



RESEARCH ARTICLE

REVISED Student teachers' perceptions of the collaborative relationships between universities and inclusive elementary schools in Indonesia [version 3; peer review: 2 approved]

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Abstract

Background: The collaborative relationship between universities and inclusive elementary schools has not been maximally practiced. The form of collaboration that universities with inclusive elementary schools have carried out is still limited to the need to complete lecture materials during the semester. There is a gap between the theory and practice obtained by student teachers at universities when they have to teach in inclusive elementary schools. As a result, they have not contributed to solving problems that occur in inclusive elementary schools. The collaborative relationship between inclusive elementary schools and universities directly implies that the success of inclusive education is determined by the competence of student teachers whose lecturers have successfully educated them in order to teach in inclusive elementary schools. Compared to the background that the inclusive education system is developing in Indonesia, the researchers investigated student teachers' perceptions at universities regarding inclusive university-inclusive elementary school collaborative relationships.

Methods: During data collection, an online survey and in-depth interviews of student teachers about individual experiences and their ideas about the form of inclusive elementary schools-university partnerships was conducted. The data analysis used was a thematic analysis technique.

Result: The result summarizes student teachers' statements, revealed three main themes: provision of inclusive education needs, research,

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Any reports and responses or comments on the article can be found at the end of the article.

and field practice. The student teachers revealed that the collaborative relationship between universities and inclusive elementary schools is essential in order to develop holistic, inclusive practices in a collaborative partnership based on input-needs, which has a two-way impact or benefit for both parties.

Conclusions: Furthermore, collaborative relationships must be in the form of long-term programs, such as continuous assistance, and adaptation to the development of inclusive education through lecture materials. To achieve successful inclusive education in Indonesia, we also recommended that the government make policies on multi-sectoral collaboration in order to support inclusive education.

Keywords

inclusive education, collaborative relationship, university, inclusive elementary school



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REVISED Amendments from Version 2

We have made some revisions to our article, according to the comments from the reviewers. We added several revisions, including 1) in the title section, we deleted word "form"; 2) Adding information related to some examples of research questions (on page 6); 3) Revising words related to some of the statements; 4) changes to the language by using a proofreader (native).

Any further responses from the reviewers can be found at the end of the article

Introduction

The relationship between universities and elementary schools is a positive form of collaboration to ensure the implementation of education can occur according to the policies set by the government. Several concepts of collaboration, such as the form of partnership between universities and elementary schools, provide benefits for achieving educational goals beneficial for both parties (Durnan, 2016; Samena et al., 2012). In the context of inclusive education, the collaborative relationship between universities and inclusive elementary schools is expected to increase the quality of inclusive education so that all education stakeholders can experience the results (Relajo & Pilao, 2018; Zagona et al., 2017).

In the context of Indonesia, the Ministry of Education, Culture, Research, and Technology has issued government regulation Number 13 of 2020, Article 5. It states that to accommodate special needs students (SNSs), universities must organize faculties of education and teacher training, especially study programs or departments of elementary school teachers and that education must provide inclusive education courses. This policy explains a great attachment and responsibility between universities and the competence of student teachers who will eventually teach in inclusive elementary schools. Therefore, there is an opportunity to establish formal collaborative relationships between universities and inclusive elementary schools. As a result, universities and inclusive elementary schools have a direct collaborative relationship in implementing inclusive education.

However, in practice, until now, the collaborative relationship between universities and inclusive elementary schools has not been maximally practiced. In particular, the form of collaboration that universities with inclusive elementary schools have carried out is still limited to the need to complete lecture materials during the semester. In addition, inclusive education courses in elementary school teacher education have been implemented as part of government regulatory policies (Done & Andrews, 2020; Duncan et al., 2021). The students' portion for further study still does not meet the specific competencies to teach in inclusive classrooms. Furthermore, various forms of collaborative relationships with inclusive elementary schools, such as internships and field practice, have not explicitly led to problem-solving in inclusive classrooms. Meanwhile, collaborative relationships with universities are still positioned as places or locations for research, internships, or field practice for inclusive elementary schools without any follow-up from all these forms of activity (Sanzo et al., 2011). As a result, they have not contributed to solving problems that occur in inclusive elementary schools. In addition, the reciprocal relationship between universities and inclusive elementary schools that can provide mutual benefits or benefits for each party has not been implemented optimally thus far (Haines et al., 2015; Messiou & Ainscow, 2020).

The collaborative relationship between universities and inclusive elementary schools must be adapted to the needs and portions appropriately and relevantly (Salisbury & McGregor, 2002). For this reason, it is necessary to develop forms of collaborative relationships that are expected to provide mutual benefits. A collaborative relationship involves interaction between two or more people to achieve a common goal, and is based on trust, respect, and shared responsibility (Cook & Friend, 2010). There are seven essential points involved in developing collaborative relationships: voluntary participation, creation of shared goals, shared resources, shared responsibility for crucial decisions, shared accountability for results, equal parity or contribution for all participants, and the trust and respect that arises (Friend et al., 1993). Moreover, the forms of collaborative relationships that are developed must be carried out for the long-term and meet sustainable interests (Florini & Pauli, 2018). Therefore, this study aims to explore student teacher's opinions on the form of collaborative relationships between universities and inclusive elementary schools in Indonesia. Regarding the research aims, the main of research questions is "how are the forms of collaborative partnerships between universities and inclusive elementary schools in Indonesia?". To the main focus in more detail on this research question, we created specific questions (see examples of questions on page 6).

Inclusive elementary school in Indonesia

Inclusive elementary schools in Indonesia are basic education services or schools with students aged 7-12 years that apply diversity as a condition that describes differences in various aspects such as race, religion, gender, language, and others. All students, including those with special needs, including those with disabilities have the potential for intelligence and

special talents to participate in education or learning in an educational environment together with students in general. So the emphasis of inclusive primary schools is on learning for all students, with all the obstacles, shortcomings, and advantages, different learning styles, and ways according to their ability to learn together in a conducive learning environment. Based on the [Ministry of Education, Culture, Research and Technology of Republic of Indonesia \(2021\)](#), the principles of inclusive education in inclusive elementary schools include: (1) equity and quality improvement, which is one of the strategies for equal distribution of education so that it can accommodate all children who have not been reached by other education services (2) need individuals who emphasize that children have different abilities and needs and must adapt to children's conditions (3) meaningfulness, which must be able to create and maintain friendly classroom communities, accept diversity and respect differences (4) sustainability for all subsequent levels (5) involvement, which involves all components of education including elementary school residents.

The inclusive elementary school support system in the implementation of inclusive education in Indonesia consists of: (1) inclusive education regulations in local governments such as governor, mayor, regent regulations related to the implementation of inclusive education including elementary schools (2) disability service units as stated in article 42 of the [Law Number 8 of 2016](#) concerning the function of disability service units at the basic level. Among others: a. improve the competence of educators and education personnel in regular schools in dealing with students with disabilities; b. assist students with disabilities in supporting a smooth learning process; c. develop compensatory programs; d. provide learning media and tools needed by students with disabilities; e. conduct early detection and early intervention for students and prospective students with disabilities; f. provide data and information on disability; g. provide consulting services; and h. develop cooperation with other parties or institutions in an effort to improve the quality of education for students with disabilities; (3) a resource center that aims to provide support to all schools where schools have difficulty in providing the best educational services for students with special needs in their schools supported by several experts so that their functions are maximized such as experienced teachers, special education teachers, therapists, psychologists and doctors; (4) non-government organizations (NGOs) that provide support for the development of education services for students with special needs including test services, assessments, teacher competency improvement through workshops/seminars related to inclusive education, research and various other types of support; (5) a special supervising teacher who functions as a supporter of regular teachers in providing special education services and/or compensatory interventions, according to the needs of students with special needs; (6) school committee support which has a strategic position in providing support for students with special needs/disability related to policies, funding support, educational services, supervision and follow-up on complaints, suggestions, criticisms, and aspirations from students, parents/guardians, and the community for educational services for students with special needs; (7) involvement of families who have an essential role in the success of education for their children, especially elementary school children with special need.

Methods

Research design

The type of approach used in this research was quasi-qualitative with a simple research design. According to [Cropley \(2019\)](#), quasi-qualitative research is a study with the main objective of describing a situation according to the problem objectively. Meanwhile, according to [Bungin \(2020\)](#), quasi-qualitative is a part of research that is still influenced by the influence of positivism which is still used in the presentation of theory, which is still deductive, so this research cannot be said to be fully qualitative. Still, it can be seen during the process of analyzing the data. So it is included in the quasi-qualitative research. Quasi-qualitative research is suitable for narrating the life of information sources that can be expressed descriptively. One type of quasi-qualitative research is simple research design (SRD). SRD is a research design used by a researcher to reflect on findings in the field by using theory to solve the problems encountered. The research procedure of SRD was carried out with five main steps, namely (1) Selecting the social context and determining the research question (Social context and research question); (2) Conducting a literature review (Literature Review); (3) Conducting research methods and collecting data (Research methods and data collection); (4) Analyzing data (Data Analysis); (5) Reporting research results (Reporting).

Participants

Participants in this study were 51 student teachers (STs) from four universities with teaching faculties and elementary school teacher education programs in Jakarta, West Java, Central Java, and East Java in Indonesia. The selection of the four provinces was based on areas with the most significant number of elementary schools in Indonesia and had universities with elementary school teacher education. The criteria for STs involved in this study include students who have attended lectures at least in semester 7 (at 3.5 years), received inclusive education courses, and participated in internships. Through courses and internships, it is hoped that the student-teacher can explain more deeply the problems that occur in inclusive elementary schools and consider the need for collaborative relationships between universities and inclusive elementary schools. A purposive sampling technique was used to distribute online questionnaires using Google Forms to representatives of research colleagues who have access to universities in the four provinces. [Table 1](#) is the profile of the participants.

Table 1. Profile of participants.

	Frequency	%
Gender		
Male	3	5.9
Female	48	94.1
Position of participant		
Teacher	17	33.3
Student teacher	34	66.7
Province		
West Java	14	27.5
Central Java	9	17.6
East Java	17	33.3
Jakarta	11	21.6

In the first stage, the researcher involved elementary school teacher education lecturers who gave inclusive education courses in 4 pre-selected provinces. The lecturers provided a Google Form link containing questions to students as respondents with the criteria to be able to fill out the Google Form. After entering data and the initial coding was made, the researchers chose five people from 51 respondents as participants for in-depth interviews to sharpen and confirm answers that were not found on the Google Form. The researchers selected interview participants by checking answers on the Google Form with the most detailed answer criteria related to research questions and objectives.

Data collection

Data collection was conducted in two stages. The first stage was to collect data from STs with the criteria explained in the participant section, using an online survey consisting of three main questions in an essay–open-ended questions–using Google Forms. The compiled questions were based on the literature relevant to the research objectives. Data were collected from July 25, 2021 - July 29, 2021, and involved all of the mentioned respondents.

The data collected from the Google Form, the result of the survey in the first step, the form transcript of the results of each respondent were used to compile the initial code. This initial code was used to create questions that would be used for interviews with selected participants. So the second step was semi-structured interviews with 5 of the 51 STs who responded to the survey. The researchers developed interview guidelines based on the initial code from the first stage. The purpose of the interview was to get a more in-depth and meaningful picture of data related to the research focus. The results of the interviews were entered back into the Nvivo system as Nodes and compiled with the results of previous surveys. The researchers have found a theme that fits the research objectives. Interviews were conducted for approximately 1 hour per respondent via WhatsApp applications from August 1, 2021 to August 3, 2021.

To access all respondents in data collection, we obtained permission from lecturers of inclusive education courses from four universities that have present inclusive education courses in the Elementary School Teacher Education Department in Jakarta, West Java, East Java, and Central Java. We asked permission from the lecturers and they agreed to carry out the data collection process through surveys and interviews. They provided their verbal and written consent due to the good relationship between the researcher and the Head of the Elementary School Teacher Education Departments at the four Universities. Survey responses and interviews were and are kept confidential to ensure that there is no conflict of interest in this study.

Instruments

The instruments used in the two stages of the study consisted of open-ended questions. The instrument in the form of an essay in Google Forms consisted of three open-ended questions. This essay was in the form of a question asking STs to express their ideas or opinions related to university collaboration with inclusive elementary schools based on the experience of inclusive practice that they had undergone thus far. Here are examples of questions on Google Forms provided;

- (1) How do you define the importance of a collaborative relationship between the University/Faculty (Teachers) and inclusive elementary schools?

- (2) What do universities and inclusive elementary schools need in terms of a form of collaborative relationship that can positively impact both parties?
- (3) What are the benefits for universities and inclusive elementary schools related to collaborative relationships that both parties can receive?

Meanwhile, we used three open-ended questions for the interview instrument focusing on deepening the questions on the results of the STs' opinions during the first stage. We directed this interview to explore further the needs for inclusive education, research, and field practice. Here we provide examples of interview questions:

- (1) Why is field practice essential for universities in inclusive schools? What needs must be met by universities in supporting preparation to become inclusive teachers in inclusive elementary schools?
- (2) Based on ST's understanding of the collaborative relationship between universities and inclusive elementary schools, what recommendations can be made regarding inclusive education development programs at universities to contribute to inclusive elementary schools?
- (3) Why is it important for universities to conduct research related to inclusive education in inclusive elementary schools?

Data analysis

The data analysis used was a thematic analysis technique in order to identify, evaluate and create the main themes that have been revealed by the researcher (Braun & Clarke, 2012; Galloway & Jenkins, 2009). In the first stage consisted of opinions from special STs were given a certain code in the form of keywords that match the interpretation of the sentence or certain terms so as not to overlap. Second, the researchers used the NVivo 12 program to facilitate coding and categories. Third, the researcher analyzed all codes and categories that allowed for merging and even splitting codes to become simpler codes and could answer research questions in the main themes.

The researcher also considered the credibility and dependability of the data and started from the data collection instrument used based on the relevant literature review. The instrument was research prepared by involving inclusive education experts. After the data was collected, member-checking (Lincoln, 1985) was also performed, which was used to check the credibility of the participants (especially when interviewing 5 STs). They were asked to clarify that their contribution was accurately reflected in the data. Meanwhile, researcher triangulation was also conducted to reduce bias by cross-examining participants (Anney, 2014). Thus, the involvement of all the researchers in examining data with the same problem would supported the integrity of the findings.

Ethical consideration

The research and community service institute of Universitas Djuanda has approved this research with the contract number: 143/LPPM/K-X/VII/2021. The researcher gave a letter of approval has also been given by the researcher to all respondents. Written consent to participate from the respondent was obtained in accordance with document 280/LPPM/K-X/XI/2021. Respondents gave their consent without force from anyone. Subsequently, in order to protect the rights and privacy of the respondents, all forms of data acquired will remain confidential.

Result and discussion

Result

Thematic analysis revealed three main themes, namely (1) provision of inclusive education needs, (2) research, and (3) field practice. All themes are summarized in [Figure 1](#).

Provision of inclusive education needs

The researchers identified five sub-themes related to the main theme, including employment, inclusive education courses, seminars and training, arrangement of facilities and infrastructure, and human resource development. First, the sub-theme of employment relates to the relationship between teacher graduates who will work in inclusive elementary schools. STs hope that the collaboration between universities and inclusive elementary schools will allow graduates to work in inclusive elementary schools. The internship experience or field practice in inclusive elementary schools for STs while still in university provides valuable assessments for inclusive elementary schools to accept teacher graduates to join and teach well. The following statement taken from an ST illustrates this perspective:

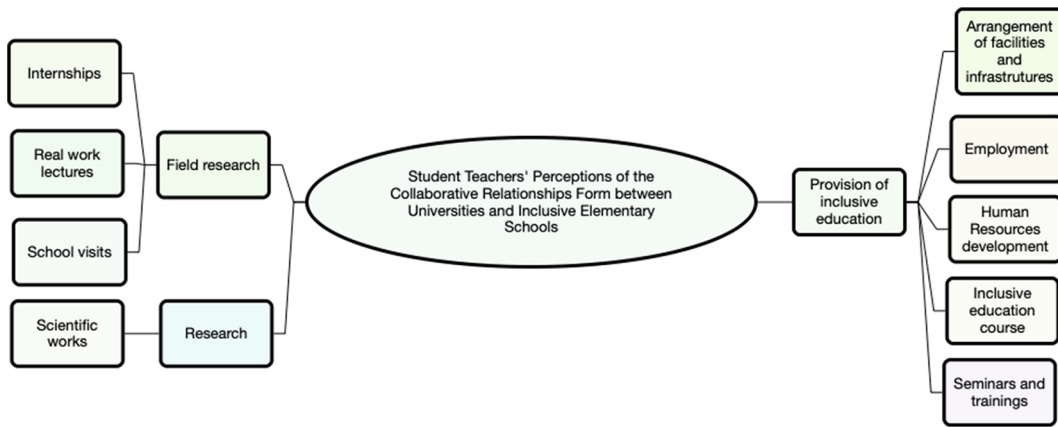


Figure 1. The main themes of thematic analysis (use Nvivo 12).

[...] if there is collaboration, it will make it easier for me to get a job to teach in inclusive elementary schools. With programs such as internships in inclusive elementary schools, schools will see how the quality of prospective graduates is, and it is not difficult to find new teachers if the school needs a teacher. (ST 4)

Second, the sub-theme of courses is inclusive education related to the importance of the inclusive education's course that must be carried out by study programs of the elementary school teacher education. As a study program that produces inclusive elementary school teachers who teach in inclusive elementary schools, STs hopes that every student teacher must deeply understand inclusive education so that it can be practiced in inclusive elementary schools. STs received information related to the importance of inclusive education courses from previous graduates. By receiving material from inclusive education courses, they could at least solve problems in inclusive classrooms. However, training activities must be conducted continuously by every inclusive teacher. The following statement was taken from an ST to illustrate this idea:

With the course's inclusion of inclusive education, I hope to practice inclusive education when I later teach in inclusive elementary schools and solve problems in inclusive classes. (ST 35)

Third, the sub-theme of seminars and training provides an overview of the importance of seminars and continuous training for inclusive elementary school teachers, organized by the faculty or even the university level. The faculty has many experts in the field of inclusive education to organize scheduled seminars and training according to the topics or problems faced by inclusive elementary schools. Problems that occur in inclusive classrooms must be solved as to positively impact the practice of inclusive education. Several STs explained this opinion:

One form of collaborative relationship that universities can provide is to providing seminars for inclusive teachers. (ST 2)

Collaboration provides training on the science of forms of instructional strategies, instructional tools, instructional media, and other supporting tools. (ST 5 & ST 17)

Fourth, the sub-theme of structuring learning facilities and infrastructure is important in fulfilling the need for inclusive practice. The form of collaborative relationship expected by STs is the provision of good physical facilities needed by inclusive elementary schools, which are still very limited. STs hope that inclusive elementary schools that receive children with special needs such as those who are blind, quadriplegic, or those who require special physical treatment, can have their rights fulfilled in inclusive schools. Limited funding for inclusive elementary schools in the provision of infrastructure is still a big problem that universities must solve. In addition, the availability of instructional media or instructional support tools that teachers will use to teach special needs students still requires great improvement. A statement from one of the ST:

Universities must help inclusive schools, especially the provision of facilities and infrastructure such as wheel-chairs for students with disabilities, learning media for blind students (Braille), or other learning media developed by universities. (ST 18)

Fifth, the sub-theme of human resource development is related to improving all human resources' competence that supports the implementation of inclusive education in inclusive elementary schools. Human resources consist of all

members of the inclusive elementary school community (e.g., principals, teachers, staff), including STs who will become teachers in inclusive elementary schools. In addition, lecturers who teach inclusive education courses in teacher education study programs also require self-development to keep up with the latest developments related to research results in the field of inclusive education, which has an impact on the novelty of lecture material for STs. One of the STs gave his opinion:

In my opinion, human resource development is critical, especially for all members of inclusive schools, to keep up with changes in inclusive education. This development can be aided by study programs at universities, through providing training. (ST 21)

Research

The research theme produces sub-themes related to scientific works, which results from collaboration between universities and inclusive elementary schools. From the STs' perspective, and as mentioned previously, inclusive elementary schools are the most frequently used places for research activities. Lecturers, classroom teachers, and STs can collaborate in mapping the problems they face (e.g., instructional methods, instructional media, etc.) in order to further conduct research to provide solutions to these problems. Success in research with this collaboration must include being disseminated to other inclusive schools in the form of scientific work and is expected to impact inclusive practice. Several STs explained this opinion in expressing the need for research:

[...] it would be very good to collaborate with inclusive elementary schools by conducting joint research between lecturers, students, and inclusive teachers. (ST 5)

Students and inclusive teachers can produce scientific papers from research whose results can be used by other inclusive schools, and very helpful in solving problems that have been occurring in inclusive schools. (ST 6)

Field practice

The sub-theme of field practice explains real work lectures, school visits, and internships. The sub-theme of real work lectures is a form of collaboration that provides opportunities for STs to be closer to the community in practicing and applying the science learned from lectures in the community. Real work lecture activities, especially in the field of education in areas that are not yet developed (rural) and the quality of education is still low, are expected to have an impact, especially in spreading awareness of inclusive practices. Students and field supervisors can provide real examples of inclusive practices, both in academic and non-academic aspects. The following examples taken from one ST illustrate the need for collaboration between universities and inclusive elementary schools related to real work lectures: real work lectures in villages, especially those with inclusive elementary schools, will provide good benefits for the inclusive elementary schools because many schools in villages do not understand inclusive education.

The sub-theme of visits to inclusive elementary schools is a form of a collaborative activity relationship that both parties can continuously carry out. The visit to the school aims to find information and map the problems of inclusive practice that inclusive teachers often face. According to STs, visits to inclusive schools can be an input for universities to update inclusive education lecture materials so that they are more relevant to the problems faced by inclusive elementary schools. An example of one ST's opinion can be illustrated in the statement below:

I think that a visit to an inclusive elementary school is beneficial so that universities get positive input, especially for the improvement and renewal of inclusive education courses. (ST 25)

The sub-theme of internship relates to the opportunity given to STs to try teaching in inclusive elementary schools as a way to gain relevant teaching experience that will be used when becoming an inclusive teacher. The collaborative relationship between universities and inclusive elementary schools is carried out by sending STs to inclusive elementary schools to perform their duties and responsibilities as prospective teachers in inclusive schools. Internship activities such as assisting teachers in learning in inclusive classrooms, class management, and class administration will provide work experience and situations that STs will face when they graduate from university. STs will practice teaching in the classroom with real conditions, solving problems directly with the classroom teacher. It will produce prospective inclusive teachers who are intentional in the future. One of the STs stated this during internship:

Universities can send their students to inclusive elementary schools to teach there so that students obtain real experience in teaching; together with teachers, they can solve problems in inclusive classrooms. (ST 17)

Discussion

In this study, the researchers conducted an online survey, interviewed student teachers from universities with study program of elementary school teacher education who are prospective teachers who will teach in inclusive elementary schools in Indonesia. The researchers asked questions related to the form of collaboration between universities and inclusive primary schools. Student-teacher statements were analyzed against the theoretical background and research findings in collaborative relations between universities and inclusive primary schools. The use of thematic analysis provided an opportunity for the researchers to investigate the further form of universities and inclusive elementary school collaboration in all aspects of inclusive education delivery.

The researchers identified several themes and sub-themes that reflect student teachers' opinions about the forms of collaboration that can be carried out between universities and inclusive elementary schools in Indonesia. Although the Indonesian government has made a policy to develop inclusive schools through the ministry of education and culture, every educational study program for students at universities must provide inclusive education courses as well. However, the impact of this policy only provides initial understanding to students. Therefore, university collaboration through study programs is still one-way, especially in fulfilling the obligations of completing student studies and the study program itself (Becht et al., 2020). There are several forms of collaborative relationships between universities and elementary schools in programs (Norris & Martin, 2021) such as internships and student research--completion of final assignments--but there is no specific collaboration with inclusive elementary schools, whose programs are also specifically directed to solving problems of inclusive practice (Passy et al., 2018). For example, the new inclusive elementary school is an inclusive education laboratory that provides opportunities for every student teacher to gain teaching experience in inclusive classrooms and gain a real picture of inclusive education problems. But unfortunately, universities' study programs have not followed up on these problems as a form of reciprocal collaboration that should be a source of problem-solving for inclusive elementary schools (Pollock & Briscoe, 2019).

Despite there being many research results obtained by universities related to inclusive education in inclusive elementary schools, the continuation and benefits of these research results have not been felt by inclusive elementary schools. The reason is that the collaborative relationship between universities and inclusive elementary schools is still in option, which tends to benefit the university, especially academically (Miller et al., 2017; Guadarrama et al., 2008). Therefore, it is necessary to change to the form of a two-way collaborative relationship that can help both parties, which is based on needs-input as a common way to solve inclusive education problems in elementary schools (Derzhavina et al., 2021; Kurth et al., 2020). Universities and inclusive elementary schools must be able to translate the needs of inclusive education together. This form of two-way collaboration provides opportunities and benefits to schools, such as increasing teacher competence through seminars or training programs organized by universities (Steel et al., 2019; Lynch, 2013) on an ongoing basis and joint procurement of inclusive school facilities and infrastructure. For universities, the results of research conducted by lecturers and students and results from student field practice are inputs needed to meet the needs of student teachers (Demirel et al., 2018). Furthermore, universities can design inclusive education courses based on empirical research results so that the relevance of courses-theoretically-with practice in inclusive elementary schools can be used to solve problems that inclusive elementary schools face (Zelina, 2020; Benade, 2019). The researchers believe that the results of this research can change and develop forms of collaborative relations between universities and inclusive elementary schools, which so far have not provided two-way benefits to both parties, and can be adapted to the development of inclusive education. In general, the researchers hope that the results of this study can contribute to the overall advancement of inclusive education in Indonesia.

Limitation

The limitations of this study are the determination of criteria that require that student teachers have received inclusive education courses, and conducted internships, especially in inclusive schools from the elementary school teacher education department. Meanwhile, not all elementary school teacher department receive inclusive education courses, so the number of respondents is still limited.

Conclusion

Collaborative relationships between universities and inclusive elementary schools are needed to develop holistic and inclusive practices. This relationship must be based on collaborative partnerships, which has a two-way impact or benefit for both parties. The form of collaborative relations is considered based on mutual input and needs practiced consisting of real programs as part of the development of inclusive education in Indonesia. The researchers recommend the results of this research to inclusive universities and inclusive elementary schools in order to establish collaborative relationships in the form of long-term programs, such as continuous or sustainable mentoring, and adaptation to the development of inclusive education through lecture materials. The researchers also recommend the government make policies on multi-sectoral collaboration in supporting inclusive education.

Moreover, there is a need for further research related to the model of sustainable and sustainable mentoring programs based on collaborative partnerships between universities and inclusive elementary schools.

Data availability

Figshare. Data of Questioner and Interview-Rasmitadila.docx. DOI: <https://doi.org/10.6084/m9.figshare.16782553.v1>

This project contains the following underlying data: - Dataset of Questioner and Interview from the participants.

Data are available under the terms of the [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by/4.0/) (CC-BY 4.0).

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References

- Anney VN: *Ensuring the quality of the findings of qualitative research: Looking at trustworthiness criteria*. 2014.
- Becht K, Roberts-Dahm LD, Meyer A, et al.: **Inclusive Postsecondary Education Programs of Study for Students with Intellectual Disability**. *Journal of Postsecondary Education and Disability*. 2020; **33**(1): 63–79.
[Publisher Full Text](#)
- Benade L: **Flexible learning spaces: Inclusive by design?**. *New Zealand Journal of Educational Studies*. 2019; **54**(1): 53–68.
[Publisher Full Text](#)
- Braun V, Clarke V: **Thematic analysis**. Cooper H, Camic PM, Long DL, et al., editors. *APA handbook of research methods in psychology, Vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological*. American Psychological Association; 2012; (pp. 57–71).
[Publisher Full Text](#)
- Bungin B: *Post-Qualitative Social Research Methods: Kuantitatif-Kualitatif-Mix Methods*. Jakarta: Prenadamedia Group; 2020.
- Cropley AJ: **Qualitative research methods: A practice-oriented introduction for students of psychology and education**. Riga, Latvia: Zinātne. 2019.
[Publisher Full Text](#)
- Demirel IN, Teyfur M, Çelik I, et al.: **Perspectives of Preservice Teachers on the Statements Related to Preservice Teachers and Competence of Lecturers**. *Journal of Education and E-Learning Research*. 2018; **5**(3): 185–192.
[Publisher Full Text](#)
- Derzhavina VV, Nikitina AA, Makarov AL, et al.: **Inclusive Education Importance and Problems for Students Social Integration**. *Propósitos y Representaciones*. 2021; **9**(SPE3): 1130.
[Publisher Full Text](#)
- Done EJ, Andrews MJ: **How inclusion became exclusion: Policy, teachers and inclusive education**. *Journal of Education Policy*. 2020; **35**(4): 447–464.
[Publisher Full Text](#)
- Duncan J, Punch R, Croce N: **Supporting Primary and Secondary Teachers to Deliver Inclusive Education**. *Australian Journal of Teacher Education*. 2021; **46**(4): 92–107.
[Publisher Full Text](#)
- Durnan VW: **Cases in partnership between independent schools and universities**. *Peabody Journal of Education*. 2016; **91**(5): 691–710.
[Publisher Full Text](#)
- Florini A, Pauli M: **Collaborative governance for the sustainable development goals**. *Asia & the Pacific Policy Studies*. 2018; **5**(3): 583–598.
[Publisher Full Text](#)
- Galloway FJ, Jenkins JR: **The adjustment problems faced by international students in the United States: A comparison of international students and administrative perceptions at two private, religiously affiliated universities**. *NASPA Journal*. 2009; **46**(4): 661–673.
[Publisher Full Text](#)
- Guadarrama IN, Ramsey J, Nath JL: *University and school connections: Research studies in professional development schools*. IAP; 2008.
- Haines SJ, Gross JM, Blue-Banning M, et al.: **Fostering family-school and community-school partnerships in inclusive schools: Using practice as a guide**. *Research and Practice for Persons with Severe Disabilities*. 2015; **40**(3): 227–239.
[Publisher Full Text](#)
- Kurth JA, Miller AL, Toews SG: **Preparing for and implementing effective inclusive education with participation plans**. *TEACHING Exceptional Children*. 2020; **53**(2): 140–149.
[Publisher Full Text](#)
- Law number 8 of 2016, article 42 regarding Persons with Disabilities.
- Lincoln Y: *Guba Eg. Naturalistic inquiry*. Beverly Hills (Cal.): Sage Publications; 1985.
- Lynch T: **Community collaboration through sport: Bringing schools together**. *Australian and International Journal of Rural Education*. 2013; **23**(1): 9–22.
- Messiou K, Ainscow M: **Inclusive Inquiry: Student-teacher dialogue as a means of promoting inclusion in schools**. *British Educational Research Journal*. 2020; **46**(3): 670–687.
[Publisher Full Text](#)
- Miller NC, McKissick BR, Ivy JT, et al.: **Supporting diverse young adolescents: Cooperative grouping in inclusive middle-level settings**. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*. 2017; **90**(3): 86–92.
[Publisher Full Text](#)
- Ministry of education, culture, research and technology of Republic of Indonesia: *Pocket book of inclusive education in elementary school*. 2021.
- Norris KE, Martin G: **Creating an Elementary to College Education Pipeline Through a University-School-Community Partnership**. *Journal of Higher Education Outreach and Engagement*. 2021; **25**(1).
- Passy R, Georgeson J, Gompertz B: **Building learning partnerships between schools and universities: An example from south-west England**. *J. Educ. Teach*. 2018; **44**(5): 539–555.
[Publisher Full Text](#)
- Pollock K, Briscoe P: **School principals' understandings of student difference and diversity and how these understandings influence their work**. *Int. J. Educ. Manag*. 2019; **34**: 518–534.
[Publisher Full Text](#)
- Relojo D, Pilao SJ: **Case Study of Inclusive Education Programme: Basis for Proactive and Life Skills Inclusive Education**. *J. School Educ. Techn*. 2018; **13**(3): 19–26.
- Salisbury CL, McGregor G: **The administrative climate and context of inclusive elementary schools**. *Exceptional Children*. 2002; **68**(2): 259–274.
[Publisher Full Text](#)
- Samena A, Park C, Bier ML, et al.: **Designs for simultaneous renewal in university-public school partnerships: Hitting the "sweet spot"**. *Teacher Education Quarterly*. 2012; **39**(3): 127–141.
- Sanzo KL, Myran S, Clayton JK: **Building bridges between knowledge and practice: A university-school district leadership preparation program partnership**. *J. Educa. Admin*. 2011; **49**: 292–312.
[Publisher Full Text](#)

Steel KM, Thompson H, Wright W: **Opportunities for intra-university collaborations in the new research environment.** *Higher Education Research & Development.* 2019; **38**(3): 638-652.
[Publisher Full Text](#)

Zagona AL, Kurth JA, MacFarland SZ: **Teachers' views of their preparation for inclusive education and collaboration.** *Teacher*

Education and Special Education. 2017; **40**(3): 163-178.

[Publisher Full Text](#)

Zelina M: **Interviews with teachers about inclusive education.** *Acta Educationis Generalis.* 2020; **10**(2): 95-111.

[Publisher Full Text](#)

Open Peer Review

Current Peer Review Status:  

Version 3

Reviewer Report 01 September 2022

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Mirna Nel 

Faculty of Humanities, North West University, Vanderbijlpark, South Africa

Please revise the following sentence:

"Regarding the research aims, the main of research questions is "how are the forms of collaborative partnerships between universities and inclusive elementary schools in Indonesia?". To the main focus in more detail on this research question, we created specific questions (see examples of questions on page 6)."

Change to:

The main research question was: "how are the forms of collaborative partnerships between universities and inclusive elementary schools in Indonesia?". To put the main focus of the research question in more detail secondary questions were developed (see examples of questions on page 6).

It should not be examples - it must be the questions that were used to guide the focus and implementation of the research and that are addressed and answered in the article.

Please replace "still" in the following text - the word is used too much

- o "...quasi-qualitative is a part of research that is still influenced by the influence of positivism which is still used in the presentation of theory, which is still deductive, so this research cannot be said to be fully qualitative. Still, it can be seen during the process of analyzing the data..."
- o There is still an inconsistent use of researcher and researchers. Since there are three authors I assume plural researchers were involved in the research study?

"Thus, the involvement of all the researchers in examining data with the same problem would supported the integrity of the findings" Please fix language

The researcher gave a letter of approval has also been given by the researcher to all respondents.. Please fix the language
Unfortunately, there are still many such basic language mistakes throughout the article. I fully understand that English is not the first language of the authors, but for publication it is important to demonstrate a good scholarly language ability. I do not have a problem with the application of the research and the consequent findings. It makes a good contribution to the field.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Inclusive education

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 08 Sep 2022

Rasmitadila Rasmitadila, Universitas Djuanda, Bogor, Indonesia

Dear Prof. Mirna Nel,

We thank to you for the evaluation of our work and appreciate the positive comments. We have made several revisions such as the suggestions you have given us. Some of the words "still" we have adjusted to the sentence. We also try to improve other words, to match the quality of the language understood by international readers.

Competing Interests: No competing interests were disclosed.

Reviewer Report 18 August 2022

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Urip Sulistiyo 

Universitas Jambi, Jambi, Indonesia

It has been revised as advised. Thanks

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Teacher Education, teacher professional development, and language teaching

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 2

Reviewer Report 18 July 2022

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**Mirna Nel**

Faculty of Humanities, North West University, Vanderbijlpark, South Africa

This article has been appropriately improved with regard to methodology. However, there are still some basic language issues that must be addressed throughout. For example:

- P3 the research questions is: there is only one question
- Look at the appropriate use of "the": Please use "the researchers" and not only researchers when reference is made to the researchers of this study
- Page 5. "present inclusive education courses" not " held inclusive education courses"
- Although the language has improved it is really important to do another thorough language edit.
- Not sure what it means " to make a permit"?
- Confidentiality is not applicable to only conflict of interest, but is much broader. Having a good relationship with an institution to get permission for data collection can be deemed an ethical issue.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Inclusive education

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 31 Jul 2022

Rasmitadila Rasmitadila, Universitas Djuanda, Bogor, Indonesia

Dear Prof. Mirna Nel,

We thank to you for the evaluation of our work and appreciate the positive comments. Please see below, for a point-by-point response to the reviewers' comments:

1. We have added information related to some examples of research questions (on page 6) so that readers can immediately check some research questions that can answer the main research questions.

2. We have also revised and added some words according to suggestions, such as "the" in the researcher; "present inclusive education courses,"; and the word "We made a permit" to "We asked permission from the lecturers." This statement explains that before we collect data, we ask the lecturers for permission regarding their consent to become participants in our research. If they agree, we will collect data (interview) with them.

3. We have completely re-edited the language for the whole article

Competing Interests: No competing interests were disclosed.

Reviewer Report 06 July 2022

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Urip Sulistiyo 

Universitas Jambi, Jambi, Indonesia

I have read the revision of the manuscript and I have no further comments to make as the authors have revised all necessary revision issues of the paper.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Teacher Education, teacher professional development, and language teaching

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 30 Jul 2022

Rasmitadila Rasmitadila, Universitas Djuanda, Bogor, Indonesia

Dear Mr. Urip Sulistiyo,

We thank you for the evaluation of our work and appreciate the positive comments.

Competing Interests: No competing interests were disclosed.

Version 1

Reviewer Report 06 April 2022

<https://doi.org/10.5256/f1000research.78810.r126822>

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**Mirna Nel** 

Faculty of Humanities, North West University, Vanderbijlpark, South Africa

The article has potential. It appears as if important research has been done that could contribute to teacher education which ensures that student teachers are adequately prepared for inclusive education.

- Unfortunately, this was an incoherent report of the research done. First of all it needs a thorough language editing with regard to sentence construction, concept definitions and the use of the correct terms in the context of the statements.
- Past tense should be used for research which is reported in an article as it is already conducted.
- The title needs re-thinking. Maybe leave out "form".
- There is not a clear literature review which substantiates a distinct problem statement. I could also not find the research question/s.
- Maybe add a description of what an inclusive elementary school entails.
- This was a qualitative study and it is nowhere stated. In a qualitative study, it is recommended that participants are used rather than respondents, but these two terms are used intermittently.
- There is no clear description of the sampling technique.
- Because there is not a distinctive problem statement and research questions, the link between the survey and interview questions with the focus of the research is not clearly aligned. This also results in the findings and discussion needing better construction to answer the research aim.
- With open questions there should not be a yes/no question such as "do you think..."
- This question does not make sense: 'What do you think the form of relationship or collaboration?'

If the article is adapted to provide a better coherent description of the research it has potential to be indexed.

Is the work clearly and accurately presented and does it cite the current literature?

Partly

Is the study design appropriate and is the work technically sound?

Partly

Are sufficient details of methods and analysis provided to allow replication by others?

Partly

If applicable, is the statistical analysis and its interpretation appropriate?

Not applicable

Are all the source data underlying the results available to ensure full reproducibility?

Yes

Are the conclusions drawn adequately supported by the results?

No

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Inclusive education

I confirm that I have read this submission and believe that I have an appropriate level of expertise to state that I do not consider it to be of an acceptable scientific standard, for reasons outlined above.

Author Response 16 May 2022

Rasmitadila Rasmitadila, Universitas Djuanda, Bogor, Indonesia

Dear Prof. Mirna Nel,

Thank you for allowing us the opportunity to submit a revised draft of the manuscript " Student teachers' perceptions of the collaborative relationships form between universities and inclusive elementary schools in Indonesia" for publication in the F1000Research.

We appreciate the time and effort that you dedicated to providing feedback on our manuscript and are grateful for the insightful comments and valuable improvements to our paper. We have incorporated most of the suggestions made by the reviewers. Please see below, for a point-by-point response to the reviewers' comments and concerns:

We have done some sentence editing using a proofreader (native) to improve the language in this article. For the title, we have made improvements by removing the word "form" so that it becomes better.

We have also added research questions, including a description of what inclusive primary

schools are. For the methods section, especially in the research approach, this is a quasi-qualitative study (the explanation is in the article), we use the word respondent (for the initial step), and in the second step (interview), we use participants related to the interview process.

For the questions in the questionnaire, we don't just use words with yes or no answers. Still, we ask respondents to give their reasons so that we get written answers that can also represent the respondent's thoughts, which we then elaborate on in the interview. But to make it clearer and more focused, in this revision, we have changed the form of the question with a sentence that leads to an open answer that allows us to answer the purpose or research question.

Thank you so much.
Best regards,

Rasmitadila, Rasmitadila

Competing Interests: Competing Interests: No competing interests were disclosed.

Reviewer Report 07 February 2022

<https://doi.org/10.5256/f1000research.78810.r119531>

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Urip Sulistiyo 

Universitas Jambi, Jambi, Indonesia

Dear Authors,

I have carefully read and reviewed the manuscript. The design and its writing are technically sound. However, several issues need to be addressed before it is suitable for indexing:

1. As the authors used purposive sampling technique, it is necessary to provide a table showing demographic information of the participants and provide reasons of nominating 5 out of 51 student teachers.
2. The author needs to provide a table showing the results of thematic analysis generating from NVivo 12 program.
3. Since the data are from open ended survey and interview, please provide details in a way the authors employed those two data both in data analysis and discussion.

Thank you, and good luck.

Is the work clearly and accurately presented and does it cite the current literature?

Yes

Is the study design appropriate and is the work technically sound?

Yes

Are sufficient details of methods and analysis provided to allow replication by others?

Partly

If applicable, is the statistical analysis and its interpretation appropriate?

Not applicable

Are all the source data underlying the results available to ensure full reproducibility?

Partly

Are the conclusions drawn adequately supported by the results?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Teacher Education, teacher professional development, and language teaching

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 16 May 2022

Rasmitadila Rasmitadila, Universitas Djuanda, Bogor, Indonesia

Dear Mr. Urip Sulistiyo,

Thank you for allowing us the opportunity to submit a revised draft of the manuscript " Student teachers' perceptions of the collaborative relationships form between universities and inclusive elementary schools in Indonesia" for publication in the F1000Research.

We appreciate the time and effort that you dedicated to providing feedback on our manuscript and are grateful for the insightful comments and valuable improvements to our paper. We have incorporated most of the suggestions made by the reviewers. Please see below, for a point-by-point response to the reviewers' comments and concerns:

1) Figure 1 is the result of data analysis using Nvivo 12. We use a mind map type of display data generated in Nvivo 12 (not a table) but have the concept of data analysis results between the two.

2) The data collected from the Google Form, which is the result of the survey in the first

step, and the form of a transcript of the results of each respondent, is made to compile the initial code. This initial code is used to make questions for interviews with selected participants. So the second step is semi-structured interviews with 5 of the 51 STs who responded to the survey. Researchers develop interview guidelines based on the initial code from the first stage. The purpose of the interview is to get a more in-depth and meaningful picture of data related to the research focus. The results of the interviews are entered back into the Nvivo system as Nodes and compiled with the results of previous surveys. Researchers have found a theme that fits the research objectives. Interviews were conducted for approximately 1 hour per respondent via WhatsApp applications from August 1, 2021, to August 3, 2021.

3) We have added the profile of the participants (demography) in the section on participant

Competing Interests: Competing Interests: None

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