Competence developed a competency framework for primary school teachers, which includes interpersonal, pedagogic, didactic, subject, and organizational competence; competence in cooperating with colleagues and the school environment; and reflection and development competence [27]. Teacher competence in Indonesia is first regulated based on Law Number 14 of 2005 concerning teachers and lecturers [10] (particularly Article 10). Then, it is regulated in more detail in the Regulation of the Minister of National Education Number 16 of 2007 [10] (article 20, paragraph 2). The teacher's competencies include pedagogic, professional, personality, and social competence, and all competencies are integrated and visible in teacher performance. This study follows government regulations. The following sections discuss the details of each competence type.

Sustainability **2023**, 15, 919 4 of 18

A study on the competence of elementary school teachers in Patumbak subdistrict, Deli Serdang district, North Sumatra Province revealed the following: (1) pedagogical competence had a good category with the highest scores for assessment and evaluation, while the lowest was in curriculum development; (2) professional competence in problem solving skills had a good category with the highest percentage in mastery of mathematical concepts, while the lowest was in the history of the Indonesian nation; (3) social competence was a strong category, with the highest score for communicating with the professional community and the lowest score for acting objectively and without discrimination [28].

Elementary school teachers in Tangerang district, Banten Province, scored higher on average than their counterparts in Tangerang city, according to a study of teacher competency that focused on English-language proficiency [29]. This indicates that elementary school teachers in Tangerang's rural areas have a greater level of scientific knowledge and English proficiency than their urban counterparts.

Research on the performance of elementary school teachers in Sinjai District, South Sulawesi Province, revealed that government servants and non-civil servants performed similarly [30]. Research comparing the performance of instructors in schools with accreditation A and B revealed that there was a considerable difference between the performance of teachers in accreditation A and B, with teachers in schools with accreditation A demonstrating superior performance [31].

2.1. Pedagogic Competence

In general, pedagogical competence is a collection of potential behaviors or capacities that either enables teachers to efficiently manifest teaching and learning activities or is a minimum professional standard determined by regulations that professional teachers must achieve [32]. Teachers' pedagogic competencies include (1) mastering the characteristics of students from physical, moral, social, cultural, emotional, and intellectual aspects; (2) mastering learning theory and teaching learning principles; (3) developing a curriculum related to the subjects taught; (4) organizing educational learning; (5) utilizing information and communication technology for learning purposes; (6) facilitating the development of students' potential to actualize their various potentials; (7) effectively, empathically, and politely communicating with students; (8) conducting assessments and evaluations of learning processes and outcomes; (9) utilizing the results of the assessment and evaluation for the benefit of learning; and (10) taking reflective action to increase the learning quality. Teachers can enhance pedagogic competence in educational practice to achieve the competence needed in the 21st century by transforming curricula to facilitate the achievement of 21st century competencies, enabling a teaching focus that emphasizes "deeper learning" and cooperative learning for students, using teaching strategies to support the teaching focus, using technology, using informal and experiential learning, using assessment practices that depart from transformative pedagogy, and designing physical spaces (classrooms) to build a learning climate that is relevant to the 21st century [33].

2.2. Professional Competence

A competent teacher responsibly and effectively acts according to predetermined performance standards. Professional competence is a generic, integrated, and internalized ability to effectively (decently) and sustainably perform in a professional work and organizational context and in specific task situations [34]. The professional competence of elementary school teachers includes (1) mastering the material, structure, concepts, and scientific mindset that supports the subjects being taught; (2) mastering the competency standards and essential competencies of the subjects or development fields being taught; (3) developing learning materials; (4) sustainably developing professionalism; and (5) utilizing information and communication technology to communicate and develop themselves. In this context, teachers must master the crucial elements of implementing 21st century teaching and learning; namely, they must (1) master core subjects, (2) emphasize learning skills, (3) use 21st century learning tools to develop learning skills, (4) teach and learn in a

Sustainability **2023**, 15, 919 5 of 18

21st century context, (5) teach and learn 21st century content, and (6) use assessments to measure the skills needed in the 21st century [35]. The traditional method of teaching still involves the teacher giving material to passive students (typically in the form of so-called frontal instruction). In this situation, it was discovered that the lower the utilization of ICT tools in Nepali mathematics classes, the less familiar mathematics teachers were with ICT tools. We have also observed that this teaching method (traditional method) has an impact on student performance, demotivates students in mathematics learning, and causes anxiety in maths. According to current surveys and studies, several institutions have discovered that a sense of dread worsens math computations and even hurts working memory, hence affecting mathematics performance. This worry is growing rapidly, and an increasing number of pupils, young and old, are affected [36].

2.3. Personality Competence

The personality of a teacher is an influential factor that affects how they conduct most of the activities in the classroom. Practical teacher personality competencies include accurate insight, manners (complacent), resilience, creativity, calmness, and humor. Teachers must be patient, enthusiastic, energetic, self-satisfied, and open minded and must use self-disclosure to build stronger student bonds [37]. The personality competencies of elementary school teachers include (1) acting under Indonesian religious, legal, social, and national cultural norms; (2) presenting oneself as an honest person with a noble character and an example for students and the community; (3) presenting oneself as a person who is steady, stable, mature, wise, and authoritative; (4) demonstrating a strong work ethic, high responsibility, pride in being a teacher, and self-confidence; and (5) upholding the code of ethics of the teaching profession.

2.4. Social Competence

Social competence involves the set of social skills necessary to achieve goals in social interactions [38] in the classroom, school, and outside of school. However, no universal definition of social competence exists. One reason for this may be that social competence is the research object in various social science branches [39]. The social competence of teachers consists of (1) being inclusive, acting objectively, and not discriminating according to gender, religion, race, physical condition, family background, or socioeconomic status; (2) effectively, empathically, and politely communicating with fellow educators, education staff, parents, and the community; (3) adapting to all regions of Indonesia, which are socioculturally diverse; and (4) communicating with their professional community and other professions both orally and in writing or other forms.

Social skills are related to the students' ability towards their immediate environment and influence students' attitudes, especially social skills. Some students' social skills in socializing are introvert–extrovert, passive–active, asocial–friendly, proactive–reactive, communicative–non-communicative, optimistic–pessimistic, caring–ignorant, assertive–aggressive, obedient–dominant, and adaptive–inflexible [40]. In addition, social skills can be seen in empathy, leadership, emotional control, assertiveness, and proactivity [41]. Social skills in the career and work performance influence the design of educational curricula, and social skills in the general public as citizens influence general compulsory education and post-compulsory education [42].

3. Methodology

3.1. Research Approach, and Variables

We conducted this research at elementary schools in the Southwest Sumba district, East Nusa Tenggara Province, Indonesia. We used a comparative quantitative approach [43] to compare the competencies of elementary school teachers based on student perceptions, and we took three factors into account: (1) whether the school was in an urban or rural area; (2) whether the school was not yet accredited, had C accreditation, or had B accreditation; and (3) whether the school was public or private. Elementary school students in the district

Sustainability **2023**, 15, 919 6 of 18

of Southwest Sumba were the subjects of this study. We took a 10% sample [44,45] from 257 elementary schools; in other words, we collected data from 26 elementary schools. We used simple randomization to determine the sample size. Then, we obtained a sample of grade VI students from grades I–VI. In total, 1281 grade VI students filled out the questionnaire. The research variables for teacher competence consist of 4 variables, namely pedagogic competence, professional competence, personality competence, and social competence. The components and indicators for this research variable refer to Indonesian government regulations in the Minister of National Education Regulation number 6 of 2007 concerning Standards for academic qualifications and teacher competence, especially for elementary school teachers. The pedagogic competency variable consists of 8 indicators and 15 items, professional competence consists of 5 indicators and 6 items, personality competence consists of 5 indicators and 12 items, social competence consists of 4 indicators and 7 items.

3.2. Population and Sample

The population and sample of the study were elementary school students in Southwest Sumba district, East Nusa Tenggara, Indonesia. The participants in this study are elementary school students. Using simple random sampling, a total sample of 10% of the population was selected [44]. Southwest Sumba district has 257 elementary schools [46]; hence, the number of samples was 10% of 257 elementary schools, or 26. In addition, according to the sampling procedure, a sample of 1502 children from class VI primary school was obtained; nevertheless, 1281 students, or 85.3% of the sample, completed the questionnaire. In the Southwest Sumba district, East Nusa Tenggara, Indonesia, the sample was drawn from both public and private schools in towns, subdistricts, and villages. The sampling technique is simple random sampling [47,48]. According to Table 1, the number of elementary schools in the Southwest Sumba district is 257 [46]. The sampling steps follow. (1) Determine the sample of elementary schools. Sampling of elementary schools refers to the sampling example of [44] in a book titled *Educational Research*: Competencies for Analysis and Applications, recommending as much as 10% of the population. Based on these references, the number of primary school samples in this study were 26 elementary schools. According to the [10], out of 26 elementary schools there are 10 elementary schools in cities and 16 in villages; 11 elementary schools have not been accredited, 8 elementary schools have been accredited C, and 7 elementary schools have been accredited B, none have been accredited A; 14 are public primary schools and 12 are private primary schools. (2) Determine the sample classes in elementary schools. Elementary schools in Indonesia consist of classes I-VI. After a draw, the chosen one was class VI. (3) Make all students of class VI at 26 elementary schools as research subjects. The number of students in class VI was 1502 people. The number of students who successfully filled out the questionnaire was 1281 or 85% of the research subjects. A sample of 1281 is considered sufficient to represent the population of elementary school students in the Southwest Sumba district, which totaled 69,284 at the last data collection [46]. This is also in accordance with the opinion of [49] that with a population of 50,000–100,000, the number of samples should be 1045-1056 with a 95% trustable level.

Sustainability **2023**, 15, 919 7 of 18

 Table 1. Research instrument grid.

Variable	Indicator	Number of Item
	Mastering student characteristics	2
	Mastering learning theory and learning principles	3
	Developing curriculum	1
Pedagogic Competence	Carrying out learning activities	2
	Using information technology in learning	2
	Developing students' potential	2
	Communicating effectively and politely	2
	Carrying out assessment of learning outcomes	1
	Mastering subject matter 1	2
Professional Competence	Mastering competency standards and basic competencies 2	1
	Developing subject matter 3	1
	Using information technology to communicate and develop themselves.	1
	Taking reflective action to develop their profession	1
	Doing in accordance with applicable norms	2
	Presenting yourself as an honest person, have noble character, and be a role model for students	2
Personality Competence	Presenting yourself as a person who is steady, stable, mature, wise, and authoritative	4
	Demonstrating work ethic	3
	Upholding the code of ethics of the teaching profession	1
Social Competence	Being inclusive, act objectively, and not discriminate	3
	Communicating effectively, empathetically, and politely with fellow teachers	2
	Adapting on the job	1
	Communicating with the professional community itself and other professions	1
Total		40

Sustainability **2023**, 15, 919 8 of 18

3.3. Research Instrument

The research instrument we used was a questionnaire on the students' perceptions of the competence of elementary school teachers. The questionnaire had 40 items, including 15 on pedagogic competence, 6 on professional competence, 12 on personality competence, and 7 on social competence. The response options were formatted on a Likert scale, consisting of 4 alternative answers, namely, never (score 1), seldom (score 2), often (score 3), and always (score 4). The pedagogic competency instrument consists of 15 items, including knowledge of student conditions, student abilities, student difficulties or problems, teaching preparation, lesson topics, giving exams and assessments, learning objectives, subject matter, guiding students, utilizing learning media, understanding the use of ICT (such as a laptop/computer), facilitating student learning, developing student skills, using language students understand, and speaking politely. The professional competition instrument comprises six items: establishing student learning objectives, describing subject matter, addressing teaching errors, utilizing textbooks, utilizing laptops when teaching, and teaching elementary school courses. The personality competition consists of 12 categories: praying before and after lessons, starting and ending on time, dressing politely and neatly, patiently guiding students, explaining material to students who don't understand, giving praise to students, giving polite reprimands to students who make mistakes, attending school daily, teaching daily, being confident in class, and abiding by school rules. Social competence is comprised of seven components: listening to students' opinions, getting along with all students, accepting student weaknesses or strengths, speaking politely with fellow teachers, speaking politely with parents of students, respecting differing opinions, and using cell phones to communicate with teachers or other people. Researchers used a questionnaire as a research instrument. Its grid is shown in Table 1.

Based on Table 1, the research instrument consists of 40 items. The pedagogic competence instrument consists of 8 indicators and 15 questionnaire items, namely knowledge about student conditions, student abilities, student difficulties or problems, teaching preparation, subject topics, giving exams and assessments, learning objectives, subject matter, guiding students, using learning media, understanding using ICT (such as laptops/computers), facilitating student learning, developing student skills, using language that students understand, and speaking politely. The professional competition instrument consists of 5 indicators and 6 questionnaire items, namely writing student learning objectives, explaining subject matter, correcting mistakes in teaching, using textbooks, using laptops when teaching, teaching elementary school subjects. The personality competence consists of 5 indicators and 12 questionnaire items, namely praying before and after lessons, starting and stopping teaching on time, dressing politely and neatly, patiently guiding students, explaining material to students who do not understand, giving praise to students, giving polite reprimands for those who make mistakes, come to school every day, teach every day, are confident in class, and obey school rules. Social competence consists of 4 indicators and 7 items, namely listening to students' opinions, getting along with all students, accepting student weaknesses or strengths, talking politely with co-teachers, talking politely with parents of students, respecting opinions that differ from theirs, using mobile phones to communicate with teachers or parents who are not at school. We modified the questions to respond to the requirements of the present survey by including items from all the explained teachers' competence [50,51].

The instrument's validity and reliability were carried out with the following procedures: (1) conducting instrument validation with educational and psychology experts; (2) testing the readability of the instrument on 6 students of grades V and VI to find out whether they understood the questionnaire items or not. Items that were not understood were immediately revised according to student understanding, (3) testing the instrument to 30 students of grade VI who were not included as respondents. The instruments tested amounted to 48 items where 40 items were valid and 8 items were invalid (N = 30, r table = 0.361). The results of the reliability test showed that the instrument was reliable (Cronbach's score was 0.934 > 0.361).

Sustainability **2023**, 15, 919 9 of 18

3.4. Analyzing the Data

The data units are in elementary schools. The data analysis included a descriptive statistical, normality, and homogeneity analysis, as well as hypothesis testing. The normality and homogeneity test criteria were as follows: If the significance was >0.05, then the data were normally distributed and homogeneous. If the significance was <0.05, then the data were not normally distributed and were not homogeneous (Priyatno, 2013, p. 26). We used an ANOVA test analysis to perform hypothesis testing on the homogeneous data. We used the Kruskal-Wallis statistical test to perform hypothesis testing on the inhomogeneous data [52]. H0 could be accepted, meaning no difference existed between the research variables, or it could be rejected, meaning a difference existed between the research variables. If the significance was >0.05, we accepted H0; if the significance was <0.05, we rejected H0 [53]. The data normality test uses the Kolmogorov-Smirnov criterion if the significance value is less than 0.05 (\leq 0.05) then the data is not normally distributed, but if the significance value is greater than 0.05 (>0.05) then the data is normally distributed [54,55]. Descriptive analysis of the data displays the average value of teacher competence by region, accreditation, and school status to show differences in teacher competence [56]. If the data are normally distributed, the difference test uses the ANOVA test. If it is not normally distributed, then the Kruskal-Wallis statistical test is used [52,57]. If the significance is less than 0.05 (meaning H0 is rejected), then there is a significant difference in the variable, but if the significance is greater than 0.05 (meaning H0 is accepted), it means that there is no significant difference in the variable [58].

3.5. Research Procedure

The research steps in this study covered (1) preparation of background, problem formulation, and research objectives; (2) a literature review to provide a theoretical basis for research variables; (3) preparation of research grids and instruments, whereby the research instrument was arranged based on research variables; (4) testing the instrument to determine the validity and reliability of the instrument, where instrument testing was carried out on 30 elementary school students who were not included in the research sample and the validity test used Pearson Product Moment while the reliability test used Alpha Cronbach; (5) data collection and analysis, whereby data collection was carried out using a questionnaire and data analysis was carried out using the ANOVA test, the Kruskal–Wallis statistical test and SPSS software version 20.0; (6) draw conclusions to answer the problem formulation. Initially, a descriptive analysis was conducted to investigate teachers' competence on the potential factors influencing their willingness to engage in a web survey with a questionnaire [51].

3.6. Research Validity and Reliability

Researchers used a questionnaire as an instrument of this study. Before being used as a research instrument, trials were carried out to determine the validity and reliability of the instrument. The procedure for determining the validity and reliability of the instrument included (1) conducting instrument validation with education and psychology experts; (2) testing the readability of the instrument on 6 students between grades V and VI to find out whether they understood the questionnaire items or not; items that were not understood were immediately revised according to students' understanding; (3) testing the instrument on 30 class VI students who were not included as respondents; the instruments tested amounted to 48 items. The Pearson Product Moment test ((N = 30, r-table = 0.361) showed that 40 items are valid and 8 items are invalid. The results of the reliability test using Cronbach's Alpha showed a score of 0.934 > 0.361). So, the instrument is said to be valid and reliable and can be used as a research instrument for elementary school teacher competence.

Sustainability **2023**, 15, 919 10 of 18

4. Findings and Results

4.1. Data Description

Our data include a description of the region, accreditation, and status of the school. The data in Table 2 show that students from 26 primary schools participated in this study. By region, 10 (38%) of the primary schools were in cities and 16 (62%) were in villages. Based on school accreditation, 11 (42%) primary schools were not accredited, 8 (31%) were primary schools with C accreditation, and 7 (27%) had B accreditation. In total, 46% of the schools were private elementary schools.

	Areas		Sc	School Accreditation		School Status	
	City	Rural	Non	С	В	State	Private
Frequency	10	16	11	8	7	14	12
Percentage (%)	38	62	42	31	27	54	46

The description of teacher competencies in Table 3 shows that (1) regarding teacher competencies based on urban and rural areas, (a) a difference existed in the average value of teacher competence in cities and villages; (b) the average teacher competence value was higher for teachers in the city than teachers in the village; and (c) the average value of the pedagogic, professional, personality, and social competencies of the teachers in the city was higher than that of the teachers in the village. (2) Regarding teacher competence based on school accreditation, (a) differences in teacher competence based on school accreditation status existed and (b) the average teacher competence value for teachers in C-accredited schools was higher than that of teachers in B-accredited schools and schools that were not yet accredited. (3) Regarding teacher competence based on the status of public and private schools, (a) differences existed in teacher competence based on school status and (b) the average competency score of the teachers in private schools was higher than that of the teachers in public schools.

Table 3. Average scores and description of teachers' competence.

37 • 11	Aı	rea Accreditat		Accreditation	tion Scl		School Status	
Variables –	City	Rural	Non	С	В	State	Private	
Pedagogic (X1)	47.43	42.70	43.56	47.03	43.99	44.33	45.26	
Professional X2)	18.27	16.76	17.15	18.41	16.75	17.41	17.47	
Personality (X3)	39.27	36.05	37.00	39.02	36.47	37.56	37.48	
Social (X4)	21.75	20.29	20.51	21.62	20.74	20.86	21.03	
Teachers' Competence (X)	126.7	115.8	118.2	126.1	118.0	120.2	121.3	

4.2. Data Normality Test

The results of the normality test of the data based on the Kolmogorov–Smirnov test showed that the significance value of pedagogic, professional, personality, and social competence was 0.001, 0.000, 0.000, and 0.000, respectively. Then, we concluded that the data were not normally distributed shown in Table 4.

Sustainability **2023**, 15, 919 11 of 18

One-Sample Kolmogorov–Smirnov Test								
		Pedagogic (X1)	Professional (X2)	Personality (X3)	Social (X4)			
N		1281	1281	1281	1281			
Normal	Mean	44.86	17.45	37.51	20.96			
Parameters	Std. Deviation	8.507	3.701	7.363	4.753			
M T	Absolute	0.054	0.093	0.100	0.082			
Most Extreme	Positive	0.049	0.058	0.077	0.069			
Differences	Negative	-0.054	-0.093	-0.100	-0.082			
Kolmogorov–Smirnov Z		1.924	3.319	3.565	2.936			
	g. (2-tailed)	0.001	0.000	0.000	0.000			

Table 4. Description of data normality test results.

4.3. Hypothetical Test of Teacher Competency Hypothesis Based on Urban and Rural Areas

The results of the data normality test showed that the data were not normally distributed. Because the data were not normally distributed, we performed a hypothesis test using the Kruskal–Wallis test.

As displayed in Table 5, the results of the hypothesis test on teacher competency based on school area showed that the significance value of teacher competence was 0.000, meaning we rejected H0 and accepted Ha. We concluded that a significant difference existed in the competence of elementary school teachers in urban and rural areas. The significance value of the teachers' pedagogic competence was 0.000, meaning that we rejected H0 and accepted Ha. We concluded that a significant difference existed in the pedagogic competence of primary school teachers in urban and rural areas. The significance value of teacher professional competence was 0.000, meaning that we rejected H0 and accepted Ha. We concluded that significant differences existed in the professional competence of elementary school teachers in urban, subdistrict, and village areas. The significance value of the teachers' personality competence was 0.000, meaning that we rejected H0 and accepted Ha. We concluded that a significant difference existed in the personality competencies of elementary school teachers in urban, subdistrict, and village areas in Southwest Sumba Regency.

Table 5. The results of the teacher com	petency hyp	othesis test by region.
--	-------------	-------------------------

		Test Statistics		
	Pedagogic	Professional	Personality	Social
Chi-Square	97.689	55.201	59.670	31.010
df	1	1	1	1
Asymp. Sig.	0.000	0.000	0.000	0.000

As shown in Table 6 below, the results of the teacher competency t-test by region show that the Sig. (2-tailed) pedagogic competence 0.000 < 0.05, so there are differences in the pedagogic competence of teachers in cities and villages. Sig. Value (2-tailed) pedagogic competence 0.000 < 0.05, then there are differences in the pedagogic competence of teachers in cities and villages. Sig. Value (2-tailed) professional competence 0.000 < 0.05, so there are differences in the professional competence of teachers in cities and villages. Sig. Value (2-tailed) personality competence 0.000 < 0.05, so there are differences in cities and in villages. Sig. Value (2-tailed) social competence 0.000 < 0.05, then there are differences in the social competence of teachers in cities and villages.

Sustainability **2023**, 15, 919 12 of 18

Table 6. <i>T</i> -test results on the teachers'	competency	by region.
---	------------	------------

Equal Variances Assumed								
Teachers'			t for Equality iances	T-Test for Equality of Means				
Competence		F	Sig.	t	df	Sig. (2-tailed)		
Pedagogic	Equal variances assumed	10.64	0.001	10.314	1279	0.000		
	Equal variances assumed			10.419	1273.295	0.000		
Professional	Equal variances assumed	12.349	0.000	7.433	1279	0.000		
	Equal variances assumed			7.51	1273.651	0.000		
Personality	Equal variances assumed	14.115	0.000	7.984	1279	0.000		
	Equal variances assumed			8.065	1273.092	0.000		
Social	Equal variances assumed	1.321	0.251	5.534	1279	0.000		
	Equal variances assumed			5.554	1254.137	0.000		

4.4. Hypothetical Test of Teacher Competency Based on School Accreditation

As displayed in Table 7, the results of the hypothesis test on teacher competence based on school accreditation showed that the significance value of the pedagogic teacher competence was 0.000, meaning we rejected H0 and accepted Ha. We concluded that a significant difference existed in the competence of teachers in schools that were not accredited, C accredited, and B accredited. The significance value of the teacher professional competence was 0.000, meaning we rejected H0 and accepted Ha. We concluded that a significant difference existed in the professional competence of teachers in schools that were not accredited, C accredited, and B accredited. The significance value of teacher personality competence was 0.000, meaning we rejected H0 and accepted Ha. We concluded that significant differences existed in the personality competencies of teachers in schools that were not accredited, C accredited, and B accredited in the Southwest Sumba district. The significance value of teacher social competence was 0.000, meaning we rejected H0 and accepted Ha. We concluded that significant differences existed in the social competence of teachers in schools that were not accredited, C accredited, and B accredited in the Southwest Sumba district.

Table 7. The results of the teacher competency hypothesis test by accreditation.

		Test Statistics		
	Pedagogic	Professional	Personality	Social
Chi-Square	33.742	34.116	29.662	13.217
df	2	2	2	2

The results of the teacher competency t-test in Table 8 show that there are differences in teacher competence according to school accreditation. The significance value of pedagogic competence is 0.000 < 0.05, then there are differences in teacher pedagogic competence in schools that are not accredited, and accreditation C and accreditation B schools. The significance value of professional competence is 0.000 < 0.05, then there are differences in the professional competence of teachers in schools that are not accredited, and accredited C and accredited B schools. The significance value of personality competence is 0.000 < 0.05, then there are differences in teacher personality competencies in schools that are not accredited, and accredited B schools. The significance value of social competence is 0.001 < 0.05, then there are differences in the social competence of teachers in schools that are not accredited, and accredited C and accredited B schools.

Sustainability **2023**, 15, 919 13 of 18

Table 8. <i>T</i> -test resu	lts on the teachers	s' competency l	oy school	l accreditation.

		ANOVA	A			
		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	3090.104	2	1545.052	22.049	0.000
Pedagogic	Within Groups	89,552.18	1278	70.072		
	Total	92,642.28	1280			
Professional	Between Groups	632.333	2	316.166	23.911	0.000
	Within Groups	16,898.36	1278	13.223		
	Total	17,530.69	1280			
	Between Groups	1524.826	2	762.413	14.356	0.000
Personality	Within Groups	67,873.16	1278	53.109		
	Total	69,397.98	1280			
Social	Between Groups	297.395	2	148.697	6.64	0.001
	Within Groups	28,618.16	1278	22.393		
	Total	28,915.55	1280			

4.5. Hypothetical Test of Teacher Competency Based on School Status

As shown in Table 9, the results of the hypothesis test on teacher competence based on school status showed that the significance value of pedagogic competence was 0.043, meaning we accepted H0 and rejected Ha. We concluded that no significant difference existed in the pedagogic competence of teachers in public and private schools. The significance value of professional competence was 0.745, meaning we accepted H0 and rejected Ha. We concluded that no significant difference existed in the professional competence of teachers in public and private schools. The significance value of personality competence was 0.953, meaning we accepted H0 and rejected Ha. We concluded that no significant difference existed in the personality competencies of teachers in public and private schools. The significance value of teacher social competence was 0.361, meaning we rejected H0 and accepted Ha. We concluded that no significant difference existed in the social competence of teachers in public and private schools.

Table 9. The results of the teacher competency hypothesis test by school status.

		Test Statistics		
	Pedagogic	Professional	Personality	Social
Chi-Square	4.084	0.106	0.003	0.833
df	1	1	1	1
Asymp. Sig.	0.043	0.745	0.953	0.361

The results of the teacher competency t-test by region in Table 10 above showed no difference in teacher competence in public and private schools. Sig. Value (2-tailed) pedagogic competence 0.053 > 0.05, so there is no difference in the pedagogic competence of teachers in public and private schools. Sig. Value (2-tailed) professional competence 0.782 > 0.05, so there is no difference in the professional competence of teachers in public and private schools. Sig. Value (2-tailed) personality competence 0.858 > 0.05, so there is no difference in the personality competences of teachers in public and private schools. Sig. Value (2-tailed) social competence 0.510 and 0.052 (>0.05), so there is no difference in the social competence of teachers in public and private schools.

Sustainability **2023**, 15, 919 14 of 18

	Equal Variance	es Assumed			
	Levene's Test for Equality of Variances		T-Test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	5.914	0.015	-1.934	-1.934	0.053
Equal variances assumed			-1.948	-1.948	0.053
Equal variances assumed	2.305	0.129	-0.276	-0.276	0.782

0.424

0.003

Table 10. *T*-test results on the teachers' competency by school status.

0.64

8.656

5. Discussion

Equal variances assumed

Teachers'
Competence

Pedagogic

Professional

Personality

Social

The average teacher competency scores were different when considering regional categories, school accreditation, and school status. This finding shows that regional differences, school accreditation, and school status contribute to the competence of primary school teachers. We found that the competence of elementary school teachers in urban areas was higher than that of rural teachers. This finding was reinforced by the hypothesis testing results, which showed a significant difference in teachers' competence in cities and villages. Various factors may have caused this, such as education gaps in cities and villages, as schools are more accessible in cities than in villages; the fact that facilities, infrastructure, information and communication technology, and facilities owned by teachers are of a higher quality in cities than in villages [59]; the fact that more teachers are present and accessing educational information is easier in cities; and the fact that professionalism drives head leadership, teacher attitudes about their profession [60], and teachers' work motivation in cities [61].

-0.277

0.179

0.18

-0.66

-0.665

-0.277

0.179

0.18

-0.66

-0.665

0.782

0.858

0.858

0.510

0.509

We also found that teachers in C-accredited schools had more competence than teachers in nonaccredited schools. Teachers in C-accredited schools had more competence than those in B-accredited schools. The hypothesis testing results reinforce this finding, as they showed that a significant difference existed in the competence of teachers in C-accredited schools when compared with teachers in unaccredited schools and B-accredited schools. This result shows that the school accreditation status impacts teacher competence. However, school accreditation does not automatically support the competence of teachers in the Southwest Sumba district. Scholars generally accept that the competence of teachers in schools with higher accreditation will be higher than that of teachers in lower-accredited schools. The results of several studies have shown a relationship between school accreditation status and school quality, even though the nature of the relationship is not well understood [62]. The authors of another study also found a 42.6% correlation between teacher quality and school accreditation, with a significant and positive effect on student satisfaction [63]. Moreover, the authors of another study also found that school accreditation ratings had a linear impact on enhancing teacher performance, as they found that accreditation ratings increased as teachers' performance increased [31].

We also found a difference in the average competency scores of teachers in public and private schools, where the competence of private school teachers was higher than that of public school teachers. However, according to the hypothesis test results, the difference was not significant. That is, a difference existed in competition, but the difference was not significant. The authors of several other studies also found no difference between public and private schools in school accreditation [64]. The results of other studies also showed no significant difference in teacher professionalism between public and private elementary

Sustainability **2023**, 15, 919 15 of 18

schools in the Gajahmada Group, Gajahmungkur District, Semarang City [65]. The authors of a study comparing two public and private schools also found a positive relationship between the pedagogical knowledge and competence of teachers at the Kapuk 08 evening public elementary school and the Jakarta Cendrawasih elementary school [66]. In terms of literacy, the authors of another study found that public and private elementary school teachers had the same high level of digital literacy for almost all subvariables. No significant difference existed between the two [67]. The educational standards set by the government through various regulations apply to all public and private schools, as the government nationally manages the education system through established education regulations. The government supervises education management, organized by the government and private sector, in the context of fostering and developing the education unit [68]. This impacts public and private elementary school teachers, who have the same opportunity to increase their competence to the maximum and optimize their performance in implementing school learning processes.

6. Conclusions

The conclusions of this study are that (1) differences in the competence of teachers in urban and rural areas exist and are significant; (2) differences in teacher competence in schools that have not been accredited, have been C accredited, and have been B accredited exist and are significant; (3) differences in teacher competence in public and private schools exist but are insignificant. Based on these findings, we provide suggestions in the following section.

7. Recommendations

(1) Elementary school teachers in villages need to increase their competence so that it is at least equal to that of teachers in cities, if not higher. The government and education management foundations should be more critical when designing professional development programs and primary school teacher competencies. (2) Leaders and teachers must try to increase schools' accreditation status, especially for schools that have not been accredited. (3) Teachers in public and private schools must try to increase their competence through professional development activities organized by the government and professional teacher associations.

8. Limitations

We cannot generalize the findings of this study to all education level contexts. Therefore, researchers need to explore competency aspects in teachers with diverse backgrounds who teach at different levels, not only elementary ones. In addition, our sample number was relatively small; therefore, researchers should conduct a follow-up study with a larger sample size to examine competencies in various educational contexts.

Author Contributions: Conceptualization, A.T.D.; methodology, A.T.D. and R.S.; validation, A.T.D.; formal analysis, A.T.D.; investigation, D.W. and R.S.; resources, D.W.; data curation, R.S.; writing—original draft preparation, A.T.D.; writing—review and editing, A.T.D., D.W., and R.S.; visualization, D.W.; supervision, D.W. and R.S.; project administration, R.S.; funding acquisition, A.T.D. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Institutional Review Board (or Ethics Committee) of University Educational Research Department (No. 0124/ 10 January 2022).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

Sustainability **2023**, 15, 919 16 of 18

References

1. Prasertcharoensuk, T.; Somprach, K.-L.; Ngang, T.K. Influence of Teacher Competency Factors and Students' Life Skills on Learning Achievement. *Procedia Soc. Behav. Sci.* **2015**, *186*, 566–572. [CrossRef]

- 2. Shaffer, L.; Thomas-Brown, K. Enhancing Teacher Competency through Co-Teaching and Embedded Professional Development. *J. Educ. Train. Stud.* **2015**, *3*, 117–125. [CrossRef]
- 3. Wulandari, S.P.; Trihantoyo, S. Pembinaan dan Pengembangan Profesional Guru Pada Era Revolusi Industri 4.0 [Professional Guidance and Development of Teachers in the Era of the Industrial Revolution 4.0]. *J. Manaj. Pendidik.* **2020**, *8*, 353–366.
- 4. Fitriyah, R.N. Pengembangan Kompetensi Guru di Era Revolusi Industri 4.0 Melalui Pendidikan dan Pelatihan [Teacher Competency Development in the Industrial Revolution Era 4.0 through Education and Training]. *Pros. SENDI _U* **2019**, *4*, 359–364. [CrossRef]
- 5. Mulyani, F.; Haliza, N. Analisis Perkembangan Ilmu Pengetahuan dan Teknologi (Iptek) Dalam Pendidikan [Analysis of the Development of Science and Technology (Science) in Education]. *J. Pendidik. Dan Konseling (JPDK)* **2020**, *3*, 101–109. [CrossRef]
- 6. Smolikevych, N. The teacher's main competencies in modern higher education. *Eur. Humanit. Stud. State Soc.* **2019**, *3*, 30–42. [CrossRef]
- 7. Darmaningtyas. Bencana Pendidikan: Krisis Guru dan Dosen PNS [Education Disaster: The Crisis of PNS Teachers and Lecturers]. Kompas Newspaper. 21 December 2022; 6.
- 8. Zogara, Y. Analisis Hasil Survei Kebutuhan Data Kabupaten Sumba Barat Daya 2020 [Analysis of the Results of the Southwest Sumba Regency Data Needs Survey 2020]; BPS Kabupaten Sumba Barat Daya: Tambolaka, Indonesia, 2020.
- 9. Luthfi, W. Melihat Catatan Rasio Murid-Guru dalam Jenjang Pendidikan di Indonesia [Viewing the Record of Stu-dent-Teacher Ratio in Education Levels in Indonesia]. Online, 7 Agust 2021. Available online: https://www.goodnewsfromindonesia.id/2021/11/25/melihat-catatanrasio-murid-guru-dalam-jenjang-pendidikan-di-indonesia (accessed on 20 March 2022).
- Kemendikbud. Statistik Sekolah Dasar [Elementary School Statistics]. Jakarta: Kementerian pendidikan dan Kebudayaan.
 2021. Available online: http://publikasi.data.kemdikbud.go.id/uploadDir/isi_3939CAB9-7519-4743-817D-451543C7CFBB_.pdf (accessed on 2 April 2022).
- 11. Can, Y.; Bardakci, S. Teachers' opinions on (urgent) distance education activities during the pandemic period. *Adv. Mob. Learn. Educ. Res.* **2022**, *2*, 351–374. [CrossRef]
- Yayuk, E.Y.; Restian, A.; Kuncahyono, K. Analisis Kompetensi Guru Di Sdn Girimoyo 2 Kabupaten Malang [Teacher Competency Analysis at Sdn Girimoyo 2 Malang Regency]. J. Ilm. Sekol. Dasar 2017, 1, 229–236. [CrossRef]
- 13. Oxfam Novib. *Quality Educators: An International Study of Teacher Competences and Standards*; Education International: Brussels, Belgium, 2011.
- 14. García-Carrión, R.; Díez-Palomar, J. Learning communities: Pathways for educational success and social transformation through interactive groups in mathematics. *Eur. Educ. Res. J.* **2015**, *14*, 151–166. [CrossRef]
- 15. Sulaiman, J.; Ismail, S.N. Teacher Competence and 21st Century Skills in Transformation Schools 2025 (TS25). *Univers. J. Educ. Res.* 2020, *8*, 3536–3544. [CrossRef]
- 16. Hatta, H.M. Empat Kompetensi Untuk Membangun Profesionalisme Guru [Four Competencies to Build Teacher Profes-Sionalism]; Nizamia Learning Center: Sidoardjo, Indonesia, 2018.
- 17. Caena, F.; Redecker, C. Aligning teacher competence frameworks to 21st century challenges: The case for the European Digital Competence Framework for Educators (*Digcompedu*). Eur. J. Educ. **2019**, 54, 356–369. [CrossRef]
- 18. Nilsen, T.; Bergem, O.K. Teacher Competence and Equity in the Nordic Countries. Mediation and moderation of the relation between SES and achievement. *Acta Didact. Nord.* **2020**, *14*, 1–26. [CrossRef]
- 19. Ciechanowska, D. Teacher Competence and Its Importance in Academic Education for Prospective Teachers. *Gen. Prof. Educ.* **2010**, *1*, 100–119.
- Suhandani, D.; Julia, J. Identifikasi Kompetensi Guru Sebagai Cerminan Profesionalisme Tenaga Pendidik Di Kabu-paten Sumedang (Kajian Pada Kompetensi Pedagogik) [Identification of Teacher Competence as a Reflection of the Profes-sionalism of Educators in Sumedang Regency (Study on Pedagogic Competence)]. Mimb. Sekol. Dasar 2014, 1, 128–141. [CrossRef]
- 21. Patel, M.A. A Study of Teaching Competency of Primary School Teachers. *Int. J. Res. Allah Subj. Multi Languanges* **2016**, *4*, 60–64. Available online: https://www.researchgate.net/publication/348936654_A_Study_of_Teaching_Competency_of_Primary_School_Teachers (accessed on 5 June 2022).
- Akhwani, A.; Rahayu, D.W. Analisis Komponen TPACK Guru SD sebagai Kerangka Kompetensi Guru Profesional di Abad 21 [Elementary Teacher TPACK Component Analysis as a Professional Teacher Competency Framework in the 21st Century]. J. Basicedu 2021, 5, 1918–1925. [CrossRef]
- Solong, N.P.; Husin, L. Penerapan Kompetensi Kepribadian Guru PAI [Application of PAI Teacher Personality Competence]. TA'DIBUNA J. Pendidik. Agama Islam 2020, 3, 57–74. [CrossRef]
- 24. Sukoyo, S.; Juhji, J. Interaksi Kompetensi Kepribadian Guru dengan Kepuasan Kerja [Teacher Personality Competency Interaction with Job Satisfaction]. *Munaddhomah J. Manaj. Pendidik. Islam* **2021**, 2, 95–102. [CrossRef]
- 25. Wati, L.; Yanzi, H.; Pitoewas, B. Hubungan Kompetensi Sosial Guru dengan Gaya Mengajar Guru [The Relationship between Teacher's Social Competence and Teacher's Teaching Style]. *J. Kult. Demokr.* **2017**, *5*, 1–14.
- 26. Peklaj, C. Teacher Competencies through the Prism of Educational Research. Cent. Educ. Policy Stud. J. 2015, 5, 183–204. [CrossRef]
- 27. Roelofs, E.; Sanders, P. Towards a Framework for Assessing Teacher Competence. Eur. J. Vocat. Train. 2007, 40, 123–139.

Sustainability **2023**, 15, 919 17 of 18

28. Triyusmidarti, N. Analisis Kompetensi Guru Sekolah Dasar di Kecamatan Patumbak kabupaten Deliserdang, Tesis. [Competency Analysis of Elementary School Teachers in Patumbak District, Deliserdang Regency]. Master's Thesis, Universitas Negeri Medan, Medan, Indonesia, 2017. Available online: http://digilib.unimed.ac.id/25742/ (accessed on 19 August 2022).

- 29. Ishak, I.; Mulyanah, M.Y. Pelatihan guru sd di tangerang: Implementasi tpr dalam meningkatkan penguasaan bahasa inggris [Elementary School Teacher Training in Tangerang: Implementation of TPR in Improving Mastery of English]. *Din. J. Pengabdi. Kpd. Masy.* 2020, 4, 1–5. [CrossRef]
- 30. Aisyah, N.T. Perbedaan Persepsi Kinerja Guru PNS Dan Non PNS Pada Sekolah Dasar Negeri Di Desa Saotengnga Kabupaten Sinjai [Differences in Perceptions of PNS and Non PNS Teacher Performance at Public Elementary Schools in Saotengnga Village, Sinjai Regency]. Makasar: Jurusan Manajemen Fakultas Ekonomi Dan Bisnis Islam Universitas Islam Negeri Alauddin Makassar. 2017. Available online: http://repositori.uin-alauddin.ac.id/11947/ (accessed on 10 August 2022).
- 31. Zebua, A.M.; Primanda, O. Perbedaan Kinerja Mengajar Guru Ditinjau Dari Peringkat Akreditasi Lembaga [Differences in Teacher Teaching Performance in terms of Institutional Accreditation Rank]. *Fitrah J. Islam. Educ.* **2020**, *1*, 204–215. [CrossRef]
- 32. Suciu, A.I.; Mâţă, L. Pedagogical Competences: The Key to Efficient Education. Int. Online J. Educ. Sci. 2011, 3, 411–423.
- 33. Ontario Public Service. 21st Century Competencies: Foundation Document for Discussion; Ontario Public Service: Toronto, ON, Canada, 2016.
- 34. Mulder, M. Conceptions of Professional Competence. In *International Handbook of Research in Professional and Practice-Based Learning*; Billett, H.G.S., Harteis, C., Eds.; Springer: Dordrecht, The Netherlands, 2014; pp. 107–137. [CrossRef]
- 35. Pacific Policy Research Center. 21st Century Skills for Students and Teachers; Kamehameha Schools, Research & Evaluation Division: Honolulu, HI, USA, 2010.
- 36. Maharjan, M.; Dahal, N.; Pant, B.P. ICTs into mathematical instructions for meaningful teaching and learning. *Adv. Mob. Learn. Educ. Res.* **2022**, *2*, 341–350. [CrossRef]
- 37. Habsy, B.A. Seni Memehami Penelitian Kuliatatif Dalam Bimbingan Dan Konseling: Studi Literatur [Understanding Qualitative Research in Guidance and Counseling: Literature Study]. *JURKAM J. KonselingMatappa* **2017**, *1*, 90–100. [CrossRef]
- 38. Legkauskas, V.; Magelinskaitė-Legkauskienė, Š. Importance of Social Competence at the Start of Elementary School for Adjustment Indicators a Year Later. *Educ. Res.* **2019**, *29*, 1262–1276.
- 39. Gedviliene, G.; Ziziene, S.; Gerviene, S.; Pasvenskiene, A. The Social Competence Concept Development in Higher Education. *Eur. Sci. J.* **2014**, *10*, 36–49.
- 40. Sánchez-Bolívar, L.; Escalante-González, S.; Martínez-Martínez, A. Motivation and Social Skills in Nursing Students Compared to Physical Education Students. Sport TK-Rev. Euroam. De Cienc. Del Deport. 2022, 11, 1–16. [CrossRef]
- 41. Sánchez-Bolívar, L.; Escalante-González, S.; Vázquez, L.M. Motivación de los Estudiantes Universitarios de Ciencias de la Educación Según Género, Cultura Religiosa y Habilidad Social Durante la Pandemia de COVID-19 [Motivation of University Students of Educational Sciences According to Gender, Religious Culture and Social Ability During the COVID-19 Pandemic]. Educar 2022, 58, 205–220. [CrossRef]
- 42. Villardón-Gallego, L.; Flores-Moncada, L.; Yáñez-Marquina, L.; García-Montero, R. Best Practices in the Development of Transversal Competences among Youths in Vulnerable Situations. *Educ. Sci.* **2020**, *10*, 230. [CrossRef]
- 43. Ibrahim, A.; Alang, A.H.; Baharuddin, M.; Ahmad, M.A.; Darmawati. *Metodologi Penelitian [Research methodology]*; Gunadarma Ilmu: Makasar, Indonesia, 2018.
- 44. Gay, L.R.; Mills, G.E.; Airasian, P. Educational Research: Competencies for Analysis and Applications, 10th ed.; Pearson: Boston, MA, USA, 2012.
- 45. Lupu, N.; Michelitch, K. Advances in Survey Methods for the Developing World. *Annu. Rev. Politi- Sci.* **2018**, 21, 195–214. [CrossRef]
- 46. Statistik, B.P. *Kabupaten Sumba Barat Daya Dalam Angka 2020 [Southwest Sumba Regency in Figures 2020]*; Badan Pusat Statistik Kabupaten Sumba Barat Daya: Tambolaka, Indonesia, 2020.
- Pace, D.S. Probability and Non-Probability Sampling An Entry Point for Undergraduate Researchers. Int. J. Quant. Qual. Res. Methods 2021, 9, 1–15.
- 48. Rahman, M.; Tabash, M.I.; Salamzadeh, A.; Abduli, S.; Rahaman, S. Sampling Techniques (Probability) for Quantitative Social Science Researchers: A Conceptual Guidelines with Examples. *SEEU Rev.* **2022**, *17*, 42–51. [CrossRef]
- 49. Cohen, L.; Manion, L.; Morrison, K. Research Methods in Education, 6th ed.; Routledge: Oxfordshire, UK, 2007.
- 50. Lavidas, K.; Papadakis, S.; Manesis, D.; Grigoriadou, A.S.; Gialamas, V. The Effects of Social Desirability on Students' Self-Reports in Two Social Contexts: Lectures vs. Lectures and Lab Classes. *Information* **2022**, *13*, 491. [CrossRef]
- 51. Lavidas, K.; Petropoulou, A.; Papadakis, S.; Apostolou, Z.; Komis, V.; Jimoyiannis, A.; Gialamas, V. Factors Affecting Response Rates of the Web Survey with Teachers. *Computers* **2022**, *11*, 127. [CrossRef]
- 52. Quraisy, A.; Wahyudinn, W.; Hasni, N. Analisis Kruskal-Wallis Terhadap Kemampuan Numerik Siswa [Kruskal-Wallis Analysis of Students' Numerical Ability]. VARIANSI J. Stat. Its Appl. Teach. Res. 2021, 3, 156–161. [CrossRef]
- 53. Priyatno, D. Analisis Korelasi, Regresi dan Multivariate Dengan SPSS [Correlation, Regression and Multivariate Analysis with SPSS]; Gava Media: Yogyakarta, Indonisia, 2013.
- Achmad, I.N.; Witiastuti, R.S. Underpricing, Institutional Ownership and Liquidity Stock of IPO Companies in Indonesia. Manag. Anal. J. 2018, 7, 280–290. [CrossRef]

Sustainability **2023**, 15, 919 18 of 18

55. Ghasemi, A.; Zahediasl, S. Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. *Int. J. Endocrinol. Metab.* **2012**, 10, 486–489. [CrossRef]

- 56. Bulut, O.; Desjardins, C.D. *Profile Analysis of Multivariate Data: A Brief Introduction to the profileR Package*; University of Minnesota: Minneapolis, MN, USA, 2020; pp. 1–16. [CrossRef]
- 57. Ostertagová, E.; Ostertag, O.; Kováč, J. Methodology and Application of the Kruskal-Wallis Test. *Appl. Mech. Mater.* **2014**, *611*, 115–120. [CrossRef]
- 58. Grabowski, B. "p < 0.05" Might Not Mean What You Think: American Statistical Association Clarifies p Values. *Gynecol. Oncol.* **2016**, 108, diw194. [CrossRef]
- 59. Vito, B.; Krisnani, H. Kesenjangan Pendidikan Desa Dan Kota [Rural and Urban Education Gap]. *Pros. Penelit. Dan Pengabdi. Kpd. Masy.* **2015**, 2. [CrossRef]
- 60. Saripudin, S. Faktor-Faktor Yang mempengaruhi Kompetensi Profesional Guru Bidang Kompetensi Keahlian Teknik Instalasi Tenaga Listrik di SMK [Factors Affecting the Professional Competence of Teachers in the Field of Electrical Power Installation Engineering Expertise Competencies in Vocational High Schools]. *Innov. Vocat. Technol. Educ.* 2017, 10, 67–88. [CrossRef]
- 61. Hamidi, E.B.; Chiar, M. Motivasi Guru Bertahan Mengajar di Daerah Terpencil [Teacher's Motivation to Persist in Teaching in Remote Areas]. *J. Pendidik. Dan Pembelajaran Khatulistiwa* **2015**, *4*, 1–12.
- 62. Setiyaningsih, C.D. Status akreditasi dan kualitas sekolah di sekolah dasar negeri [Accreditation Status and School Quality in Public Elementary Schools]. *J. Manaj. Dan Supervisi Pendidik.* **2017**, *1*, 138–145. [CrossRef]
- 63. Sanjaya, N. Pengaruh Kualitas Guru dan Akreditasi Sekolah Terhadap Kepuasan Siswa Pada SMK Buddhi Tangerang [The Effect of Teacher Quality and School Accreditation on Student Satisfaction at SMK Buddhi Tangerang]. Fakultas Bisnis Universitas Buddhi Dharma Tangerang. 2020. Available online: Repositori.buddhidharma.ac.id (accessed on 30 November 2022).
- 64. Mongi, C.E.; Hatidja, D. Perbandingan SMA Negeri Dan SMA Swasta Berdasarkan Nilai Akreditasi dan Nilai Ujian Nasional Menggunakan Uji-T Di Kota Manado [Comparison of Public Senior High Schools and Private High Schools Based on Accreditation Scores and National Examination Scores Using T-Test in Manado City]. J. Ilm. SAINS 2016, 16, 91–97. [CrossRef]
- 65. Rahman, A.S. Tingkat Perbedaan Profesionalitas Guru Sekolah Dasar Negeri Dan Sekolah Dasar Swasta Di Gugus Gajahmada Kecamatan Gajahmungkur [The Level of Professional Difference between Public Elementary School Teachers and Private Elementary Schools in the Gajahmada Cluster, Gajahmungkur District]. Pendidikan Guru Sekolah Dasar Fakultas Ilmu Pen-didikan Universitas Negeri Semarang [Elementary School Teacher Education, Faculty of Education, State University of Se-marang]. 2016. Available online: https://lib.unnes.ac.id/28657/ (accessed on 29 September 2022).
- 66. Kumala, V.M.; Susanto, R.; Susilo, J. Hubungan Pengetahuan Pedagogik Dengan Kompetensi Pedagogik Serta Perbedaannya Di Sekolah Negeri Dan Sekolah Swasta [The Relationship between Pedagogic Knowledge and Pedagogic Competence and the Difference between Public Schools and Private Schools]. Pros. SNIPMD 2018, 1, 1–23.
- 67. Afifah, S.N. Perbandingan Tingkat Literasi Digital Guru SD Negeri dan Guru SD Swasta di Kecamatan Laweyan: Analisis Sequential Explanatory [Comparison of Digital Literacy Levels for Public Elementary School Teachers and Private Elementary School Teachers in Laweyan District: Sequential Explanatory Analysis]; Pendidikan Guru Sekolah Dasar Fakultas Keguruan dan Ilmu Pendidikan UNS: Solo, Indonesia, 2020.
- 68. Munirah. Sistem Pendidikan di Indonesia: Antara Keinginan dan Realita [Education System in Indonesia: Between Desire and Reality]. *J. Auladuna* **2015**, *2*, 233–245.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.