

**THE IMPACT OF TEACHER'S PROFESSIONAL
COMPETENCE ON STUDENT'S PERFORMANCES**

SKRIPSI

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THESIS

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The Impact of Teacher's Professional Competence on Student's Performance

adalah benar-benar karya saya, **kecuali semua kutipan dan referensi yang disebutkan sumbernya**. Apabila terdapat kesalahan dan kekeliruan di dalamnya, maka akan sepenuhnya menjadi tanggungjawab saya. Demikianlah surat pernyataan ini saya buat dengan sesungguhnya.

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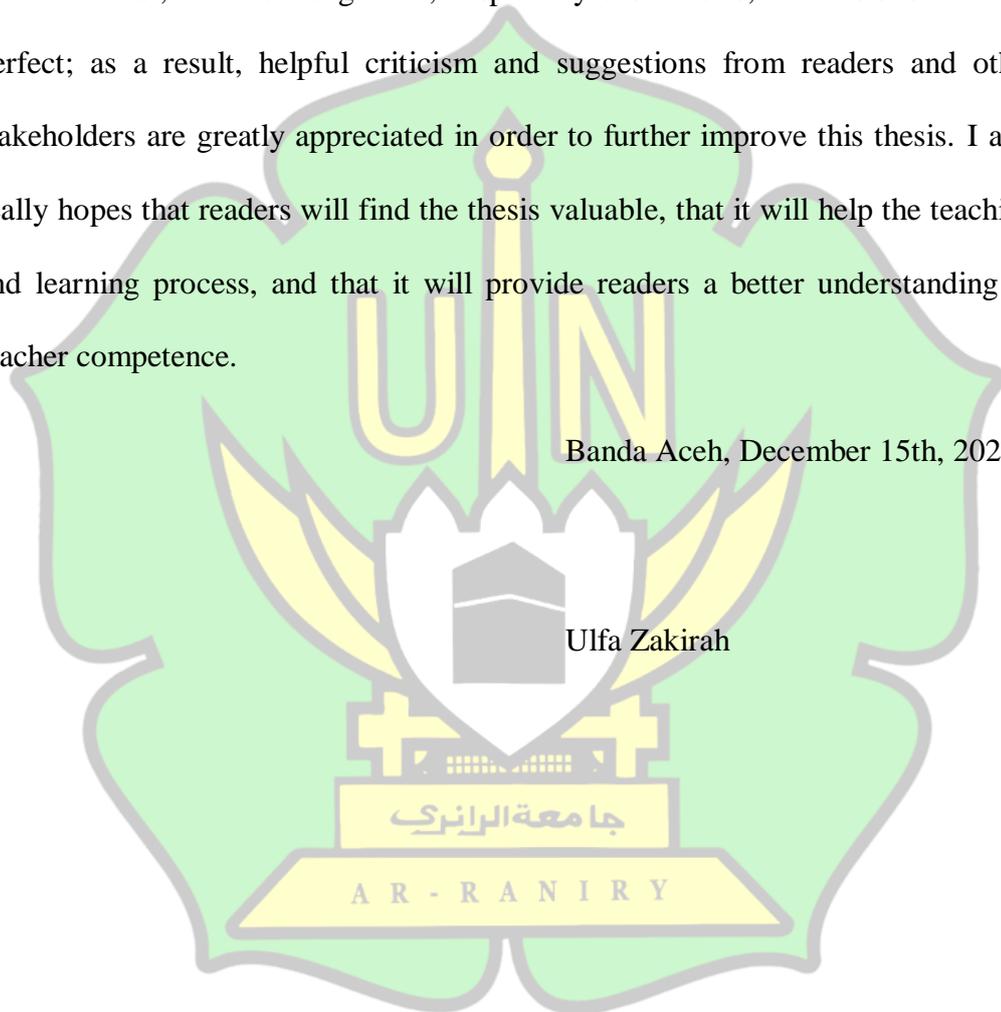
Above all, I want to express my genuine thanks and love for my dear parents, Syukri and Surayani, who have always supported me in my academic endeavors. My sisters Mulia Sari, Nurul Hidayati, and Miftahul Jannah, my younger brother Muhammad Zaki, my brother-in-law Alfi Salmannur, and my nephew Omar Al-farooq and niece Fissilmi Kaffah, who constantly encourage and motivate me to complete my studies, also deserve a special word of appreciation. May Allah grant them blessings in this life and the next.

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Banda Aceh, December 15th, 2022

Ulfa Zakirah



ABSTRACT

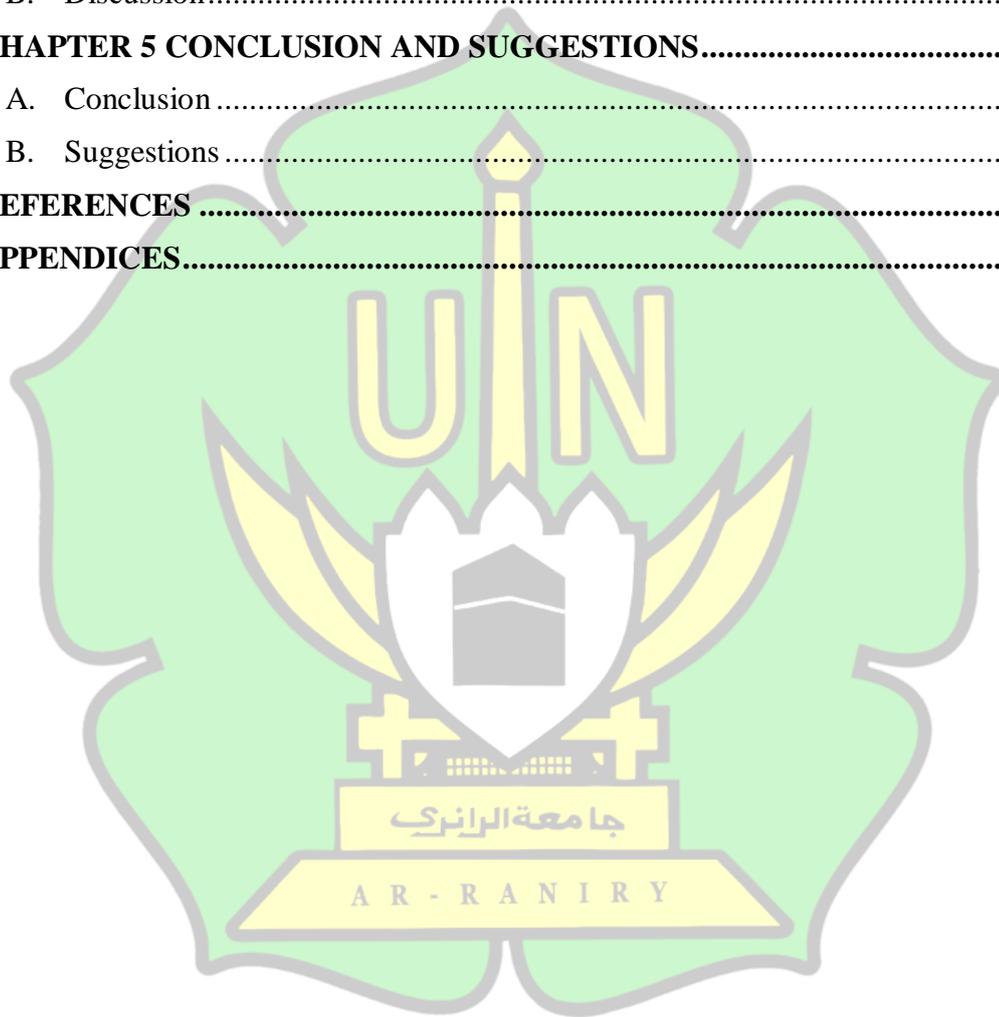
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Keywords : Teacher Professional Competence; Student Performance.

This study aims to find out the teacher's professional competence of SMAN 11 Banda Aceh and does it impact student's performance in the classroom. The study employed quantitative methods, the researcher utilized a questionnaire technique to collect data with 25 questions arranged for second-grade students and documentation technique also used in the study. The results of the study indicates that teacher A has an average score of 63.5063 and teacher B 73,9765, both of which are in good criteria of teacher professional competence. Moreover, the correlation test is done on two sets of data. The result for the set of data of teacher A is 0.2006 which indicates that there is a positive and weak correlation between variables. The result for the set of data of teacher B is 0.1653 which indicates that there is a positive and very weak correlation between variables. This concludes that if we want to assist in the improvement of student performance, we cannot only rely just on the teacher's professional competence but also others elements outside teacher professional competence, such as student attitude, school resources, the role of parents, and many more. The greatest point to make is that teacher's professional competence should be viewed as a tool for improving student's performance.

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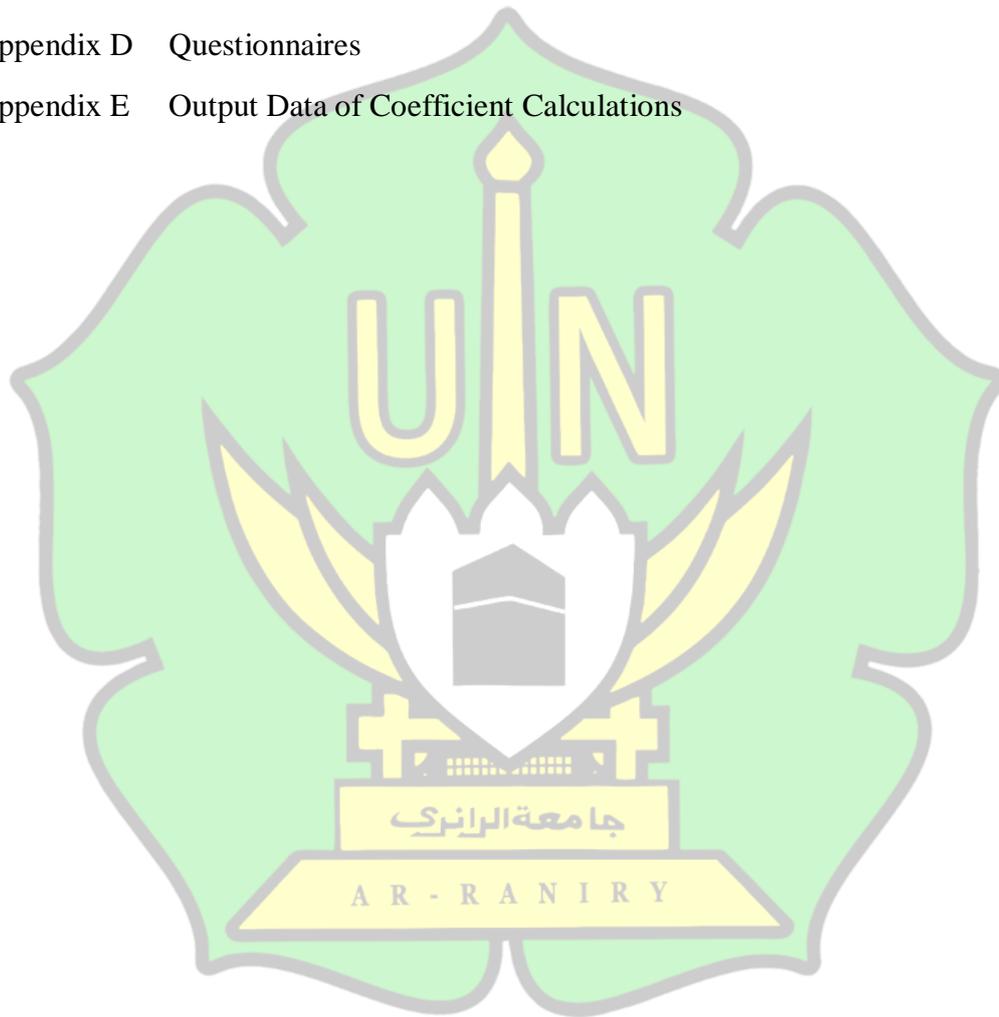
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CHAPTER 1

INTRODUCTION

This chapter describes the background of the study, research questions, research aims, significance of the study, and terminology.

A. Background of Study

As a foreign language in Indonesia, English has become an important language that has been taught since primary and secondary school and is considered as the first foreign language in Indonesia (Dardjowidjojo, 2003). Success in the English teaching-learning process can be seen in the student performance during the class. A good and effective learning activity improves student performance. Student performance is the ability of the student to carry out a task or accomplish a goal. According to Nonis and Wright (2003), performance is a multiplicative function of knowledge and motivation. Further, academic performance is commonly described as how well students perform on tests, assignments, and exams.

The student's performance in class reflects the success of the English teaching-learning process. In several studies, the student's performance is often measured by their GPA from their latest semester. GPA (Grade Point Average) is considered a standard measure of students' academic performance (Kumar et al., 2021). According to Kapur (2018), various factors influence a student's performance, including student attitude, school resources, classroom atmosphere,

teacher skills and abilities, and many more. Teachers have a significant impact on how students do academically. They must be sufficiently competent and do their responsibilities in an organized way. Based on the description above, the researcher focused on one of the factors, the teacher's skills and abilities; this leads to the teacher's competence, particularly in the professional field.

Teacher competencies refer to the skills and knowledge that enable a teacher to be effective. Teacher competencies assist teachers in organizing and improving their performance, instruction delivery, classroom management, and assessment. According to Mulyasa (2009), teacher competency is a set of knowledge, skills, and behaviors teachers or lecturers must acquire, absorb, and master to perform their professional tasks. Competent teachers can successfully carry out their instruction using resources and materializing the teaching process.

According to Indonesia Law number 14 of 2005, a teacher must master four teaching competencies: pedagogical competence, personality competence, professional competence, and social competence. Pedagogical competence refers to the ability of the teacher to regulate the students' learning. Personality competence refers to the capacity to be steady, mature, thoughtful, and a role model for students. Social competencies refer to the capacity of the teacher to communicate and function as member of society in the classroom. Professional competence refers to the skills of a teacher in the teaching-learning process. These competencies cannot be separated since they are interconnected, and a teacher must possess them all to be considered professional.

In this research, the researcher only focuses on teachers' professional competence. Professional competence is the ability to master and profoundly understand the learning material and curricula content. It is stated in Government Regulation number 14 of 2005, chapter 28, article 3 "what is meant by professional competence is the ability to master learning material broadly and deeply, which enables it to guide students to meet the competency standards set out in the National Education Standards." Thus, professional competence refers to a teacher's capacity to master a wide range of learning content in detail and carry out the teaching profession's tasks and responsibilities.

According to Indonesian Government Regulation No. 74 of 2008, verse 7, Professional competency is defined as the teacher's capacity to master knowledge in the disciplines of science, technology, and the arts and culture they have. A professional, competent teacher will have no difficulty guiding students because they can effectively and efficiently solve problems and carry out learning activities based on standards and educational goals. In addition, it will encourage students to participate actively in classroom activities. As a result, students will acquire knowledge more effectively and perform better.

Some researchers have conducted several studies related to the topic (Sunarti & Rummyani, 2018; Khotimah, 2019; Taniredja & Abduh, 2016). Two of the above research examined the effect of teacher professional competency on student learning motivation and outcomes. One examined the relationship between teacher competence and teacher performance. In contrast, this study aims to

examine the impact of teachers' professional competence on student performance. Additionally, the researcher takes different research locations.

It is a known fact that teachers affect the academic performance of a student. For students, to achieve their academic goals and get good results, they need to be taught by teachers whose ability to employ effective teaching-learning processes and instructional methodologies as well as the mastery of knowledge in their fields. In consideration of those mentioned above, the researcher is interested in discovering whether or not teachers' professional competence impacts student performance of the second-grade students of SMAN 11 Banda Aceh. This study is a correlational study to determine the relationship between a teacher's professional competence and student performance and the impacts of a teacher's professional competence on student performance.

B. Research Questions

Based on the background of the study above, the research questions to be carried out are:

1. How is the professional competence of the English teacher of SMAN 11 Banda Aceh?
2. Does the teacher's professional competence impact students' performance of the second-grade student of SMAN 11 Banda Aceh?

C. Research Aims

By following the research question already mentioned above, the aims of the study are:

1. To find out the teacher's professional competence of SMAN 11 Banda Aceh.
2. To discover whether or not teacher's professional competence impacts student performance of the second-grade student of SMAN 11 Banda Aceh.

D. Research Hypotheses

The researcher used null and alternative hypotheses as follows in order to obtain an answer.

Ho: teacher professional competence does not have an impact on student performance of the second-grade student of SMAN 11 Banda Aceh.

Ha: teacher professional competence has an impact on student performance of the second-grade student of SMAN 11 Banda Aceh.

E. Significance of The Study

For teachers and other researchers, this work is highly significant. Teachers will be aware of their duties in educating pupils and enhancing their educational activities by understanding the impact of their professional competence. This research is also expected to benefit other future researchers who are interested in researching this area. Additionally, this research supports theories regarding how teachers' professional competence impacts students.

F. Research Terminologies

To avoid misunderstandings about some crucial terms in this research, the researcher will explain the following terms:

1. Teacher's Professional Competence

Professional competence refers to a teacher's capacity to master a wide range of learning content in detail and to carry out the tasks and responsibilities of the teaching profession with high abilities. In Government Regulation number 14 of 2005, chapter 28, article 3, "what is meant by professional competence is the ability to master learning material broadly and deeply which enables it to guide students to meet the competency standards set out in the National Education Standards."

In this study, the term "teacher professional competence" relates to the qualification and skills of SMAN 11 Banda Aceh English teachers, as specified in Indonesia Law No. 14 of 2005, the Law on Teachers and Lecturers, chapter 4.

2. Student Performance

A student's academic performance is the knowledge acquired that is evaluated by a teacher using marks and the attainment of learning goals set by students and teachers over a predetermined period (Narad & Abdulla, 2016). In this study, "student performance" relates to how well the second-grade SMAN 11 Banda Aceh students perform and meet the learning objectives in the English classroom as measured in the student's GPA from their latest semester.

CHAPTER 2

LITERATURE REVIEW

This chapter discusses several points related to the key terms and previous studies on teachers' professional competence impacts students' performance.

A. Teacher's Professional Competence

1. Understanding Teacher Competence

Teacher competencies assist teachers in organizing and improving their performance, instruction delivery, classroom management, and assessment. Daryanto (2013) stated that competence is a set of skills that instructors need to possess to meet community demands, educational needs in schools (curriculum), and scientific and technological developments. Under Indonesia Law No. 14 of 2005, chapter 4, article 8, "teacher/lecturer must hold an academic qualification, competence, certified, physically and mentally healthy, and able to achieve the national education goals."

Mulyasa (2009) states that teacher competence is the capacity and authority of teachers to perform their duties as educators. Meanwhile, Suprihatiningrum (2014) explains that teacher competence is the outcome of diverse abilities, such as a set of information, skills, and behaviors that teachers or lecturers must master to perform their professional responsibilities. According to Indonesia Law number 14 of 2005, a teacher must master four teaching competencies: pedagogical competence, personality competence, professional competence, and social

competence. These competencies cannot be separated since they are interconnected, and a teacher must possess them all to be considered professional.

Pedagogical competence refers to the ability of the teacher to regulate the students' learning. Pedagogical competence includes understanding learners, instructional design and execution, evaluation of learning outcomes, and development of learners to reach their full potential (Mulyasa, 2009). Republic Indonesia Government Regulation No. 74 of 2008, verse 4 defines pedagogic competence as the capacity to supervise the students, which includes:

- a. Understanding knowledge or academic background
- b. Thoughtful of students
- c. Curriculum/syllabus development
- d. Lesson preparation
- e. Educational and dialogic learning implementation
- f. Assessment of learning outcomes
- g. Educating students to realize their diverse potential

Personality competence refers to the capacity to be steady, mature, thoughtful, and a role model for students. According to government regulation No. 19 of 2005, personal competence encompasses personal stability, maturity, wisdom, authority, and example. In addition, personality competency is defined by Republic of Indonesia Government Regulation No. 74 of 2008 verse 5 as the following personality abilities:

- a. Be noble
- b. Constant, mature, and steady; sensible and careful

- c. Be a role model
- d. Personal evaluation of performance
- e. Self-growth
- f. Religious

Social competencies refer to the capacity of the teacher to communicate and function as a member of society in the classroom. According to Government Regulation No. 19 of 2005, social competence involves the capacity to interact and get along with others in school and society. Furthermore, Republic of Indonesia Government Regulation No. 74 of 2008, verse 6 explains that social competence is the ability of teachers as part of society, which at least includes:

- a. Oral and written communication skills
- b. Functional use of communication and information technologies
- c. Effectively interact with students, fellow teachers, education staff, and student's parents/guardians.
- d. Maintaining positive relations with the surrounding community

Professional competence refers to the skills of a teacher in the teaching-learning process. Febriana (2021) stated that professional competence is the ability of teachers to acquire extensive and in-depth knowledge of learning materials, enabling them to assist students in acquiring such knowledge. In addition, Republic of Indonesia Government Regulation No. 74 of 2008, verse 6 explains that professional competence is the capacity of a teacher to master knowledge in the fields of science, technology, and arts and culture, which must at least mastery:

- a. The subject matter in depth and according to the requirements of the contents of the education unit program, subjects, and subject groupings.
- b. The concepts and techniques of scientific discipline, technology, or art are pertinent, conceptually coordinating, or consistent with the education unit program, subjects, and subject groups to be supported.

In this study, the researcher studies only one teacher competence directly related to classroom teaching and the learning process: professional competence. This competency is defined by the growth and continual development of academic qualifications and competence in tandem with the advancement of science and technology.

2. Definition of Teacher Professional Competence

Professional competence refers to a teacher's capacity to master a wide range of learning content in detail and to carry out the tasks and responsibilities of the teaching profession with high abilities. Usman (2000) stated that a teacher's professional competence outlines the qualities a person in charge of the role of a teacher must possess. For teachers, professional competence is a must-have skill. They should develop themselves and keep up with all of the materials that will be taught later in the classroom. In Government Regulation number 14 of 2005, chapter 28, article 3, "what is meant by professional competence is the ability to master learning material broadly and deeply which enables it to guide students to meet the competency standards set out in the National Education Standards."

As described in the previous sub-chapter, professional competence is one of the competencies that teachers must possess in carrying out their professional teaching duties. Permendiknas No 16 of 2007, professional competency standards are translated into five core competencies, namely:

- a. Mastering the material, structure, concept, and scientific mindsets that underlie the topics being taught.
- b. Mastering competency standards and essential competencies in the topics or developmental areas taught.
- c. Create learning resources that can be taught on their own.
- d. Take reflective acts that help to sustainably develop professionalism.
- e. Use information and communication technology to communicate and develop themselves (Payong, 2011).

According to Selvi (2010), the main features/components of teacher professional competencies are:

- a. Field competencies

Field competencies are the primary areas of teacher competencies, which comprise content-related academic studies (Selvi, 2010). Field skills were regarded as an essential competency based on the notion that teachers were solely responsible for transferring material.

b. Research competencies

The research component enables the acquisition of not just the fundamental knowledge and skills of future professionals but also the expertise required for the creative activity inherent in research (Yarmatov & Ahmedova, 2020). Teachers' research competencies influence their ability to track developments in their domains and improve themselves in response to these developments.

c. Curriculum competencies

According to Lengkanawati (2015), the competence of the teachers as well as their familiarity with the curriculum being implemented are necessary supporting variables for curriculum implementation. Nonetheless, Curriculum competencies are linked to the comprehension of curriculum designs for teaching and learning.

d. Lifelong learning competencies

The competence of lifelong learning refers to the ability to learn and utilize the methods or tools of learning to enhance learning throughout a human's life. Lifelong learners are driven to study by their enduring curiosity, demonstrating this drive by taking responsibility for their education (Cotton, 1998). Lifelong learning competencies relate to the responsibilities of teachers for their learning and the development of lifelong learning abilities in their students.

e. Emotional competencies

Emotional competencies related to the implementation of psychological consultation and counseling curriculum. Emotional support incorporates the teacher's thoughts, the classroom environment, and classroom management (Sultan & Shafi, 2014). Moreover, the emotional abilities of teachers will help students learn and boost their enthusiasm to study.

f. Social-Cultural competencies

Teaching students from different cultures effectively is crucial to cultural competence (Moore, 2021). Socio-cultural competencies include understanding the social-cultural background of students and teachers, local, national, and worldwide values, democracy and human rights concerns, team and collaborative work, and social studies.

g. Communication competencies

The ability to adapt the message to the interaction and the situation is referred to as communication competency, and feedback is used as information regarding the successful adaptation (Bakic-Tomic, 2015). Communication competencies include voice, body language, and words, such as speaking, singing, and occasionally tone of voice, sign language, paralanguage, touch, eye contact, and the use of writing.

h. Information and Communication Technologies (ICT) competencies

Developing a broader range of competencies must be linked with acquiring technical knowledge and abilities (Lawrence & Veena, 2013). ICT competencies relate to using technology to manage and process

information and encompass all methods for manipulating, transmitting, and transferring knowledge.

i. Environmental competencies

Environmental competencies can be defined as knowledge, attitudes, and skills regarding ecological systems (Selvi, 2010). Environmental competence include maintaining a clean and accessible environment, managing ecological resources, being aware of the ecosystem, and using natural resources practically.

According to Mulyasa (2009), in general, the context of professional competence consists of the following:

- a. Comprehend and capable of applying the educational foundations. A professional teacher must possess a thorough understanding of educational foundations. The educational foundations include philosophical, psychological, and sociological (Mulyasa, 2009).
- b. Comprehend and capable of applying the theory of learning according to the learners' level. Mulyasa (2009) concludes that understanding the competency standards and essential competencies, developing the syllabus, preparing the lesson plan (RPP), implementing the learning and competency building of learners, assessing the learning outcomes, assessing and enhancing the KTSP following the advancement of science, technology, and social development.
- c. Competent in managing and advancing the responsibility of research in his study field. According to Priatna & Sukamto (2013), teachers

advance their responsibility for research by conducting research, developing innovative works, participating in scientific activities (e.g., seminars and conferences), and actively carrying out the Professional Development Sustainable program.

- d. Comprehend and use diverse learning techniques. Professional teachers must have a thorough understanding of classroom and non-classroom teaching and learning scenarios (Fitriani et al, 2017) and be capable of selecting the most appropriate ones for the circumstance.
- e. Capable of developing and utilizing appropriate tools, media, and learning resources. In order to accomplish the educational goal in the teaching-learning process of English, the role of the media is crucial (Tanggoro, 2015). The teacher has to match the learning resources with the content being taught.
- f. Capable of planning and executing the learning program. It includes managing the formulation of the objectives, the description of basic competencies, selecting and using learning techniques, and implementing learning (Mulyasa, 2009).
- g. Capable of conducting evaluations. It's crucial for teachers to have the ability to do evaluations. When it comes to evaluation, a teacher is considered competent if she is able to conduct assessments using techniques and procedures that will yield data that will be used to enhance teaching and learning (Riadi, 2018).

- h. Capable of enhancing the learner's character. Performing excellent behavior in learning can demonstrate exemplary behavior for students. It will cultivate a disciplined learning mindset to the students (Mulyasa, 2009).

Based on the description above, we can conclude that professional competence is one of the competencies teachers must possess in carrying out their professional teaching duties. The context of teacher professional competence has been translated by the experts and also the government regulation. Nevertheless, teachers' professional competence has been thoroughly studied in this study field.

3. Indicators of Teacher Professional Competence

Republic of Indonesia Government Regulation No. 74 of 2008, verse 6 explains that professional competence is the capacity of a teacher to master knowledge in the fields of science, technology, and arts and culture, which must at least mastery:

- a. The subject matter in depth and according to the requirements of the contents of the education unit program, subjects, and subject groupings to be supported
 1. Capability to plan teaching and learning programs. It is evident from the teacher's attempt to describe the daily objectives before the teaching and learning process, to create lesson plans for each process of teaching and learning, and to explain the knowledge and skills students must acquire.

2. Mastery of topic knowledge. The teacher should be capable of adequately explaining the subject matter, using clear language to address any concerns from students, and practicing the content acquired so that it is simple to understand.
- b. The concepts and techniques of scientific discipline, technology, or art that are pertinent, conceptually coordinating, or consistent with the education unit program, subjects, and subject groups to be supported
1. It has integrated the teaching and learning process. The teachers employ various techniques, tools, and media in the classroom to improve student motivation and control the classroom environment by encouraging students to discuss.
 2. Assess the teaching and learning process's development. Teachers evaluate their students' progress during the teaching and learning process by assigning questions and tasks towards the end of the learning process and providing students with assessment results so they can track their learning progress (Khotimah, 2019).

In those relevant studies, Khotimah (2019) employed concept derived from Indonesian Government Regulation No 74 of 2008 to investigate the relationship between professional competences and student learning intensity toward student learning outcomes. Murti (2018) researched the effects of teacher professional competency and teaching style on student motivation using Mulyasa's theory of professional competence. Sunarti and Rumyani (2018) used Usman's idea of professional competence to examine how learning facilities and teacher competence

affect students' motivation to learn. In his research, Arifin (2020) consulted Indonesia Law No. 14 of 2005, and Ekawati (2017) consulted Permendiknas No. 16 of 2007.

In this research, the researcher employed concept derived from Indonesian Government Regulation No. 74 of 2008 to discover whether or not teacher's professional competence impacts student performance. The theory offered is defined excellently and has been used in some prior related research.

B. Student Performance

1. Definition of Student Performance

Student performance is the ability of the student to carry out a task or achieve a goal. According to Nonis and Wright (2003), performance is a multiplicative function of ability and motivation. As a result, there are significant differences in student performance among individuals in the same classroom. Students' performance is usually determined by class participation, individually written works, exams, group projects, and group presentations.

Academic performance is the knowledge acquired that is evaluated by a teacher using marks and the attainment of learning goals set by students and teachers over a predetermined period. The goals are evaluated through tests or continuing assessments (Narad & Abdulla, 2016). Teachers' preferred delivery and communication methods appears to be related to student performance (Gilbert, 2018). Based on the discussion above, student performance is the capability of students to perform and achieve learning goals.

In several studies, the student's performance is often measured by their GPA from their latest semester. GPA (Grade Point Average) is considered a standard measure of students' academic performance (Kumar et al., 2021). In the same way that learning motivation interacts with the ability to impact academic performance, teacher competencies, specifically teacher professional competence, interact with the ability to impact student performance.

2. Factors Influencing Student Performance

There are two categories of factors that impact students' performance, factors from the student's and the teacher's sides.

a. Student's Side

According to Kapur (2018), the following factors influence student performance:

1. Attitude of Students

Students frequently have positive feelings about their school experiences, enabling them to devote themselves to learning and producing good results (Maina, 2010).

2. School Resources

It is critical to provide school resources that can be used to improve kids' academic achievement (Kapur, 2018). For example, students will gain a better knowledge of academic topics and how to conduct experiments if given the proper tools and equipment.

3. Leadership Aspects

The principal and other school officials have the primary authority to make decisions that are vital in affecting students' academic performance. Therefore, there will be an improvement in students' academic performance when applicable regulations, procedures, and administration are implemented in an acceptable manner (Maina, 2010).

4. Classroom Environment

Students would learn better and enhance their academic achievement if the classroom setting was disciplined and well-organized. Welberg (1982) identified that the classroom environment and home environment affect the quality of academic performance along with seven other factors based on affective, cognitive, and behavioral skills.

5. Role of Parents

Home is referred to as the place where the basis of learning and education takes. Therefore, it is critical for parents and other family members to create a learning environment in their homes in order to achieve strong academic results. Alabdulkarem (2021) reported that students' paternal education level and work field were significantly related to the reported academic performance in Saudi Arabia.

6. Social Circle

Friendships and the formation of a social circle have a positive impact on students' academic results. It also contributes to social pleasure and happiness in students' lives. This social support is essential to helping students achieve their academic goals (Goddard, 2003).

7. Psychological and Health-Related Factors

To improve learning, students must demonstrate diligence, resourcefulness, and conscientiousness. In addition, students must maintain their psychological and physical health to achieve great academic success. According to Ruppel et al. (2015), both positive and negative impacts on academic success can be attributed to subjective well-being.

8. Motivating and Encouraging Students

When students encounter obstacles and difficulties, they must seek help from others. The teacher should inspire students and encourage them to succeed in the future. When students struggle with a particular subject, teachers should reinforce the concepts and give them homework and class projects so that they may fully understand the subject (Srinivas & Venkatkrishnan, 2016).

9. Visual and Hearing Impairments

Visual impairment typically causes difficulties with handwriting and viewing blackboards. It limits the students' communication capacity,

negatively affecting their academic achievement (Srinivas & Venkatkrishnan, 2016).

10. Counseling and Guidance Services

Establishing counseling and guidance services in schools can help students cope with their concerns and concentrate on schoolwork, which will directly affect their academic success and lifestyles. Counseling and guidance services must be made available in schools to help students deal with their problems, focus on their studies, and develop into responsible members of the community (Maganga, 2016).

11. Development of Study Skills

To create desired academic outcomes, it is up to the students to develop an awareness of study abilities such as memorizing materials, making notes, practicing essay writing, and many more. One of the crucial aspects is that studying requires an entire focus; failure to do so will result in unfavorable academic results. (Kapur, 2018).

12. Time Management

The students must maintain a balance between all of the assignments and activities (Kapur, 2018). The more critical activities should be given more time, while the less essential activities should be given less time.

13. Home Environment

Within the house, among family members, it is necessary to establish practical terms and relationships to achieve an enjoyable

atmosphere and the optimal performance of the student. To concentrate on their studies and achieve the desired academic results, students need access to the necessary materials and a welcoming environment at home (Kapur, 2018).

Finally, it is inevitable that students must be committed and serious about their work to succeed academically, and both the home and classroom environments must be peaceful and welcoming.

b. Teacher's Side

Kapur (2018) also argued the factors influencing student performance from the teacher aspect.

1. Skills and Abilities of Teacher

Teachers play a critical influence in affecting students' academic performance. Therefore, professionalism and emotional stability are essential characteristics for teachers. In addition, they should have a sufficient understanding of the subjects they are teaching, as well as innovative teaching methods and functions in a well-organized manner. The entire focus of the teachers should be on improving the students' Academic achievement and fostering their successful growth (Maina, 2010).

2. Teaching-Learning Methods

The techniques and methods for teaching and learning should be suitable and motivating for the students. It is crucial to remember that a

competent teacher should be knowledgeable in both content and pedagogy, employing the appropriate methods and strategies used to teach the subject matter (Okwuduba & Okigbo 2018).

3. Approachability and Professionalism

Teachers' professionalism and approachability are of the highest importance when positively impacting their students' academic success (Kapur, 2018). Implementing teaching should be done in a relaxed and enjoyable way. Avoid adopting a harsh attitude of any type because it could discourage the students.

Finally, it is undeniable that for students to succeed academically, teachers must have a friendly attitude and employ effective teaching-learning processes and instructional methodologies.

C. Relevant Study

Some researchers have conducted several studies related to the topic. For example, Sunarti and Rumyani (2018) studied The effects of teacher professional competence and learning facility on students' learning motivation of the eighth-grade students of national junior high school 3 kuningan. This study determines the impact of teacher professional competence and learning facility on students learning motivation. The research uses the survey method using the Likert scale option spread to 174 respondents. According to the researchers, teachers' professional competence and learning facilities should be improved to raise students' learning motivation. The result significantly shows an effect of teacher professional competence and learning facility on learning motivation. As a result,

teachers should master the learning material, improve the appealing learning method, and create a pleasant learning environment. Furthermore, students should expand their reading so that they may use their abilities rather than rely on others' opinions.

Khotimah (2019) researched the professional competencies under The effect of teacher professional competency and student learning intensity toward student learning outcomes on social science subject of the eighth grade student of SMP negeri 2 Peterongan. The participants of this study are 55 students out of 221 populations of eighth-grade students of SMP Negeri 2 Peterongan, Jombang. The techniques used in this study are a questionnaire and documentation techniques. This study indicated that teacher professional competency and students learning intensity have an effect on student learning outcomes in social science subjects for the eighth-grade student of SMP Negeri 2 Peterongan.

Murti (2018) conducted a study titled The influence of teachers professional competence and teaching style toward student motivation on the subject of social science at state junior high school 1 Kesamben Blitar. The participants of this study are 80 students out of the 320 population. The data was gained from the interview, observation, and questionnaire techniques. This study indicated that professional competence and teaching style simultaneously influence student motivation, explaining that 31,2% of student motivation is influenced by teaching style factors, and other factors influence 68,8%.

Prasetio et al. (2017) researched Lecturers' professional competency and students' academic performance in Indonesia's higher education. This research studied the relationship between the professional competency of lecturers and the academic performance of students in higher education. The research was conducted using the questionnaires as data collection, spread to 168 students from the School of Economics and Business, Telkom University, as participants. The findings indicate that professional competency has no significant relationship with students' academic performance.

Research by Ugbe and Agim (2009) under the title Influence of teacher's competence on students' academic performance in senior secondary school chemistry, studied the impact of instructors' expertise on students' academic achievement in chemistry at the senior high school level. This survey research has up to 200 students, 20 instructors, and 6 principals from 12 secondary schools in Yala Local Government Area, Nigeria. The study found that chemistry teachers' competence and their students' academic success are closely related. Furthermore, the performance of chemistry students taught by qualified teachers is much higher than that of unqualified teachers.

Research by Taniredja and Abduh (2016) under the title Pedagogical, personality, social and professional competence in correlation with teachers' performance (correlational study of junior high school teacher at SMPN 3 Purwokerto). It was aimed to determine the impacts of each professional competence (pedagogical, personal, professional, and social competency) on teachers' performance at SMP Negeri 3 Purwokerto Junior School and which is the

most relevant factor among them. The sample of this study is the teacher population of SMP Negeri 3 Purwokerto Junior High School consisting of 39 teachers. A questionnaire technique was used to collect the data. The result showed significant pedagogical, personal, professional, and social influences on teachers' performance at SMP Negeri 3 Purwokerto Junior High School. Furthermore, among all competencies, social competence was the most influencing factor in teachers' performance at SMP Negeri 3 Purwokerto Junior High School.

Research by Rahayu (2014) under the title *Pengaruh kompetensi profesional guru terhadap disiplin kerja guru SDN di gugus Subroto kecamatan Kutasari kabupaten Purbalingga*, was aimed to find out the influence of professional competence on the work discipline of teachers in state elementary schools throughout the Gatot Subroto cluster, Kutasari district, Purbalingga regency. This study uses a quantitative approach to the type of correlational research. The population of the study was the 56 teachers of the State Elementary Schools in the Gatot Subroto Cluster. The data collection technique used a rating scale questionnaire. This study indicated that there is a positive relationship between professional competence and work discipline, and there is an influence of professional competence on the work discipline of teachers in State Elementary Schools throughout the Gatot Subroto Cluster by 45.2%.

Some of the above researches explore the effect of teacher competence and professional competence on students, while others focus on the teacher. Those relevant studies have been conducted to examine the effect of teacher professional competence on student learning motivation in a senior high school, student

achievement, student learning outcomes in a junior high school, student academic performance in higher education, and lastly, the effect of all the aspects of teacher competence in a senior high school. Aside from that, earlier research examined the effect of teacher professional competence on teacher performance in junior high school and teacher work discipline in an elementary school. In contrast, this study aims to examine the impact of teachers' professional competence on student performance. Additionally, the researcher takes different research locations. This research was conducted at SMAN 11 Banda Aceh.



CHAPTER 3

RESEARCH METHODOLOGY

This chapter outlines certain aspects of methodology including research design, research participants, method of data collection, and method of data analysis.

A. Research Design

The research approach used in this research is a quantitative method. Quantitative research used precise measuring techniques on specific variables to get generalizable results. According to Creswell (2013), quantitative methods focus on precisely measuring (or experimentally altering) several variables to answer theory-driven research questions and hypotheses. The researcher used a quantitative approach because quantitative research tries to establish facts and test hypotheses that have already been stated. It aims to find evidence that either confirms or refuses an established hypothesis.

The type of research used is a correlational study. Creswell (2013) argues that the correlational research seeks a consistent tendency or pattern between two (or more) variables of two sets of data using a statistical test. The two sets of data used in this study are those regards to student performance and teacher professional competence. The data were collected by using questionnaires and documents, while the data analysis technique used is simple linear regression analysis.

B. Research Participants

1. Population

Population, as defined by Griffiee (2012), is a list of potential responders or the working population from the sampling frame. The population in this study were second-grade students from SMAN 11 Banda Aceh. Based on the academic year 2022/2023, SMAN 11 Banda Aceh's total number of students are 580 and the number of second-grade students are 195.

2. Sample

According to Arikunto (2010), the sample is a part or representative of the study. This study used a purposive sampling method. According to Sugiyono (2018), the purposive sampling technique is a way of identifying the sample with specific considerations. The participant's criteria for this research are the second-grade students in the school. 115 students from 4 classes became the participants of this study. These 4 classes were taught by 2 teachers, and each teacher teaches two classes.

C. Method of Data Collection

In data collection, researcher used questionnaires and documentation. Questionnaires are widely used as data collection tools in various sectors, including communication, education, psychology, and sociology (Griffiee, 2012). The type of questionnaire is a closed-ended with a Likert Scale model of the questionnaire. According to Djaali (2008, p. 28), the Likert Scale can be used to assess a person's or a group's attitude, opinion, frequency, and perception of the phenomenon of

educat'on. The students are given a questionnaire containing 25 questions related to the teacher's professional competence. The students select the alternative answer to express their opinions regarding the teacher's level of professional competence.

The researcher employed the concept from Indonesian Government Regulation No. 74 of 2008 and adopted an instrument from the Khotimah study (2019). The researcher chose the instrument because it appeared reliable and related to the variable being studied in this study. It is preferable to adopt an instrument rather than to adapt it since, when we adapt an instrument, its reliability and validity may change and need to be rechecked.

Additionally, the researcher used document techniques as a collecting data method. A document is a potential data source that was probably created and compiled by the institution where the case is located. Email, syllabi, reports, letters, calendars, timetables, textbooks, newspapers, and meeting minutes are a few examples (Griffie, 2012). Documentation technique is employed to determine student performance based on the English midterm exam results.

D. Method of Data Analysis

Data analysis techniques in quantitative research use statistics. Activities in data analysis are grouping data based on variables and respondents, tabulating data based on variables from all respondents, presenting data for each variable studied, performing calculations to answer problem formulations, and performing analyses to test proposed hypotheses (Sugiyono, 2018). Following the hypotheses and the goal of this study, which is to determine the influence of the independent variable

on the dependent variable, the data acquired in this study were analyzed using statistical descriptive analysis and correlation test.

Descriptive statistical analysis is used to analyze data by describing or characterizing the data that has been acquired to draw commonly accepted conclusions (Sugiyono, 2018). Descriptive data of the teacher's professional competence variable is obtained through two steps, that is finding the highest score and lowest score and finding the mean value.

So, the following criteria are used to provide an interpretation of the level of teachers' professional competence for this study:

Table 3.1
The level of teacher's professional competence

| Interval Class | Criteria |
|----------------|------------|
| 80 – 100 | Very good |
| 60 – 79 | Good |
| 40 – 59 | Enough |
| 20 – 39 | Not Enough |
| 0 – 19 | Very less |

Moreover, the following criteria are used to provide an interpretation of the level of student performance for this study:

Table 3.2
The level of student performance

| Interval Class | Criteria |
|----------------|-----------|
| 80 – 100 | Very good |
| 60 – 79 | Good |
| 40 – 59 | Medium |
| 20 – 39 | Low |
| 0 – 19 | Very low |

Before that, the research questionnaire's contents are tested to ensure their validity and reliability. The validity test is used to evaluate the validity of the questionnaire while the reliability test determines whether the questionnaire will remain consistent when it is used repeatedly for measurement.

Hypothesis testing is then carried out using correlation coefficient analysis. Correlation coefficient analysis is used to determine the relationship between variable X and variable Y.

$$\rho_{XY} = \frac{1}{N} \sum I \frac{(x_i - \mu_X)(y_i - \mu_Y)}{\sigma_X \sigma_Y}$$

Information:

ρ_{XY} = the index number correlation coefficient

σ_X and σ_Y = standar deviations

μ_x and μ_y = mean

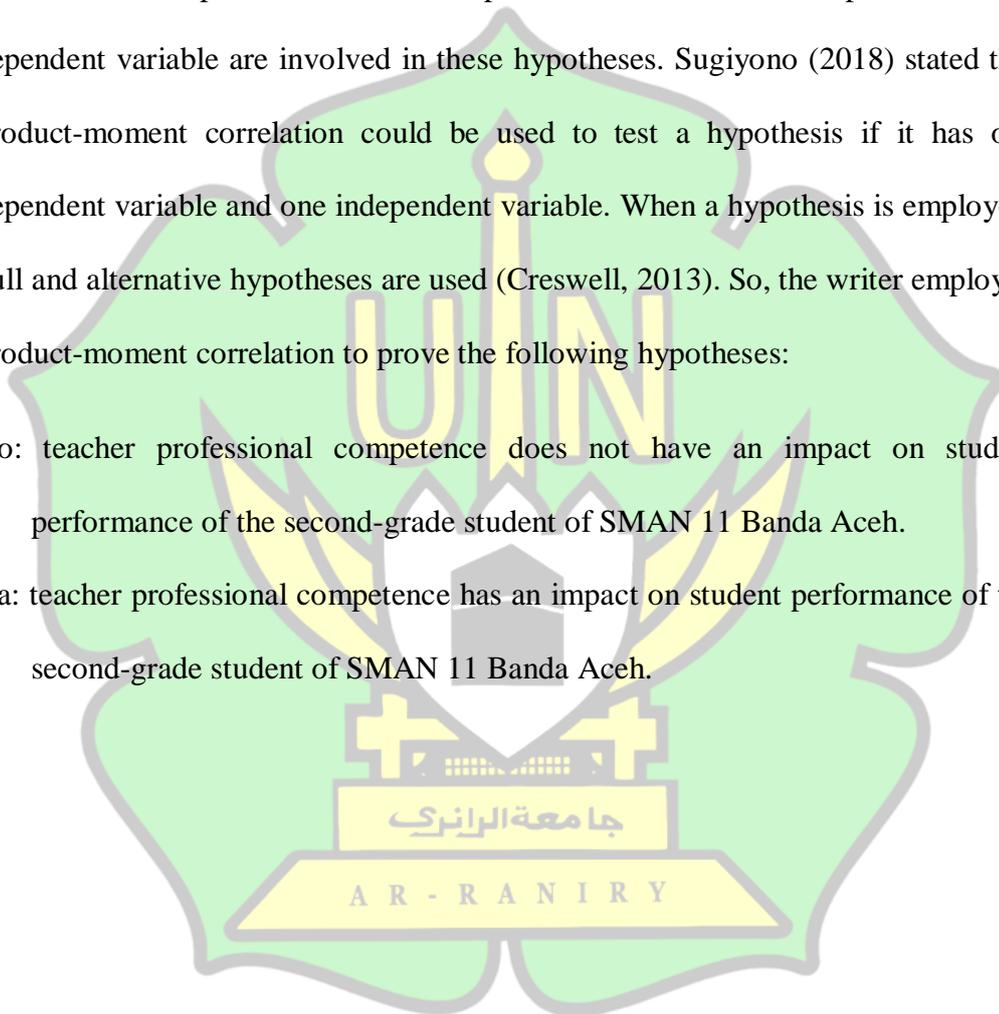
N= the number of pairs score of x and y score (many subjects)

E. Statistical Hypotheses

A hypothesis is a prediction made by the researcher regarding the expected result of relationships between variables. The purpose of the hypothesis testing in this study was to determine whether or not there was an impact of teachers' professional competence on students' performance. Both an independent and a dependent variable are involved in these hypotheses. Sugiyono (2018) stated that product-moment correlation could be used to test a hypothesis if it has one dependent variable and one independent variable. When a hypothesis is employed, null and alternative hypotheses are used (Creswell, 2013). So, the writer employed product-moment correlation to prove the following hypotheses:

Ho: teacher professional competence does not have an impact on student performance of the second-grade student of SMAN 11 Banda Aceh.

Ha: teacher professional competence has an impact on student performance of the second-grade student of SMAN 11 Banda Aceh.



CHAPTER 4

FINDINGS AND DISCUSSION

This chapter provides an overview of the study's findings and presents a discussion of the research findings to answer the research questions.

A. Data Findings

To answer the first research question, the data is defined and processed using descriptive statistical techniques compiled into a frequency distribution table. Furthermore, to analyze the data to answer the second research question, Pearson Correlation Method (product-moment correlation) was used to investigate the correlation between teachers' professional competence and students' performance. This section goes into detail about the entire process of data analysis.

1. The Result of The Teacher's Professional Competence

The data description of the teacher's professional competence variable was used to answer the first research question. It can be addressed by analyzing the data separately because there are two English teachers whose levels of teacher professional competence are being assessed. As their teacher professional competence is measured and studied independently, the two English teachers are coded with teacher A and B.

Teacher professional competence data for teacher A was obtained from questionnaires filled out by 64 students while teacher B professional competence data was obtained from questionnaires filled out by 51 students. The findings of the

teacher professional competence data processing for teacher A and teacher B are shown below.

Table 4.1

Table of frequency of teacher A's professional competence

| No | Name | Score | No | Name | Score |
|----|------|-------|----|------|-------|
| 1 | AR | 56 | 33 | AH | 64,8 |
| 2 | AP | 55,2 | 34 | ANA | 67,2 |
| 3 | BS | 70 | 35 | ABF | 64 |
| 4 | CKJ | 71,2 | 36 | AM | 51,2 |
| 5 | CZT | 59,2 | 37 | AN | 64 |
| 6 | DNH | 58,4 | 38 | AS | 57,6 |
| 7 | DA | 74,4 | 39 | DPS | 55,2 |
| 8 | FA | 77,6 | 40 | DF | 62,4 |
| 9 | FM | 74,4 | 41 | HA | 51,2 |
| 10 | GA | 67,2 | 42 | II | 71,2 |
| 11 | IRP | 60 | 43 | ISH | 50,4 |
| 12 | MRH | 85,6 | 44 | JW | 50,4 |
| 13 | NA | 53,6 | 45 | KN | 44,8 |
| 14 | NS | 66,4 | 46 | MH | 55,2 |
| 15 | NY | 44 | 47 | MJ | 55,2 |
| 16 | NFZ | 53,6 | 48 | MA | 65,6 |
| 17 | NN | 73,6 | 49 | MM | 53,6 |
| 18 | OBR | 63,2 | 50 | NUB | 78,4 |
| 19 | RZ | 60 | 51 | NF | 60,8 |
| 20 | RB | 77,6 | 52 | NA | 62,4 |
| 21 | RBA | 66,4 | 53 | NS | 61,6 |
| 22 | SN | 68 | 54 | PBA | 60 |
| 23 | SEA | 57,6 | 55 | RNB | 69,6 |
| 24 | SR | 59,2 | 56 | RS | 67,2 |
| 25 | SM | 60 | 57 | RTS | 67,2 |
| 26 | SHA | 61,6 | 58 | SA | 65,6 |
| 27 | SBR | 84 | 59 | SA | 72 |
| 28 | SNA | 58,4 | 60 | SDM | 72 |
| 29 | SA | 56 | 61 | SNS | 73,6 |
| 30 | SNA | 77,6 | 62 | SA | 48,8 |
| 31 | UR | 64,8 | 63 | SN | 68 |
| 32 | VA | 72 | 64 | VN | 66,4 |

Based on the table above, the mean value was identified by using formula:

$$\mu X = \frac{\sum X_i}{n}$$

$$\mu X = \frac{4064.4}{64}$$

$$\mu X = 63.5063$$

In the teacher professional competence of teacher A, it is found that the average score was 63,5063.

Table 4.2

Table of frequency of teacher B's professional competence

| No | Name | Score | No | Name | Score |
|----|------|-------|----|------|-------|
| 1 | AL | 65,6 | 27 | FN | 52,8 |
| 2 | DA | 72,8 | 28 | FC | 72 |
| 3 | HA | 81,6 | 29 | KM | 65,6 |
| 4 | IAD | 77,6 | 30 | KM | 72 |
| 5 | MFA | 63,2 | 31 | MAH | 68 |
| 6 | MRM | 84 | 32 | MA | 72,8 |
| 7 | MST | 89,6 | 33 | MIF | 72,8 |
| 8 | MAF | 82,4 | 34 | MZ | 67,2 |
| 9 | MH | 79,2 | 35 | MI | 72 |
| 10 | MK | 63,2 | 36 | MIA | 66,4 |
| 11 | MRS | 81,6 | 37 | MAR | 89,6 |
| 12 | MR | 60 | 38 | MAI | 70,4 |
| 13 | MRI | 68 | 39 | MDP | 71,2 |
| 14 | MSA | 68,8 | 40 | MFA | 66,4 |
| 15 | MZA | 80 | 41 | MR | 76 |
| 16 | PA | 76 | 42 | MRE | 72 |
| 17 | RQ | 63,2 | 43 | MRA | 76,8 |
| 18 | RFR | 95,2 | 44 | MS | 83,2 |
| 19 | SH | 66,4 | 45 | MU | 80 |
| 20 | SRS | 75,2 | 46 | RF | 72 |
| 21 | TAA | 71,2 | 47 | MAK | 75,2 |
| 22 | ZU | 73,6 | 48 | SMR | 67,2 |
| 23 | RA | 68,8 | 49 | TGO | 70,4 |
| 24 | RAM | 84,8 | 50 | TH | 80 |
| 25 | AP | 72 | 51 | ZA | 91,2 |

26 ACA 79,2

Based on the table above, the mean value was identified by using formula:

$$\mu X = \frac{\sum X_i}{n}$$

$$\mu X = \frac{3772.8}{51}$$

$$\mu X = 73.9765$$

In the teacher professional competence of teacher B, it is found that the average score was 73,9765.

Based on the analysis of the teacher professional competence of two English teachers from second-grade students of SMAN 11 Banda Aceh, it is found that the highest score is 95,2 and the lowest score is 44. The table below summarizes the findings of the teacher professional competency data processing for teacher A and teacher B.

Table 4.3

Teacher professional competence mean value

| | Mean value | Criteria |
|-----------|------------|----------|
| Teacher A | 63.5063 | Good |
| Teacher B | 73,9765 | Good |

Teacher A has an average score of 63,5063 and Teacher B 73,9765; both of which are in good criteria. It indicates that students perceive the two English teachers have good professional competence in handling the learning materials that will be provided to students, preparing learning materials, igniting students'

enthusiasm for learning through the use of learning media supported by classroom management, and carrying out efficient evaluations to see student learning outcomes.

2. The Result of Student Performance

Student performance data is gained from the documents collected by the researcher. In this study, the student's performance is measured by their midtest score from their latest semester. The midtest score consists of two kinds of value, namely, the value of knowledge and the value of skills. The researcher uses the average result of both values to define the student performance variable.

Table 4.4

Table of frequency of student performance for data set of teacher A

| No | Name | Score | No | Name | Score |
|----|------|-------|----|------|-------|
| 1 | AR | 65 | 33 | AH | 40 |
| 2 | AP | 67,5 | 34 | ANA | 55 |
| 3 | BS | 70 | 35 | ABF | 50 |
| 4 | CKJ | 65 | 36 | AM | 67,5 |
| 5 | CZT | 71,5 | 37 | AN | 40 |
| 6 | DNH | 65 | 38 | AS | 50 |
| 7 | DA | 69,5 | 39 | DPS | 60 |
| 8 | FA | 70 | 40 | DF | 67,5 |
| 9 | FM | 70 | 41 | HA | 65 |
| 10 | GA | 60 | 42 | II | 50 |
| 11 | IRP | 71,5 | 43 | ISH | 65 |
| 12 | MRH | 67,5 | 44 | JW | 65 |
| 13 | NA | 55 | 45 | KN | 52,5 |
| 14 | NS | 60 | 46 | MH | 60 |
| 15 | NY | 55 | 47 | MJ | 47,5 |
| 16 | NFZ | 52,5 | 48 | MA | 67,5 |
| 17 | NN | 65 | 49 | MM | 67,5 |
| 18 | OBR | 69,5 | 50 | NUB | 55 |
| 19 | RZ | 89,5 | 51 | NF | 60 |

| | | | | | |
|----|-----|------|----|-----|------|
| 20 | RB | 77 | 52 | NA | 65 |
| 21 | RBA | 67,5 | 53 | NS | 50 |
| 22 | SN | 50 | 54 | PBA | 69,5 |
| 23 | SEA | 65 | 55 | RNB | 60 |
| 24 | SR | 60 | 56 | RS | 60 |
| 25 | SM | 77,5 | 57 | RTS | 55 |
| 26 | SHA | 69,5 | 58 | SA | 52,5 |
| 27 | SBR | 77,5 | 59 | SA | 65 |
| 28 | SNA | 67,5 | 60 | SDM | 60 |
| 29 | SA | 55 | 61 | SNS | 60 |
| 30 | SNA | 70 | 62 | SA | 55 |
| 31 | UR | 55 | 63 | SN | 60 |
| 32 | VA | 65 | 64 | VN | 65 |

Based on the table above, the mean value was identified by using formula:

$$\mu Y = \frac{\sum Y_i}{n}$$

$$\mu Y = \frac{3977,5}{64}$$

$$\mu Y = 62.1484$$

In the student performance of teacher A's students, it is found that the average score was 62.1484.

Table 4.5

Table of frequency of student performance for data set of teacher B

| No | Name | Score | No | Name | Score |
|----|------|-------|----|------|-------|
| 1 | AL | 82 | 27 | FN | 80 |
| 2 | DA | 81,5 | 28 | FC | 84 |
| 3 | HA | 82,5 | 29 | KM | 82 |
| 4 | IAD | 82,5 | 30 | KM | 85 |
| 5 | MFA | 82,5 | 31 | MAH | 84 |
| 6 | MRM | 82,5 | 32 | MA | 84,5 |
| 7 | MST | 82,5 | 33 | MIF | 82 |
| 8 | MAF | 82,5 | 34 | MZ | 82 |
| 9 | MH | 82 | 35 | MI | 85,5 |
| 10 | MK | 83 | 36 | MIA | 79 |

| | | | | | |
|----|-----|------|----|-----|------|
| 11 | MRS | 81,5 | 37 | MAR | 84 |
| 12 | MR | 82,5 | 38 | MAI | 82,5 |
| 13 | MRI | 80,5 | 39 | MDP | 84 |
| 14 | MSA | 77 | 40 | MFA | 80,5 |
| 15 | MZA | 81 | 41 | MR | 84,5 |
| 16 | PA | 80 | 42 | MRE | 85 |
| 17 | RQ | 83 | 43 | MRA | 82,5 |
| 18 | RFR | 83,5 | 44 | MS | 85 |
| 19 | SH | 80,5 | 45 | MU | 83 |
| 20 | SRS | 78,5 | 46 | RF | 84,5 |
| 21 | TAA | 83 | 47 | MAK | 84,5 |
| 22 | ZU | 82,5 | 48 | SMR | 84 |
| 23 | RA | 83,5 | 49 | TGO | 85,5 |
| 24 | RAM | 82,5 | 50 | TH | 81 |
| 25 | AP | 86 | 51 | ZA | 82,5 |
| 26 | ACA | 84 | | | |

Based on the table above, the mean value was identified by using formula:

$$\mu Y = \frac{\sum Y_i}{n}$$

$$\mu Y = \frac{4214}{64}$$

$$\mu Y = 82.6275$$

In the student performance of teacher A's students, it is found that the average score was 82.6275.

Based on the analysis of the performance of the second-grade students of SMAN 11 Banda Aceh, it is known that the highest score is 89.5 and the lowest score is 40. The data's summary of the student performance results can be seen in the following table.

Table 4.6

Student performance mean value

| | Mean value | Criteria |
|-----------|------------|-----------|
| Teacher A | 62.1484 | Good |
| Teacher B | 82.6275 | Very good |

From the student performance table above, it indicates students in class Teacher A have an average score of 62.1484, namely with good criteria and students in class Teacher B have an average score of 82.6275 which is included in the very good criteria. Thus, it can be concluded that the second-grade student of SMAN 11 Banda Aceh, who learned English to teacher A and teacher B, has a good and very good student performance value.

3. The Result of Validity and Reliability Test

The research questionnaire's contents are tested to ensure their validity and reliability. The validity test is used to evaluate the validity of the questionnaire. The Pearson method correlation can be used to assess the instrument's validity. The item is valid if the R statistic value is larger than the R table value and invalid if the R statistic value is less than the R table value.

The reliability test determines whether the questionnaire will remain consistent when used repeatedly for measurement. Test of reliability in this study using Cronbach's Alpha formula. The data is said to be reliable if the reliability is $r \geq 0.60$. The validity and reliability tests were supported using the SPSS (Statistical Package for Social Science) 26 computer software.

Table 4.7

Validity and reliability test

| No. item | r Statistics | r table | Significance | Description | Cronbach Alpha | Description |
|----------|--------------|---------|--------------|-------------|----------------|-------------|
| 1. | 0,256 | 0,1528 | 0,006 | Valid | 0,841 | Reliable |
| 2. | 0,475 | 0,1528 | 0,011 | Valid | | |
| 3. | 0,236 | 0,1528 | 0,006 | Valid | | |
| 4. | 0,322 | 0,1528 | 0,000 | Valid | | |
| 5. | 0,558 | 0,1528 | 0,000 | Valid | | |
| 6. | 0,336 | 0,1528 | 0,000 | Valid | | |
| 7. | 0,596 | 0,1528 | 0,000 | Valid | | |
| 8. | 0,560 | 0,1528 | 0,000 | Valid | | |
| 9. | 0,695 | 0,1528 | 0,000 | Valid | | |
| 10. | 0,709 | 0,1528 | 0,000 | Valid | | |
| 11. | 0,635 | 0,1528 | 0,000 | Valid | | |
| 12. | 0,315 | 0,1528 | 0,001 | Valid | | |
| 13. | 0,584 | 0,1528 | 0,000 | Valid | | |
| 14. | 0,246 | 0,1528 | 0,008 | Valid | | |
| 15. | 0,318 | 0,1528 | 0,001 | Valid | | |
| 16. | 0,185 | 0,1528 | 0,048 | Valid | | |
| 17. | 0,468 | 0,1528 | 0,000 | Valid | | |
| 18. | 0,649 | 0,1528 | 0,000 | Valid | | |
| 19. | 0,350 | 0,1528 | 0,000 | Valid | | |

| | | | | |
|-----|-------|--------|-------|-------|
| 20. | 0,586 | 0,1528 | 0,000 | Valid |
| 21. | 0,481 | 0,1528 | 0,000 | Valid |
| 22. | 0,331 | 0,1528 | 0,000 | Valid |
| 23. | 0,351 | 0,1528 | 0,000 | Valid |
| 24. | 0,570 | 0,1528 | 0,000 | Valid |
| 25. | 0,505 | 0,1528 | 0,000 | Valid |

From the measurement results by the SPSS Program, it can be seen that the value of the correlation between item value and total value. The value is then compared with the R table. The R table was significant at 5% and the R table value for the 115 respondents was 0.1528. It is also seen in the table above that the entire item is valid because the R statistic value is larger than the R table value and the value of significance is all less than 0.05. Furthermore, the data is reliable because the Cronbach alpha formula result is 0.841 which is more significant than 0.06. The teacher professional competence variable's items are thus valid and reliable.

4. Hypothesis Testing

The hypothesis in this study is that “teacher professional competence has an impact on student performance of the second-grade students of SMAN 11 Banda Aceh”. This hypothesis is the alternative hypothesis (Ha). The alternative hypothesis was substituted for the null hypothesis (Ho) to test the hypothesis. The null hypothesis (Ho) is “teacher professional competence does not have an impact on student performance of second-grade students of SMAN 11 Banda Aceh”.

To test the hypothesis, it is necessary to perform a correlation test to determine the level of closeness of the relationship between variables. The correlation coefficient is used to find a linear relationship between two variables. The correlation coefficient, ranges from -1 to 1. If the correlation coefficient is zero, there is no correlation at all; on the other hand, if the correlation is 1 it indicates a perfect correlation. This shows that a higher correlation exists between two variables, the closer the correlation coefficient are to 1 or -1. On the other hand, correlation coefficient score near zero indicates an extremely weak correlation between the two variables. In addition to the correlation's strength, the correlation's sign also influences the interpretation of the results in this analysis. The positive symbol (+) denotes a correlation in one direction, whereas the negative sign (-) denotes the opposite direction correlation.

According to Sugiyono (2007) the guidelines for interpreting the correlation coefficient are as follows:

Table 4.8

Interpretation for the correlation coefficient

| Coefficient | Classification |
|-------------|----------------|
| 0.00-0.199 | Very weak |
| 0.20-0.399 | Weak |
| 0.40-0.599 | Moderate |
| 0.60-0.799 | Strong |
| 0.80-1.000 | Very strong |

The hypothesis testing is done on two sets of data separately. The result of the correlation coefficient test for the set of data of teacher A is shown below.

$$\begin{aligned}\rho_{XY} &= \frac{1}{N} \sum_{i=1}^N \frac{(x_i - \mu_X)(y_i - \mu_Y)}{\sigma_X \sigma_Y} \\ &= \frac{1}{64} \times \frac{1032.29062488}{9.0271 \times 8.9065} \\ &= \frac{1}{64} \times \frac{1032.29062488}{80.3999} \\ &= \frac{1032.29062488}{5145.5931} \\ \rho_{XY} &= 0.2006\end{aligned}$$

The correlation between Teacher A's professional competence and student performance can be seen in the calculation result. The correlation coefficient is 0.2006 which indicating that there is a correlation between variables. In this correlation, the coefficient value is indicates the strength of the correlation as a weak correlation and the correlation direction is positive.

The result of the correlation coefficient test for the set of data of teacher B is shown below.

$$\begin{aligned}\rho_{XY} &= \frac{1}{N} \sum_{i=1}^N \frac{(x_i - \mu_X)(y_i - \mu_Y)}{\sigma_X \sigma_Y} \\ &= \frac{1}{51} \times \frac{130.35294125}{8.4357 \times 1.8334} \\ &= \frac{1}{51} \times \frac{130.35294125}{15.4658} \\ &= \frac{130.35294125}{788.7535} \\ \rho_{XY} &= 0.1653\end{aligned}$$

The calculation above shows the correlation between Teacher B's professional competence and student performance. In this correlation, the coefficient value is 0.1653, which means the strength of the correlation as a very weak correlation and the correlation direction is positive.

So, it can be concluded that the analysis of the set of data of teacher A indicates that there is correlation between variables, the strength of the correlation is weak, and the correlation direction is positive. Meanwhile, the analysis of the set of data of teacher B shows that there is a correlation between variables, the strength is very weak and the correlation direction is positive. In conclusion, H_0 is rejected and H_a is accepted. This means that teacher professional competence have an impact on student performance of the second-grade student of SMAN 11 Banda Aceh.

B. Discussion

Based on the results of the study, the analysis results were acquired to answer the two research questions. The data description of the teacher's professional competence variable was used to answer the first research question about how is the professional competence of the English teacher of SMAN 11 Banda Aceh. As their teacher professional competence is measured and studied separately, the two English teachers are coded with teacher A and B.

Based on the analysis of the teacher professional competence of two English teachers from second-grade students of SMAN 11 Banda Aceh, it is found that the highest score is 95,2 and the lowest score is 44. Teacher A has an average score of 63.5063 and teacher B 73.9765, both of which are in good criteria. So, it can be

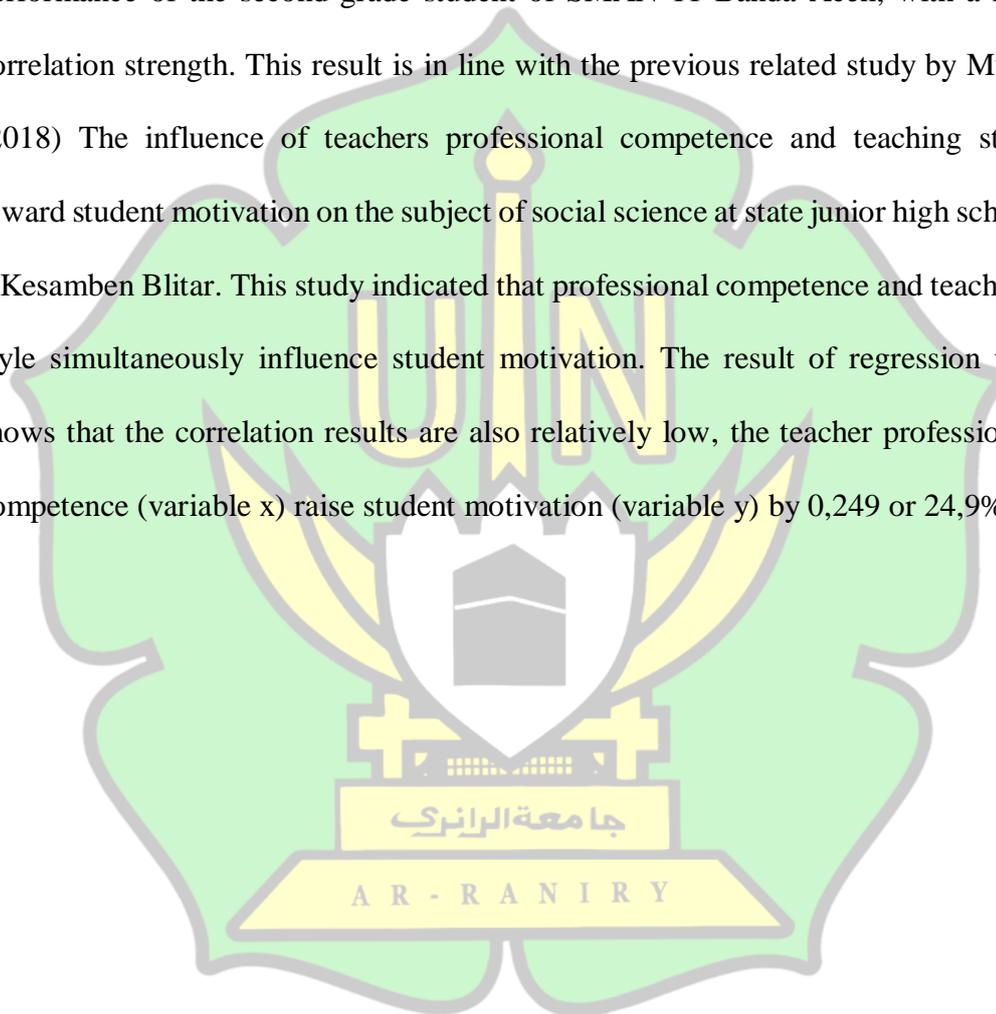
concluded that students perceive the two English teachers have good professional competence in handling the learning materials that will be provided to students, preparing learning materials, igniting students' enthusiasm for learning and carrying out efficient evaluations to see student learning outcomes.

Based on the analysis of the student performance of the second-grade students of SMAN 11 Banda Aceh, it is known that the highest score is 89.5 and the lowest score is 40. Students in class Teacher A have an average score of 62.1484, namely with good criteria and students in class Teacher B have an average score of 82.6275 which is included in the very good criteria. Thus, it can be concluded that the second-grade student of SMAN 11 Banda Aceh, who learned English to teacher A and teacher B, has a good and very good student performance value.

Furthermore, the data is analyzed using the correlation coefficient method to see the correlation between teacher professional competence and student performance. The coefficient correlation for the two sets of data is 0.2006 and 0.1653. This reveals that the score of the data set of teacher A was included on the scale between 0.20-0.399 and the data set of teacher B on the scale between 0.00-0.199. The scale indicates that there is a low correlation between variable X (teacher professional competence) and variable Y (student performance) for the set of data of teacher A. It also indicates a very low correlation between variable X (teacher professional competence) and variable Y (student performance) for the set of data of teacher B. Thus, it can be considered that teacher professional competence have

an impact on student performance of the second-grade student of SMAN 11 Banda Aceh.

The result of this study showed that H_0 was rejected or H_a was accepted, which means that teacher professional competence have an impact on student performance of the second-grade student of SMAN 11 Banda Aceh, with a low correlation strength. This result is in line with the previous related study by Murti (2018) The influence of teachers professional competence and teaching style toward student motivation on the subject of social science at state junior high school 1 Kesamben Blitar. This study indicated that professional competence and teaching style simultaneously influence student motivation. The result of regression test shows that the correlation results are also relatively low, the teacher professional competence (variable x) raise student motivation (variable y) by 0,249 or 24,9% .



CHAPTER 5

CONCLUSION AND SUGGESTIONS

This chapter provides conclusions from the study's findings and a suggestion for future development was provided.

A. Conclusion

Based on the findings of the data analysis, teacher A has an average score of 62.975 and teacher B 72.3451, both of which are in good criteria. It means that both of the English teachers have good professional competence in handling the learning materials that will be provided to students, preparing learning materials, igniting students' enthusiasm for learning through the use of learning media supported by classroom management and carrying out efficient evaluations to see student learning outcomes.

Moreover, based on the analysis of the student performance of the second-grade students of SMAN 11 Banda Aceh, students in class Teacher A have an average score of 60.7813 in good criteria, and students in class Teacher B have an average score of 82.2451 in the very good criteria. Thus, it can be concluded that the second-grade student of SMAN 11 Banda Aceh, who learned English to teacher A and teacher B, has a good and very good student performance value.

In addition, the data is analyzed using the correlation coefficient method to see the correlation between teacher professional competence and student performance. The coefficient correlation for the two sets of data is 0.2006 and

0.1653. This reveals that the score of the data set of teacher A was included on the scale between 0.20-0.399 and the data set of teacher B on the scale between 0.00-0.199. The scale indicates that there is a low correlation between variable X (teacher professional competence) and variable Y (student performance) for the set of data of teacher A. It also indicates a very low correlation between variable X (teacher professional competence) and variable Y (student performance) for the set of data of teacher B. Thus, it can be considered that teacher professional competence have an impact on student performance of the second-grade student of SMAN 11 Banda Aceh, with a low correlation strength.

The result of this study showed that H_0 was rejected or H_a was accepted, which means that teacher professional competence have an impact on student performance of the second-grade student of SMAN 11 Banda Aceh. In other words, there is a low correlation strength between teacher professional competence with student performance. This concludes that if we want to assist in the improvement of student performance, we cannot only rely just on the teacher's professional competence but also others elements outside teacher professional competence, such as student attitude, school resources, the role of parents, and many more. However, the results also imply that, however essential a certain factor may be, it cannot be used alone to improve a student's performance. The greatest point to make is that teacher's professional competence should be viewed as a tool for improving student's performance.

B. Suggestions

To conclude this study, the following suggestions might be taken into consideration:

1. Students should increase their performance in the teaching-learning process. They should be aware of other factors which have a more substantial impact on such performance. Such factors include school resources, the role of parents, social circle, health-related factors, and study skills development.
2. Teachers should constantly develop their professional competence. The teacher is seen as an essential component of the educational process. Their knowledge and admirable behavior will give the students fresh perspectives and experiences. Although they may weakly influence a student's performance, they can at least help prepare the students for life following graduation.
3. This study reveals that student performance is not significantly impacted by one variable, teacher professional competence. This shows that there are still a lot of additional elements that can impact student performance, and future researchers need to reveal these factors. In addition, considering that this research variable has low impact on student performance, this study has to be retested in a new setting, such as in schools with higher student performance or in school with more reliable and objective exam assessment.

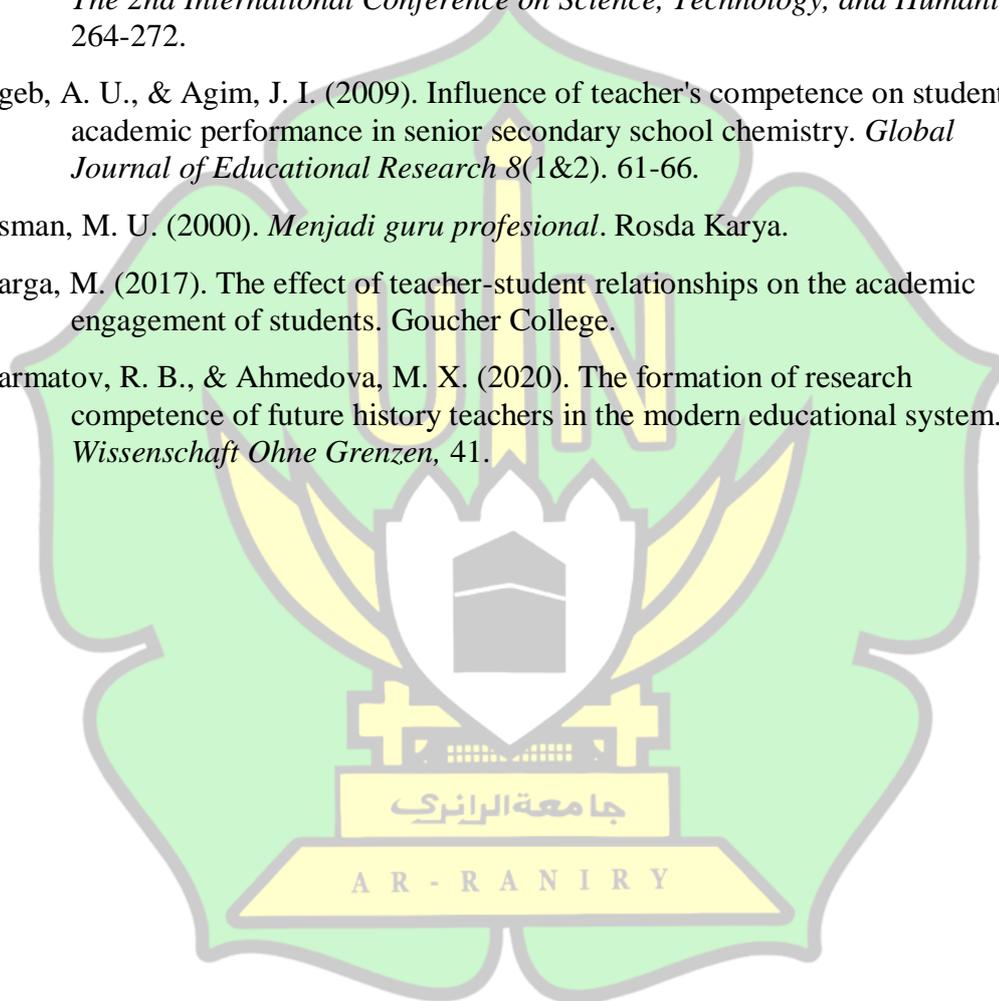
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APPENDICES

Appendix A: Appointment Letter of Supervisors

SURAT KEPUTUSAN DEKAN FAKULTAS TARBİYAH DAN KEGURUAN UIN AR-RANIRY
Nomor : B-6435/UN.08/FTK/KP.07.6/06/2022

TENTANG
PENGANGKATAN PEMBIMBING SKRIPSI MAHASISWA FAKULTAS TARBİYAH DAN KEGURUAN
UIN AR-RANIRY

DEKAN FAKULTAS TARBİYAH DAN KEGURUAN UIN AR-RANIRY

- Menimbang : a. bahwa untuk kelancaran bimbingan skripsi dan ujian munaqasyah mahasiswa pada Fakultas Tarbiyah dan Keguruan UIN Ar-Raniry Banda Aceh, maka dipandang perlu menunjuk pembimbing skripsi tersebut yang dituangkan dalam Surat Keputusan Dekan;
b. bahwa saudara yang tersebut namanya dalam surat keputusan ini dipandang cakap dan memenuhi syarat untuk diangkat sebagai pembimbing skripsi.
- Mengingat : 1. Undang-undang Nomor 20 Tahun 2003, tentang Sistem Pendidikan Nasional;
2. Undang-undang Nomor 14 Tahun 2005, tentang Guru dan Dosen;
3. Undang-undang Nomor 12 Tahun 2012, tentang Pendidikan Tinggi;
4. Peraturan Pemerintah Nomor 74 Tahun 2012 tentang Perubahan atas Peraturan Pemerintah RI Nomor 23 Tahun 2005 tentang Pengelolaan Keuangan Badan Layanan Umum;
5. Peraturan Pemerintah Nomor 4 Tahun 2014, tentang Penyelenggaraan Pendidikan Tinggi dan Pengelolaan Perguruan Tinggi;
6. Peraturan Presiden RI Nomor 64 Tahun 2013; tentang Perubahan IAIN Ar-Raniry Banda Aceh Menjadi UIN Ar-Raniry Banda Aceh;
7. Peraturan Menteri Agama RI Nomor 12 Tahun 2014, tentang Organisasi dan Tata Kerja UIN Ar-Raniry Banda Aceh;
8. Peraturan Menteri Republik Indonesia No. 21 Tahun 2015, tentang Statuta UIN Ar-Raniry;
9. Keputusan Menteri Agama Nomor 492 Tahun 2003, tentang Pendelegasian Wewenang, Pengangkatan, Pemindahan dan Pemberhentian PNS di Lingkungan Departemen Agama Republik Indonesia;
10. Keputusan Menteri Keuangan Nomor 293/KMK.05/2011 tentang Penetapan Institut Agama Islam Negeri Ar-Raniry Banda Aceh pada Kementerian Agama sebagai Instansi Pemerintah yang Menerapkan Pengelolaan Badan Layanan Umum;
11. Keputusan Rektor UIN Ar-Raniry Nomor 01 Tahun 2015, tentang Pendelegasian Wewenang kepada Dekan dan Direktur Pascasarjana di Lingkungan UIN Ar-Raniry Banda Aceh;
- Memperhatikan : Keputusan Sidang/Seminar Proposal Skripsi Prodi Pendidikan Bahasa Inggris Fakultas Tarbiyah dan Keguruan UIN Ar-Raniry Tanggal 18 Mei 2022
- MEMUTUSKAN**
- Menetapkan :
PERTAMA : Menunjuk Saudara:
1. Syarifah Dahliana, Ph.D. Sebagai Pembimbing Pertama
2. Nidawati, M.Pd. Sebagai Pembimbing Kedua
Untuk membimbing Skripsi :
Nama : Ulfa zakirah
NIM : 180203111
Program Studi : Pendidikan Bahasa Inggris
Judul Skripsi : The Impacts of Teacher's Professional Competence on Student's Performances
- KEDUA : Pembiayaan honorarium pembimbing pertama dan kedua tersebut diatas dibebankan pada DIPA UIN Ar-Raniry Banda Aceh Nomor: SP DIPA. 025.04.2.423925/2022, tanggal 17 November 2021.
- KETIGA : Surat keputusan ini berlaku sampai akhir semester Ganjil Tahun Akademik 2022/2023
- KEEMPAT : Surat Keputusan ini berlaku sejak tanggal ditetapkan dengan ketentuan segala sesuatu akan diubah dan diperbaiki kembali sebagaimana mestinya apabila kemudian hari ternyata terdapat kekeliruan dalam penetapan ini.

Ditetapkan di: Banda Aceh
Pada Tanggal: 03 Juni 2022
Dekan,


Muslim Razali

Tembusan

1. Rektor UIN Ar-Raniry (sebagai laporan);
2. Ketua Prodi PBI Fak. Tarbiyah dan Keguruan;
3. Pembimbing yang bersangkutan untuk dimaklumi dan dilaksanakan;
4. Mahasiswa yang bersangkutan;
5. Arsip.

Appendix B: Recommendation Letter from The Fakultas Tarbiyah dan Keguruan to Conduct Field Research



KEMENTERIAN AGAMA
UNIVERSITAS ISLAM NEGERI AR-RANIRY
FAKULTAS TARBİYAH DAN KEGURUAN
 Jl. Syeikh Abdur Rauf Kopelma Darussalam Banda Aceh
 Telepon : 0651- 7557321, Email : uin@ar-raniry.ac.id

Nomor : B-14198/Un.08/FTK.1/TL.00/10/2022
 Lamp : -
 Hal : **Penelitian Ilmiah Mahasiswa**

Kepada Yth,

1. Kepala Cabang Dinas Pendidikan Wilayah Kota Banda Aceh
2. Kepala Sekolah SMAN 11 Banda Aceh

Assalamu'alaikum Wr.Wb.

Pimpinan Fakultas Tarbiyah dan Keguruan UIN Ar-Raniry dengan ini menerangkan bahwa:

Nama/NIM : **ULFA ZAKIRAH / 180203111**
 Semester/Jurusan : IX / Pendidikan Bahasa Inggris
 Alamat sekarang : Jln. Beringin, Gg. Buntu No. 28, Gampoeng Cot Mesjid, Kec. Lueng Bata, Kota Banda Aceh

Saudara yang tersebut namanya diatas benar mahasiswa Fakultas Tarbiyah dan Keguruan bermaksud melakukan penelitian ilmiah di lembaga yang Bapak/Ibu pimpin dalam rangka penulisan Skripsi dengan judul ***The Impact of Teacher's Professional Competence on Student's Performances***

Demikian surat ini kami sampaikan atas perhatian dan kerjasama yang baik, kami mengucapkan terimakasih.

Banda Aceh, 26 Oktober 2022
 an. Dekan
 Wakil Dekan Bidang Akademik dan
 Kelembagaan,



Berlaku sampai : 26 November 2022

Habiburrahim, M.Com., M.S., Ph.D.

Appendix C: Recommendation Letter from The Education Office to Conduct Field Research



PEMERINTAH ACEH
DINAS PENDIDIKAN
**CABANG DINAS WILAYAH KOTA BANDA ACEH
DAN KABUPATEN ACEH BESAR**

Alamat: Jalan Geuchik H. Abd. Jalli No. 1 Gampong Lamlagang, Kec. Banda Raya, Kota Banda Aceh KodePos: 23239
Telepon: (0651) 7569512, Faksimile: (0651) 7569513 7569513, E-mail : cabang.disdik1@gmail.com

REKOMENDASI

Nomor: 421.3/ 28.26

Kepala Cabang Dinas Pendidikan Wilayah Kota Banda Aceh dan Kabupaten Aceh Besar dengan ini memberikan Rekomendasi kepada :

Nama : Ulfa Zakirah
NPM : 180203111
Judul : *The Impact of Teacher's Professional Competence on Student's Performance.*

Untuk Melakukan Penelitian Ilmiah dalam rangka penulisan skripsi di SMA Negeri 11 Banda Aceh, Sesuai dengan surat dari Wakil Dekan Bidang Akademik dan Kelembagaan Universitas Islam Negeri Ar Raniry Banda Aceh Nomor : B-14198/Un.08/FTK.1/TL.00/10/2022, tanggal 24 Oktober 2022.

Demikianlah Rekomendasi ini dikeluarkan untuk dapat digunakan sebagaimana mestinya.

Banda Aceh, 26 Oktober 2022

KEPALA CABANG DINAS PENDIDIKAN
WILAYAH KOTA BANDA ACEH DAN
KABUPATEN ACEH BESAR,

SYARWAN JONI, S.Pd., M.Pd

Pembina/Tingkat I

NIP. 19730505 199803 1 008

Appendix D: Questionnaires

QUESTIONNAIRES

Identitas Responden

Nama:

Kelas:

Jenis kelamin:

No. Absen:

Petunjuk pengisian

Bacalah pernyataan berikut ini kemudian pilihlah salah satu jawaban yang sesuai dengan pilihan Anda. Berilah tanda checklist pada jawaban Anda pada kolom kriteria jawaban yang artinya sebagai berikut:

| | |
|----|---------------|
| SL | Selalu |
| SR | Sering |
| KD | Kadang-Kadang |
| JR | Jarang |
| TP | Tidak Pernah |

Atas kesediaannya mengisi angket, saya ucapkan terimakasih.

| No | Pertanyaan | SL | SR | KD | JR | TP |
|----|--|----|----|----|----|----|
| 1. | Guru Bahasa Inggris merumuskan tujuan dari pembelajaran di setiap awal proses pembelajaran | | | | | |
| 2. | Guru Bahasa Inggris membawa RPP di setiap proses pembelajaran | | | | | |
| 3. | Sebelum pembelajaran, guru Bahasa Inggris menjelaskan ketrampilan dan pengetahuan yang harus dikuasai siswa | | | | | |
| 4. | Guru Bahasa Inggris tepat waktu dalam menyampaikan materi pelajaran dan selesai sebelum waktu pelajaran berakhir | | | | | |
| 5. | Guru Bahasa Inggris mampu menjelaskan materi pelajaran dengan baik | | | | | |

| | | | | | | |
|-----|---|--|--|--|--|--|
| 6. | Guru Bahasa Inggris mampu menjawab soal/pertanyaan dari siswa yang bertanya | | | | | |
| 7. | Guru Bahasa Inggris mengajar dengan cara mempraktekkan materi yang dipelajari sehingga siswa cepat paham | | | | | |
| 8. | Guru Bahasa Inggris menggunakan Bahasa yang mudah dimengerti oleh siswa | | | | | |
| 9. | Guru Bahasa Inggris mampu membangkitkan motivasi belajar siswa | | | | | |
| 10. | Guru Bahasa Inggris menggunakan metode belajar yang bervariasi sehingga siswa tidak bosan | | | | | |
| 11. | Guru Bahasa Inggris menggunakan alat/media pembelajaran sehingga siswa cepat paham dengan materi | | | | | |
| 12. | Guru Bahasa Inggris mengatur suasana kelas yang ramai menjadi diam agar materi yang disampaikan dapat diterima oleh siswa | | | | | |
| 13. | Guru Bahasa Inggris akan segera mengubah suasana ketika pelajaran dengan cara yang lebih menarik, sehingga siswa tidak jenuh | | | | | |
| 14. | Guru Bahasa Inggris akan memberikan teguran kepada siswa jika ramai/membuat ulah ketika proses pembelajaran | | | | | |
| 15. | Guru Bahasa Inggris memberikan rewards (hadiah) kepada siswa yang bisa menjawab dan mendapat nilai yang bagus setelah ulangan | | | | | |
| 16. | Guru Bahasa Inggris memberikan punishment (hukuman) kepada siswa yang melanggar aturan dan tidak mengerjakan PR | | | | | |
| 17. | Guru Bahasa Inggris akan memberikan pujian kepada siswa yang rajin dan selalu mengerjakan PR | | | | | |

| | | | | | | |
|-----|--|--|--|--|--|--|
| 18. | Guru Bahasa Inggris mengajar dengan cara mempraktekkan materi yang dipelajari sehingga siswa cepat paham | | | | | |
| 19. | Guru Bahasa Inggris memanfaatkan Laptop, LCD, LKS, dan Buku Paket Ketika sedang mengajar | | | | | |
| 20. | Guru Bahasa Inggris mengajak siswa berdiskusi di kelas dalam membahas materi yang sedang diajarkan | | | | | |
| 21. | Guru Bahasa Inggris menyimpulkan materi yang telah didapat di akhir pelajaran dengan melibatkan siswa | | | | | |
| 22. | Guru Bahasa Inggris memberikan pertanyaan setelah pelajaran usai untuk mengukur kemampuan siswa | | | | | |
| 23. | Guru Bahasa Inggris memberikan tugas di akhir setiap pertemuan kepada siswa sehingga siswa selalu belajar di rumah | | | | | |
| 24. | Guru Bahasa Inggris memberikan hasil penilaian pada siswa secara rutin sehingga siswa mengetahui perkembangan belajarnya | | | | | |
| 25. | Guru Bahasa Inggris melaksanakan remedial untuk memperbaiki nilai siswa yang belum mencukup standar | | | | | |

Instrument is adopted and adapted from skripsi The effect of teacher professional competency and student learning intensity towards student learning outcomes on social science subject for the eight-grade student of SMP Negeri 2 Peterongan by Khotimah (2019).

Appendix E: Output Data of Coefficient Calculations

Output Data of Teacher A

| $(x_i - \mu_X)(x_i - \mu_X)$ | $(x_i - \mu_X)^2(x_i - \mu_X)^2$ | $(y_i - \mu_Y)(y_i - \mu_Y)$ | $(y_i - \mu_Y)^2(y_i - \mu_Y)^2$ | $(x_i - \mu_X)(y_i - \mu_Y)(x_i - \mu_X)(y_i - \mu_Y)$ |
|------------------------------|----------------------------------|------------------------------|----------------------------------|--|
| -7.5063 | 56.34453969 | 2.8516 | 8.13162256 | -21.40496508 |
| -8.3063 | 68.99461969 | 5.3516 | 28.63962256 | -44.45199508 |
| 6.4937 | 42.16813969 | 7.8516 | 61.64762256 | 50.98593492 |
| 7.6937 | 59.19301969 | 2.8516 | 8.13162256 | 21.93935492 |
| -4.3063 | 18.54421969 | 9.3516 | 87.45242256 | -40.27079508 |
| -5.1063 | 26.07429969 | 2.8516 | 8.13162256 | -14.56112508 |
| 10.8937 | 118.67269969 | 7.3516 | 54.04602256 | 80.08612492 |
| 14.0937 | 198.63237969 | 7.8516 | 61.64762256 | 110.65809492 |
| 10.8937 | 118.67269969 | 7.8516 | 61.64762256 | 85.53297492 |
| 3.6937 | 13.64341969 | -2.1484 | 4.61562256 | -7.93554508 |
| -3.5063 | 12.29413969 | 9.3516 | 87.45242256 | -32.78951508 |
| 22.0937 | 488.13157969 | 5.3516 | 28.63962256 | 118.23664492 |
| -9.9063 | 98.13477969 | -7.1484 | 51.09962256 | 70.81419492 |
| 2.8937 | 8.37349969 | -2.1484 | 4.61562256 | -6.21682508 |
| -19.5063 | 380.49573969 | -7.1484 | 51.09962256 | 139.43883492 |
| -9.9063 | 98.13477969 | -9.6484 | 93.09162256 | 95.57994492 |
| 10.0937 | 101.88277969 | 2.8516 | 8.13162256 | 28.78319492 |
| -0.3063 | 0.09381969 | 7.3516 | 54.04602256 | -2.25179508 |
| -3.5063 | 12.29413969 | 27.3516 | 748.11002256 | -95.90291508 |
| 14.0937 | 198.63237969 | 14.8516 | 220.57002256 | 209.31399492 |
| 2.8937 | 8.37349969 | 5.3516 | 28.63962256 | 15.48592492 |
| 4.4937 | 20.19333969 | -12.1484 | 147.58362256 | -54.59126508 |

| $(x_i - \mu_X)(x_i - \mu_X)$ | $(x_i - \mu_X)^2(x_i - \mu_X)^2$ | $(y_i - \mu_Y)(y_i - \mu_Y)$ | $(y_i - \mu_Y)^2(y_i - \mu_Y)^2$ | $(x_i - \mu_X)(y_i - \mu_Y)(x_i - \mu_X)(y_i - \mu_Y)$ |
|------------------------------|----------------------------------|------------------------------|----------------------------------|--|
| -5.9063 | 34.88437969 | 2.8516 | 8.13162256 | -16.84240508 |
| -4.3063 | 18.54421969 | -2.1484 | 4.61562256 | 9.25165492 |
| -3.5063 | 12.29413969 | 15.3516 | 235.67162256 | -53.82731508 |
| -1.9063 | 3.63397969 | 7.3516 | 54.04602256 | -14.01435508 |
| 20.4937 | 419.99173969 | 15.3516 | 235.67162256 | 314.61108492 |
| -5.1063 | 26.07429969 | 5.3516 | 28.63962256 | -27.32687508 |
| -7.5063 | 56.34453969 | -7.1484 | 51.09962256 | 53.65803492 |
| 14.0937 | 198.63237969 | 7.8516 | 61.64762256 | 110.65809492 |
| 1.2937 | 1.67365969 | -7.1484 | 51.09962256 | -9.24788508 |
| 8.4937 | 72.14293969 | 2.8516 | 8.13162256 | 24.22063492 |
| 1.2937 | 1.67365969 | -22.1484 | 490.55162256 | -28.65338508 |
| 3.6937 | 13.64341969 | -7.1484 | 51.09962256 | -26.40404508 |
| 0.4937 | 0.24373969 | -12.1484 | 147.58362256 | -5.99766508 |
| -12.3063 | 151.44501969 | 5.3516 | 28.63962256 | -65.85839508 |
| 0.4937 | 0.24373969 | -22.1484 | 490.55162256 | -10.93466508 |
| -5.9063 | 34.88437969 | -12.1484 | 147.58362256 | 71.75209492 |
| -8.3063 | 68.99461969 | -2.1484 | 4.61562256 | 17.84525492 |
| -1.1063 | 1.22389969 | 5.3516 | 28.63962256 | -5.92047508 |
| -12.3063 | 151.44501969 | 2.8516 | 8.13162256 | -35.09264508 |
| 7.6937 | 59.19301969 | -12.1484 | 147.58362256 | -93.46614508 |
| -13.1063 | 171.77509969 | 2.8516 | 8.13162256 | -37.37392508 |
| -13.1063 | 171.77509969 | 2.8516 | 8.13162256 | -37.37392508 |
| -18.7063 | 349.92565969 | -9.6484 | 93.09162256 | 180.48586492 |

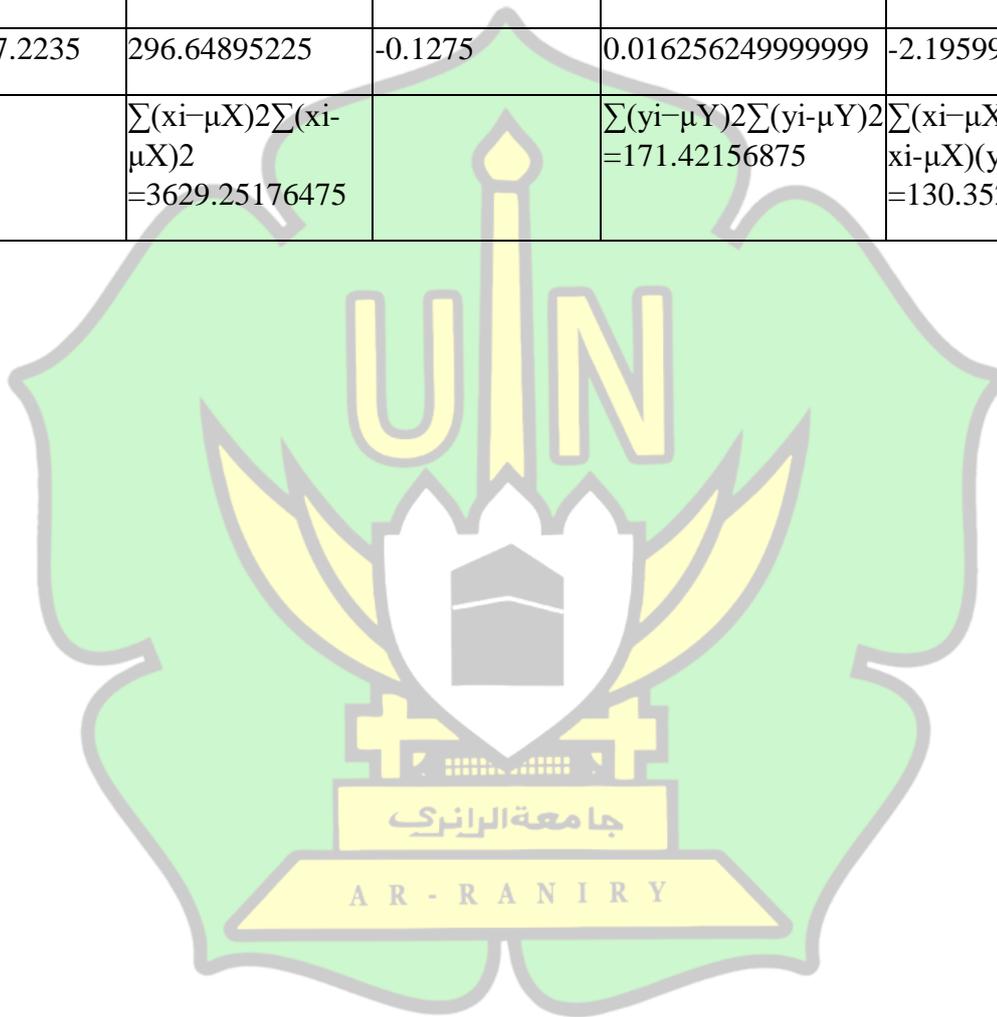
| $(x_i - \mu_X)(x_i - \mu_X)$ | $(x_i - \mu_X)^2(x_i - \mu_X)^2$ | $(y_i - \mu_Y)(y_i - \mu_Y)$ | $(y_i - \mu_Y)^2(y_i - \mu_Y)^2$ | $(x_i - \mu_X)(y_i - \mu_Y)(x_i - \mu_X)(y_i - \mu_Y)$ |
|------------------------------|---|------------------------------|---|---|
| -8.3063 | 68.99461969 | -2.1484 | 4.61562256 | 17.84525492 |
| -8.3063 | 68.99461969 | -14.6484 | 214.57562256 | 121.67400492 |
| 2.0937 | 4.38357969 | 5.3516 | 28.63962256 | 11.20464492 |
| -9.9063 | 98.13477969 | 5.3516 | 28.63962256 | -53.01455508 |
| 14.8937 | 221.82229969 | -7.1484 | 51.09962256 | -106.46612508 |
| -2.7063 | 7.32405969 | -2.1484 | 4.61562256 | 5.81421492 |
| -1.1063 | 1.22389969 | 2.8516 | 8.13162256 | -3.15472508 |
| -1.9063 | 3.63397969 | -12.1484 | 147.58362256 | 23.15849492 |
| -3.5063 | 12.29413969 | 7.3516 | 54.04602256 | -25.77691508 |
| 6.0937 | 37.13317969 | -2.1484 | 4.61562256 | -13.09170508 |
| 3.6937 | 13.64341969 | -2.1484 | 4.61562256 | -7.93554508 |
| 3.6937 | 13.64341969 | -7.1484 | 51.09962256 | -26.40404508 |
| 2.0937 | 4.38357969 | -9.6484 | 93.09162256 | -20.20085508 |
| 8.4937 | 72.14293969 | 2.8516 | 8.13162256 | 24.22063492 |
| 8.4937 | 72.14293969 | -2.1484 | 4.61562256 | -18.24786508 |
| 10.0937 | 101.88277969 | -2.1484 | 4.61562256 | -21.68530508 |
| -14.7063 | 216.27525969 | -7.1484 | 51.09962256 | 105.12651492 |
| 4.4937 | 20.19333969 | -2.1484 | 4.61562256 | -9.65426508 |
| 2.8937 | 8.37349969 | 2.8516 | 8.13162256 | 8.25167492 |
| | $\sum(x_i - \mu_X)^2 \sum(x_i - \mu_X)^2$ =5215.27750016 | | $\sum(y_i - \mu_Y)^2 \sum(y_i - \mu_Y)^2$ =5076.83984384 | $\sum(x_i - \mu_X)(y_i - \mu_Y) \sum(x_i - \mu_X)(y_i - \mu_Y)$ =1032.29062488 |

Output Data of Teacher B

| $(x_i - \mu_X)(x_i - \mu_X)$ | $(x_i - \mu_X)^2(x_i - \mu_X)^2$ | $(y_i - \mu_Y)(y_i - \mu_Y)$ | $(y_i - \mu_Y)^2(y_i - \mu_Y)^2$ | $(x_i - \mu_X)(y_i - \mu_Y)(x_i - \mu_X)(y_i - \mu_Y)$ |
|------------------------------|----------------------------------|------------------------------|----------------------------------|--|
| -8.3765 | 70.16575225 | -0.6275 | 0.39375625 | 5.25625375 |
| -1.1765 | 1.38415225 | -1.1275 | 1.27125625 | 1.32650375 |
| 7.6235 | 58.11775225 | -0.1275 | 0.0162562499999999 | -0.971996249999998 |
| 3.6235 | 13.12975225 | -0.1275 | 0.0162562499999999 | -0.461996249999999 |
| -10.7765 | 116.13295225 | -0.1275 | 0.0162562499999999 | 1.37400375 |
| 10.0235 | 100.47055225 | -0.1275 | 0.0162562499999999 | -1.27799625 |
| 15.6235 | 244.09375225 | -0.1275 | 0.0162562499999999 | -1.99199625 |
| 8.4235 | 70.95535225 | -0.1275 | 0.0162562499999999 | -1.07399625 |
| 5.2235 | 27.28495225 | -0.6275 | 0.39375625 | -3.27774625 |
| -10.7765 | 116.13295225 | 0.3725 | 0.13875625 | -4.01424625 |
| 7.6235 | 58.11775225 | -1.1275 | 1.27125625 | -8.59549625 |
| -13.9765 | 195.34255225 | -0.1275 | 0.0162562499999999 | 1.78200375 |
| -5.9765 | 35.71855225 | -2.1275 | 4.52625625 | 12.71500375 |
| -5.1765 | 26.79615225 | -5.6275 | 31.66875625 | 29.13075375 |
| 6.0235 | 36.28255225 | -1.6275 | 2.64875625 | -9.80324625 |
| 2.0235 | 4.09455225 | -2.6275 | 6.90375625 | -5.31674625 |
| -10.7765 | 116.13295225 | 0.3725 | 0.13875625 | -4.01424625 |
| 21.2235 | 450.43695225 | 0.8725 | 0.76125625 | 18.51750375 |
| -7.5765 | 57.40335225 | -2.1275 | 4.52625625 | 16.11900375 |
| 1.2235 | 1.49695225 | -4.1275 | 17.03625625 | -5.04999625 |
| -2.7765 | 7.70895225 | 0.3725 | 0.13875625 | -1.03424625 |
| -0.3765000 0000001 | 0.1417522500000 1 | -0.1275 | 0.0162562499999999 | 0.04800375 |

| $(x_i - \mu_X)(x_i - \mu_X)$ | $(x_i - \mu_X)^2(x_i - \mu_X)^2$ | $(y_i - \mu_Y)(y_i - \mu_Y)$ | $(y_i - \mu_Y)^2(y_i - \mu_Y)^2$ | $(x_i - \mu_X)(y_i - \mu_Y)(x_i - \mu_X)(y_i - \mu_Y)$ |
|------------------------------|----------------------------------|------------------------------|----------------------------------|--|
| -5.1765 | 26.79615225 | 0.8725 | 0.76125625 | -4.51649625 |
| 10.8235 | 117.14815225 | -0.1275 | 0.0162562499999999 | -1.37999625 |
| -1.9765 | 3.90655225 | 3.3725 | 11.37375625 | -6.66574625 |
| 5.2235 | 27.28495225 | 1.3725 | 1.88375625 | 7.16925375 |
| -21.1765 | 448.44415225 | -2.6275 | 6.90375625 | 55.64125375 |
| -1.9765 | 3.90655225 | 1.3725 | 1.88375625 | -2.71274625 |
| -8.3765 | 70.16575225 | -0.6275 | 0.39375625 | 5.25625375 |
| -1.9765 | 3.90655225 | 2.3725 | 5.62875625 | -4.68924625 |
| -5.9765 | 35.71855225 | 1.3725 | 1.88375625 | -8.20274625 |
| -1.1765 | 1.38415225 | 1.8725 | 3.50625625 | -2.20299625 |
| -1.1765 | 1.38415225 | -0.6275 | 0.39375625 | 0.73825375 |
| -6.7765 | 45.92095225 | -0.6275 | 0.39375625 | 4.25225375 |
| -1.9765 | 3.90655225 | 2.8725 | 8.25125625 | -5.67749625 |
| -7.5765 | 57.40335225 | -3.6275 | 13.15875625 | 27.48375375 |
| 15.6235 | 244.09375225 | 1.3725 | 1.88375625 | 21.44325375 |
| -3.5765 | 12.79135225 | -0.1275 | 0.0162562499999999 | 0.456003749999999 |
| -2.7765 | 7.70895225 | 1.3725 | 1.88375625 | -3.81074625 |
| -7.5765 | 57.40335225 | -2.1275 | 4.52625625 | 16.11900375 |
| 2.0235 | 4.09455225 | 1.8725 | 3.50625625 | 3.78900375 |
| -1.9765 | 3.90655225 | 2.3725 | 5.62875625 | -4.68924625 |
| 2.8235 | 7.97215225 | -0.1275 | 0.0162562499999999 | -0.359996249999999 |
| 9.2235 | 85.07295225 | 2.3725 | 5.62875625 | 21.88275375 |
| 12.4235 | 154.34335225 | 0.3725 | 0.13875625 | 4.62775375 |
| -1.9765 | 3.90655225 | 1.8725 | 3.50625625 | -3.70099625 |

| $(x_i - \mu_X)(x_i - \mu_X)$ | $(x_i - \mu_X)^2(x_i - \mu_X)^2$ | $(y_i - \mu_Y)(y_i - \mu_Y)$ | $(y_i - \mu_Y)^2(y_i - \mu_Y)^2$ | $(x_i - \mu_X)(y_i - \mu_Y)(x_i - \mu_X)(y_i - \mu_Y)$ |
|------------------------------|---|------------------------------|--|--|
| 1.2235 | 1.49695225 | 1.8725 | 3.50625625 | 2.29100375 |
| -6.7765 | 45.92095225 | 1.3725 | 1.88375625 | -9.30074625 |
| -3.5765 | 12.79135225 | 2.8725 | 8.25125625 | -10.27349625 |
| 6.0235 | 36.28255225 | -1.6275 | 2.64875625 | -9.80324625 |
| 17.2235 | 296.64895225 | -0.1275 | 0.0162562499999999 | -2.19599625 |
| | $\sum(x_i - \mu_X)^2 \sum(x_i - \mu_X)^2$ =3629.25176475 | | $\sum(y_i - \mu_Y)^2 \sum(y_i - \mu_Y)^2$ =171.42156875 | $\sum(x_i - \mu_X)(y_i - \mu_Y) \sum(x_i - \mu_X)(y_i - \mu_Y)$ =130.35294125 |



AUTOBIOGRAPHY

1. Name : Ulfa Zakirah
2. Place/Date of Birth : Banda Aceh, 2 Oktober 2000
3. Gender : Female
4. Religion : Islam
5. Nasionality : Indonesian
6. Adress : Desa Cot Mesjid, Kec. Lueng Bata, Kota Banda Aceh
7. Marital Status : Single
8. Occupation/NIM : Student/180203111
9. The Parent
 - a. Father's Name : Syukri AR
 - b. Mother's Name : Surayani
 - c. Occupation : Laborer
 - d. Adress : Desa Cot Mesjid, Kec. Lueng Bata, Kota Banda Aceh
10. Siblings
 - a. Older sister : Mulia Sari
 - b. Older sister : Nurul Hidayati
 - c. Older sister : Miftahul Jannah
 - d. Younger brother : Muhammad Zaki
11. Educational Background
 - a. Elementary School : SDN 62 Banda Aceh (2006-2012)
 - b. Junior High School : MTsN Model Banda Aceh (2012-2015)
 - c. Senior High School : SMAN 1 Banda Aceh (2015-2018)
 - d. University : UIN Ar-Raniry Banda Aceh (2018-2022)

Banda Aceh, 15 Desember 2022

Ulfa Zakirah