### Jejak Pembelajaran: Jurnal Pengembangan Pendidikan

Vol. 8 No. 1 (Januari, 2024)

# COLLABORATIVE ASSESSMENT FOR LEARNING TOWARDS DISABILITY INCLUSIVE EDUCATION IN INDONESIA PRIMARY SCHOOLS THE INDONESIAN POLICIES ON GEDSI (GENDER, DISABILITY, AND SOCIAL INCLUSION) FRAMEWORK

Rahma Cahyani<sup>1</sup>, Muhammad Aris Fadillah<sup>2</sup>, Nurul Mutia Ramdhani<sup>3</sup>, Triana Lestari<sup>4</sup>

<sup>1</sup>Universitas Pendidikan Indonesia. E-mail: rahmachyni0304@upi.edu

<sup>2</sup>Universitas Pendidikan Indonesia. E-mail: arisfadillah16@upi.edu

<sup>3</sup>Universitas Pendidikan Indonesia. E-mail: nurulmutiaramdani11@upi.edu

<sup>4</sup>Universitas Pendidikan Indonesia. E-mail: trianalestari@upi.edu

#### INFORMASI ARTIKE

 Submitted
 : 2023-11-30

 Review
 : 2023-12-25

 Accepted
 : 2024-01-01

 Published
 : 2024-01-31

KEYWORDS

Collaborative Assessment, Inclusion Setting, Disability, Primary School, Indonesia

#### ABSTRACT

This study discusses the definition and trend of collaborative assessment that can be applied in inclusive primary schools. The discussion includes what is meant by collaborative assessment, forms of collaborative assessment and how the role of teachers in implementing collaborative assessment and its implementation in inclusive schools in Indonesia. The assessment aims to determine what kind of learning strategies are suitable for students, especially students with disabilities. The research method uses bibliometric analysis with data collection using google scholar from 2013-2023. The search results with the keywords "Collaborative Assessment", "Inclusion Setting", "Disability", "Primary School", "Indonesia" obtained 996 articles and visualized using the VOSviewer application. Research on collaborative assessment in Indonesian inclusive primary schools experiences ups and downs every year. After visualizing the data using VOsviewer, 22 terms were found which were divided into 5 clusters where the term assessment is mentioned 26 times, the term Indonesia 25 times, the term disability 22 times, and inclusive education 19 times. The results of the collaborative co-authoring analysis showed that 113 authors had contributed. The completion of this study leads us to the creation of future research, which will determine the subject of future research, specifically in the area of inclusive education.

#### **INTRODUCTION**

Inclusive education is education that upholds justice and social equality. All children, whether they are children with special needs or normal children, they will all receive the same education. The aim of education is to develop and grow students' thinking (intelligent), social and personal potential to a higher level by providing them with fair access to education (Mukminin et al., 2019). Inclusive education was created so that all children, especially in Indonesia, receive proper and equal education, so that their potential and abilities can develop and benefit society in the future. Inclusive education was created to be an effort to increase student activity and participation in school, apart from that, inclusive education was also created as an opportunity for equal distribution of education and can improve the quality of education (Sumantri et al., 2016). Inclusive education developed focused on kids with particular needs in the school environment has become an agenda as a target in compulsory education, this aligns with Article 24 of the UN convention on the Rights of Persons with Disabilities which has provided a very clear understanding of education for all (Lindner & Schweb, 2020).

To implement inclusive education, several assessments are needed before learning is carried out. These assessments aim to determine what kind of learning strategies are suitable for use with students. This assessment is also called intervention, in elementary schools, especially early grades, simple interventions are needed to identify whether there are serious problems or not for each student. If a disability is identified, a teacher must know what kind of learning can be applied to students with disabilities. There are several previous studies in the field of education using bibliometric analysis which can be seen in (Table 1), relating to developments and research on collaborative assessment for children with disabilities in inclusive education which is focused on Indonesia. Bibliometrics is a method that has been successfully used to examine prevailing research directions and has been implemented in various scientific disciplines (Table 2).

Table 1. Previous studies of bibliometric analysis in education

No	Topic Discussion	Educational Contribution	Research Year	References
1.	Bibliometric analysis of special needs education keyword using VOSviewer indexed by google scholar.	Special needs education.	2023	(Al-Husaeni et al., 2023)
2.	Indonesia: Moving away from segregated education to inclusive education for people with disabilities.	Inclusive education for people with disabilities.	2020	(Juniar et al., 2020)
3.	Aiming at inclusive workplaces: A bibliometric and interpretive review at the crossroads of disability management and human resource management.	Inclusive workplaces.	2023	(Palumbo et al., 2023)
4.	What is the correlation	Correlation	2022	(Wirzal &
	between chemical engineering	between		Putra, 2022)

	and special needs education from the perspective of bibliometric analysis using vosviewer indexed.	chemical engineering and special needs education.		
5.	Home–School Collaboration in Assessment, Placement, and Individual Education Plan Development for Children With Special Education Needs in Macao: The Views of Parents.	Home school for children with special education needs.	2021	(Coreia et al., 2021)
6.	The effectivenes of two-day inclusion workshop on teachers' attitudes, understanding, and competence in inclusive education.	Inclusion workshops for teachers.	2014	(Sunardi et al., 2014)
7.	Collaborative teaching in heat transfer for slow learners students.	Collaborative teaching for slow learners students.	2020	(Widodo et al., 2020)

Based on the results of journal searches using Publish or Perish, it was found that there were still few meta data findings from bibliometric studies on this topic, therefore there is not only bibliometric analysis, but research that analyzes topics that can help the development and research of Collaborative Assessment is also included in the table. 1.

Table 2. Previous studies of bibliometric analysis.

No	Title	Topic Discussion	Ref
1.	Trends in scientific publication of traditional game learning models in physical education and sports in Indonesia: A bibliometric analysis.	Using bibliometric analysis, this research explains how traditional games are used in physical education and sports.	Alpen et al. (2022)
2.	A Bibliometric analysis of chemical engineering research using vosviewer and its correlation with Covid-19 pandemic condition.	This journal explains the relationship between chemical engineering and the Covid-19 pandemic conditions using VosViewer (bibliometric analysis).	Nandiyanto et al. (2021)
3.	Research trend on TPACK through bibliometric analysis (2015- 2019).	Using the bibliometric analysis method, this research analyzes TPACK and explores the contribution of Indonesian researchers to the Scopus database	Suprapto et al. (2021)

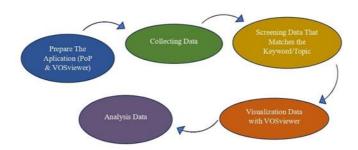
No	Title	Topic Discussion	Ref
		from 2015 - 2019.	
4.	A Bibliometric Analysis of Chemistry Industry Research Using Vosviewer Application with Publish or Perish.	This research aims to carry out a bibliometric analysis of the chemical industry using Vosviewer with POP, the chemical industry is an active and very large industry, this industry uses materials or chemical compounds that come from nature.	Kurniati et al. (2022)
5.	A Bibliometric Analysis: Computer Science Research From Indonesia. A Bibliometric Analysis:	Using bibliometric analysis, this journal analyzes how much computer science research there is in Indonesia.	Supriyadi. (2022)
6.	Research Trend of Critical Thingking in Science Education.	Analyzing research trends regarding CTS from 2017-2022 using bibliometric analysis and Scopus. Indonesia ranks second in contributing to CTS research.	Misbah et al. (2022)
7.	A Bibliometric Analysis Related to Mathematical Research through Database Dimensions.	This research analyzes how bibliometric analysis relates to research mathematically with dimensional databases.	Suharso et al. (2021)
8.	Computational Bibliometric Analysis of English Research in Science Education for Students with Special Needs Using Vosviewer.	This research analyzes the trends in English language research in science education for children with special needs.	Sukyadi et al. (2022)
9.	Bibliometric Analysis of Ethics and Online Learning Using VOSviewer Software. Bibliometric Analysis in	This research shows what ethical research and online learning are like in the past, present, and future.	Susilowati et al. (2022)
10.	Astrophysics: Overview of Education, Religion, and Local Wisdom in 2016-2021.	Analyzing astrophysics education which is included in the physics education section and is an astronomy program.	Zainuddin et al. (2021)
11.	A bibliometric analysis of collaboration skills in	Analyze collaboration skills which are part of one of the indicators of	Marmoah et al. (2022)

No	Title	Topic Discussion	Ref
	education (2019-2021).	21st century skills.	
12.	Digital libraries during Covid-19 pandemic: A Bibliometric analysis and information mapping.	This research using bibliometric analysis explains the benefits of digital libraries during the Covid-19 pandemic.	Pambayun. (2021)
13.	Transformation of economic education (bibliometric analysis).	This research analyzes how economic education can follow the dynamics of changing economic phenomena.	Kurniadi. (2023)
14.	Science mapping for nutrition education in sports recovery research: A bibliometric analysis.	Using bibliometric analysis, this study describes research trends regarding the literature on sports nutrition as recovery.	Bahri et al. (2022)
15.	Bibliometric analysis of inclusive public services research in Indonesia.	Identifying research trends regarding inclusive public services in Indonesia.	Simanjuntak et al. (2023)

#### **METODS**

All information in this bibliography was obtained from articles released from 2013 until 2023, and these sources were accessible through Google Scholar. We collected the data using the reference management application "Publish or Perish" on September 25, 2023. After collecting the data, we saved it in two versions, that are \*.ris (for data analysis with VOSviewer app) and \*.csv (for data processing with Microsoft Excel). We also used the VOSviewer application to visualize the data, which helped us depict the current research direction from the pre-processed data set. All citations in this bibliography are from articles published between 2013 and 2023 indexed by Google Scholar.

We employ the VOSviewer application as a tool to view the data that make up the network from the pre-processed data sets after successfully collecting the data. To illustrate the latest research trends, VOSviewer visualization is very useful (Tang et al., 2023). aims to create a scientometric network that illustrates productivity. By using the VOSviewer tool, bibliometric analysis can help to determine the quantity and current state of a research field (Kurniati, Saputra, & Fauzan, 2022). For the purpose of searching the database, the keywords "Assessment", "Inclusion Settings", "Disability", "Primary School", and "Indonesia" were used. Figure 1 provides additional clarification regarding the process undertaken during the bibliometric analysis investigation.



#### RESULT AND DISCUSSION

#### What is meant by Collaborative Assessment

Collaborative assessments are assessments conducted collaboratively by teachers of children with disabilities in inclusive education. Because inclusive education integrates children with disabilities into the regular classroom, the assessments used must be collaborative. This collaborative assessment is used by teachers to build the activeness of students with disabilities so that they can be active during the learning process. In addition, students with disabilities can interact with the teacher or fellow students. Collaboration can also be interpreted as acceptance from regular students towards students with disabilities through the learning process (Muniroh et al., 2017).

Collaborative assessment as a form of educational innovation and alternative to single assessment. Because collaborative assessment does not only involve teachers, this assessment is more student-centered which involves student participation in the assessment process, including self-assessment and assessment by classmates. Assessment methods should actively involve students and be student-focused.

Therefore, assessment practices that are only results-oriented should be avoided. Relying on a single assessment model such as a written exam alone can result in errors in didactic decision making related to understanding student competencies, both planning learning, implementing it, and evaluating the results. (Utomo in Sugiarto, Kartono, & Mariani., 2021).

#### What are the forms of Collaborative Assessment in Inclusive Education

Collaborative assessment in inclusive education is an approach that involves various stakeholders, including teachers, students, parents and other professionals, in the process of assessing the development and progress of students with special needs (Handayani, Wulandari, 2021). The main purpose of collaborative assessment is to enhance learning experiences, encourage student engagement, and improve educational outcomes by involving all relevant parties in the assessment and feedback process. Here are some forms of collaborative assessment, including:

#### a. Collaborative assessment early intervention

Early intervention requires teachers and other professionals to conduct an initial assessment together to better identify the student's needs. This may include observations, tests, and interviews with students and parents. Teachers and parents meet regularly to discuss student development, create support strategies, and evaluate student progress. This is an important form of collaborative assessment to identify the needs and success of students with special needs. Teachers utilize ongoing formative assessments to monitor student progress throughout the school year and to modify teaching methods to suit individual student needs (Sumantri, 2016).

#### b. Teacher, parents, and professional collaboration

In some cases, collaborative assessment involves collaboration between teachers, educators and specialists to meet the needs of students with diverse learning needs, such as students with special needs or in inclusion classes. Therefore, collaboration in assessment is needed, consisting of various professionals such as teachers, psychologists, physical therapists or other therapists, and also involving parents (Yuliawanti, 2019). They work together to evaluate students' special needs and plan an individualized education program (IEP).

#### c. Evaluation as development of Individualized Education Program/ IEP

The IEP development process involves collaboration between teachers, parents and, if necessary, specialists. In this case, learning objectives, modifications, and specialized support for the student with special needs are determined together. In the assessment of students with disabilities, teachers and other support teams should periodically evaluate the student's progress in achieving the goals stated in the IEP. If necessary, adaptations can be made to ensure that the support that has been provided is able to produce learning progress in making adjustments according to the student's needs. (Dwimarta, 2016).

#### d. External Services

Collaboration between teachers and other school staff is one form of teamwork to discuss support strategies, share information and coordinate efforts in supporting students with special needs. At times, students with special needs may require the services of outside professionals such as physical therapists, speech therapists or special counselors. Collaboration with these outside resources is important to provide holistic support for students with disabilities. In inclusive education, collaborative assessment is essential to ensure that every student receives support that is appropriate to their needs and has the opportunity to reach their full potential.

By involving various stakeholders, we can ensure that inclusive education becomes more effective and inclusive (Afdal, 2015). At its core, collaborative assessment creates an inclusive evaluation environment that improves learning experiences and student outcomes. This approach involves all parties, encouraging open communication, data-driven planning, and effective support for individual growth (Rahmawan, 2020).

#### Why Collaborative Assessment Is Important in Inclusive Education

Collaborative assessment plays an important role in inclusive education. To plan effective learning for inclusion students, planning needs to be done by teachers and several elements engaged in the field of inclusion, in planning cannot be done directly without seeing information and characteristics clearly according to the condition of each child, a complete set of information from a child who has a disorder is obtained in the assessment process. The impact is seen in the medical mindset of disability primarily as an individual deficiency that needs to be treated, corrected and integrated. The accommodations model views inclusive education as something that needs to be reduced in assessment, not enriched (Niemienin, 2021). Collaborative assessment can act as a certain medicine that can cure a disease, i.e. a certain type of disability, such as dyscalculia, must be paired with an adequate assessment, such as a calculator. Collaborative assessment provides an opportunity to avoid procedural risks outlined in the form of deep exclusion (Aschieri et al, 2023).

In planning interventions for children, collaborative assessment provides assistance in this regard because the assessment does not look at one aspect only, but considers several other aspects that may not be seen if done with one assessment alone. The importance of the teacher's role in implementing collaborative assessment emphasizes collaboration between students to support and encourage each other's learning. This aims to identify students who need additional support (Hermanto & Pamungkas, 2023).

## How to Implement the Collaborative Assessment Program (the role of teachers in schools) for people with disabilities.

The implementation of the Collaborative Assessment program cannot be separated from the duties of teachers in schools. The teacher's role in implementing this program is very important, because the teacher is the main key in learning at school. Teachers have very complex responsibilities in this case, they must provide comprehensive attention and teaching to students, including students with disabilities (Hermanto & Pamungkas, 2023). Before implementing this program, teachers need to have high competence, commitment and tolerance because implementing the learning process for children with disabilities requires a lot of patience and creative and innovative thinking. In order for the teacher's role in running this program to run well, the school must help in accommodating students, such as providing facilities and infrastructure that are friendly to children with disabilities. Teachers must also be responsible for creating inclusive classrooms that respect differences and determine cooperative learning models (Efendi, 2018).

Teachers must also have a variety of strategies. This strategy is used by teachers to provide access for students with disabilities, where we can see that if access is available then the collaborative assessment program that is being implemented can run well. There are two strategies that can be used by teachers to provide access for students with disabilities, including; Physical Accessibility and Non-Physical Accessibility.

Physical accessibility is access that can be seen from its form and is used for students with disabilities in this school in the form of facilities and infrastructure that are complete and easily accessible to students, besides that it can also be in the form of providing media and learning resources for each student's learning needs. While nonphysical accessibility is access that cannot be seen in terms of its form, this access is in the form of providing special services according to student needs, collaboration between parents and schools, differentiated learning management, appropriate assessment programs, and instilling character values in students. This strategy is in line with the collaborative assessment program where the teacher's role in learning is to provide an assessment that suits the needs of each student (Hermanto & Pamungkas, 2023). Meanwhile, non-physical accessibility is access that cannot be seen in terms of its shape, this access takes the form of providing special services according to student needs, collaboration between parents and schools, differentiated learning management, appropriate assessment programs, and instilling character values in students. This strategy is in line with the collaborative assessment program where the teacher's role in learning is to provide assessments that suit the needs of each student.

#### **Collaborative Assessment**

## How is Collaborative Assessment Implemented and what are the forms of collaborative assessment in inclusive schools in Indonesia

Assessment is the process of extracting information to create a psychological picture of the child which includes aspects such as symptoms and the level of obstacles experienced, their potential and limitations, and the type of assistance needed by the child. Assessment as a basic step to develop programs that support the success of complex learning (Lidz in Kartini & Aprilia, 2022). Collaborative in Latin Collabre which means working together or working together, collaboration of regular students and students with disabilities in providing rewards during the learning process with good results, and the impact of collaboration can improve good results, reviewing regular students who are still available to interact with students who have intellectual challenges to be able to stimulate empathy and social sympathy and have sensitivity and can be applied with fun activities. In short, when regular students gather with students with special needs in one class, it has an impact on the formation of new characters in the learning process (Lidz dalam Kartini & Aprilia, 2022).

Previous research by Hadwin, Jarvella, & Miller showed that Socially Shared Regulation of Learning (SSRL) involves collaborative learning that provides improvements in cognitive, behavioral, motivational, and emotional conditions (Muniroh, Apriyanti, Musayaroh, & Yuliana, 2017). In the context of inclusion, collaboration is a systematic process that provides opportunities for students with disabilities that are realized in the form of team teaching, collaborative consultation, intervention teams, and interdisciplinary student service delivery. (Muniroh, Apriyanti, Musayaroh, & Yuliana, 2017).

#### a. Team Teaching

Team teaching involves teachers collaborating in the same classroom and sharing responsibility for the teaching process. Team teaching has a number of advantages, including reducing the teacher-student ratio in the classroom, providing more effective individualized instruction to students with special needs with the help of two teachers, and improving their skills through collaborative knowledge exchange between fellow teachers

#### b. Collaborative Consultation

This process is described as a problem-solving process involving two or more people acting as consultants in an effort to benefit one or more individuals for whom they are responsible in a given context.

#### c. Intervention Team

This team consists of educators who meet on an ongoing basis to discuss the behavioral and academic progress of students who have not received special education services. The aim is to minimize the number of inappropriate referrals for inclusive education.

#### a. Multidisciplinary student service provider team

This team consists of teachers, administrators, parents and specialists such as consultants, therapists and psychologists. It reviews formal and informal assessment data to determine whether a student is eligible for special education (Rosita, Suherman, dan Nurhaqy, 2022). The implementation of assessments in inclusive spaces has several challenges, especially for regular teachers, including the low ability of regular teachers to conduct assessments both in developing instruments and implementing them, difficulties in learning programs, lack of collaboration between regular teachers and GPK, and improvement of competency services (Kartini & Aprilia, 2022).

Collaborative Assessment includes what is done to see initial abilities and learning outcomes there are assessments that support collaborative assessment in inclusion settings including:

#### a) Self Assessment

Self-assessment is defined as the act of description and evaluation to measure the extent of ability and work done by the student himself which refers to the tools used by individuals to describe his personal experiences including aspects of emotions, motivation, social interaction and attitudes. In the context of education, it aims to know and evaluate one's own performance and make more comprehensive adjustments in learning to achieve one's potential in certain subjects (Yudha, Masrukan, & Djuniadi., 2014). Self-assessment is summative in nature, with the evidence presented being very useful, the mechanism correlates with the cognitive and affective abilities of the individual, as it will influence aspects of motivation and better formulated learning planning (Andrade, 2019).

#### b) Teacher Assessment

Teacher Assessment is a method that can determine a student's level of knowledge and skills in a particular area by assessing the student's current achievement. This assessment is initially conducted by the class teacher, but if there are further concerns, the principal, consultants and special educators may be consulted. This assessment can be linked to academic standardized tests by evaluating basic skills in inclusion students, such as listening, reading, writing, and arithmetic (Wardhani, 2020).

#### c) Peer Assessment

Peer Assessment is an assessment process that involves peers in assessing one's performance using rubric guidelines (Chukwuyenum & Adunni, 2013). Peer tutoring can improve a child's academic performance with acceptance among their peers. This strategy can be linked to support in inclusive education because it emphasizes participation and collaboration between teachers, social interaction between regular students and students with special needs plays an important role to appreciate differences and improve, the role of parents and peers is equally important, for implementation can be done by pairing students who have better understanding with students who have intellectual limitations (Shanmugam, 2021).

A review of interventions examining the effect of peer support on student academics emphasized that the communication process between students on average 32.6% improved when engaging with peers, especially forms of ID (Eberli, 2018).

#### **Result Metrics**

The following tables present the results of a search for published papers on collaborative assessment for inclusive education learning for people with disabilities in primary schools in Indonesia. This study covers publications from 2013 to 2023, with a total of 996 papers examined and their metadata processed. The total number of citations of all publications on collaborative assessment for disability-inclusive education learning in Indonesian primary schools found in the Google Scholar database was 35,839. Furthermore, the average number of citations per year was 3,583.90, and the average citation per article was 35.98.

The H-Index for these publications, signifying the impact of their research, as indexed by Google Scholar, was 87, accompanied by a G-Index of 134. The H-Index is a measurement used to evaluate the influence of a researcher's scholarly publication (Cormode et al., 2013). The H-Index is calculated based on the total citations received by a researcher's article. In this study, the H-Index was set at 87, indicating that there were 87 papers that were cited at least 87 times.

Tabel 4. Results of the publication of metrics on collaborative assessment in Indonesia.

Publication years	2013-2023
Citation years	10 (2013-2023
Papers	996
Citations	35839
Cites/year	3583.90
Cites/paper	35.98
H-index	87
G-Index	134
h1, norm	56
h1, annual	5.60
hA-index	40

#### **Annual Publication Report**

Figure 2 represents published annual journal reports on collaborative assessment in Indonesia. From the results of Figure 2, it can be seen that research on collaborative assessment has increased but not significantly, in 2013 there was only 1 article that discussed the topic, from 2012-2015 it increased but not high, remaining at a low number, in 2016 it fell to the lowest point, in 2017 it experienced a rapid increase from the previous year, namely 6 articles, 2018 experienced an increase of one article to 7 articles, in 2019 and 2020 it decreased with the number of articles at 4, 2021 became a triumph because it was at the highest point among the previous year's calculations with the number of articles 12, for 2022 it decreased but not too significant with the number of articles 8 and in 2023 it decreased from year 6 with the number of articles 6. And so on. and so on. and so on. In 2023 it can be seen that this year has decreased, this can occur because the data collection time has not yet reached the end of the year, not all of 2023 has been completed, this can allow 2023 to increase with the topic of collaborative assessment in Indonesia.

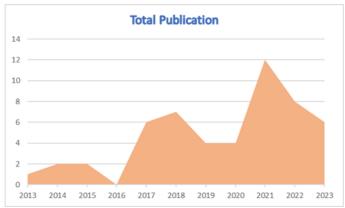


Figure 1. Trends in annual collaborative assessment publications in Indonesia Article trends based on the number of citations

Table 5 presents the publication of articles on inclusive education for persons with disabilities or children with special needs. The article data in Table 5 shows that the article by Rapisa et al. (2021) is the most cited article in the first place with 333 citations published by the ICSAR Journal. Meanwhile, in second place is an article by Trisnani et al. (2023) with 308 citations published by the Journal for ReAttach Therapy and Developmental Diversity.

Table 5. Inclusive education in Indonesia topics data.

No	Cites	Authors	Title	Year	Source
1	333	Rapisa et al.	Identification of children with special needs in inclusive schools.	2021	Journal of ICSAR
2	308	Trisnani et al.	Self-Esteem problem on slow learners students and strategies to solve it in inclusive schools.	2023	Journal for ReAttach Therapy and Developmental Diversities
3	84	Mohammad Efendi	The implementation of inclusive education in Indonesia for children with special needs:  Expectation and Reality	2018	Journal of ICSAR
4	83	Efendi et al.	Inclusive education for student with special needs at Indonesian public schools	2022	International Journal of Instruction
5	78	Rasmitadila et al.	Exploring Lecturers' Perspectives for Inclusive Elementary School Mentoring Program Based on University-School Collaborative Partnership	2022	Journal of education and e- Learning Research

No	Cites	Authors	Title	Year	Source
			(USCP) in Indonesia		
6	71	Budiarti & Sugito	Implementation of inclusive education of elementary schools: a case study in Karangmojo Sub-District, Gunungkidul Regency	2018	Journal of Education and Learning (EduLearn)
7	64	Maryanti R	Assessment of mathematical abilities of students with intellectual disabilities during the Covid-19 pandemic	2021	Indonesian Journal of Community and Special Needs
8	58	Hakiman et al.	Religious instruction for students with autism in an inclusive primary school	2021	International Journal of Learning, Teaching Educational Research
9	58	Lutfi et al.	Assesment for inclusion in higher education: promoting equity and social justice in assessment	2023	Social Science Journal
10	37	Kartini & Aprilia	Challenges and opportunities for regular teachers in the implementation of assessments for students with special needs in inclusive education provider school	2022	Journal of Education for Sustainability and Diversity

#### **Co-occurrences analyst**

Co-occurrences analysis is a study that focuses on how often an event occurs with high frequency (Li et al., 2018). In this research, an analysis of the co-occurrence of words or phrases and authors from publications discussing collaboration assessment and inclusive education in Indonesia was carried out using bibliometric analysis via the VOSviewer application. In each analysis, it is visualized through images of the relationships between nodes. There are three types of visualizations presented in this study to see how frequently words or terms and authors appear in collaborative evaluation and research on inclusive education in Indonesia, including; Network visualization (Figure 2), Overlay visualization (Figure 3), Density visualization (Figure 4).

Figure 2 displays network visualization in collaborative assessment research and inclusive education in Indonesia. Figure 2 shows the relationship between words that appear in research on collaborative assessment and inclusive education in Indonesia. These words were limited to a minimum of 3 occurrences, so 22 terms were found.

The 22 terms were divided into 5 clusters with the term assessment appearing 26 times, the term Indonesian 25 times, the term disability 22 times, and inclusive education 19 times.

- 1) Cluster 1 in red has 7 items: collaboration, disability, education, inclusion, inclusive education, special educational need, and study.
- 2) Cluster 2 in green has 6 items: assessment, child, curriculum, identification, implementation, special needs.
- 3) Cluster 3 in blue has 5 items: development, inclusive school, intellectual disability, student, teacher.
- 4) Cluster 4 in yellow has 3 items: inclusive schools, Indonesia, school.
- 5) Cluster 5 in purple has 1 item: children.

Figure 3 displays an overlay visualization geometry, where in this visualization the year of research on collaborative assessment and inclusive education trends in Indonesia was carried out. Based on Figure 3, it is noticeable that the trend of emerging terms starts from vulnerable 2019 - 2021. There are several terms that have recently emerged, namely implementation, inclusion, curriculum, and children. Figure 4 displays a visualization of the density of publications on collaborative assessment and inclusive education in Indonesia. Based on Figure 4, it is noticeable that the yellow circles show how often the term appears and is used in discussing articles on collaborative assessment and inclusive education in Indonesia. Increasingly the term is used, the brighter the yellow color will be in the density visualization.

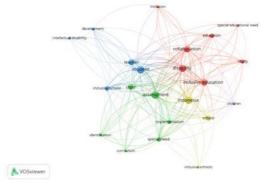


Figure 2. Network visualization in publication on collaborative assessment and inclusive education in Indonesia

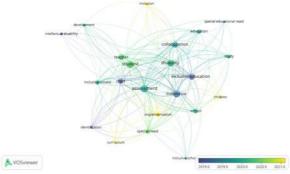


Figure 3. Overlay visualization in publication on collaborative assessment and inclusive education in Indonesia

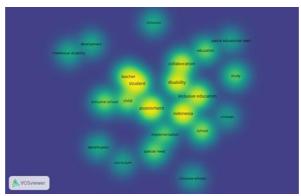


Figure 4. Density visualization in publication on collaborative assessment and inclusive education in Indonesia

Table 6. A list of authors contributed to article about inclusive education in Indonesia (2013-2023).

2023).					
Author	<b>Total of Document</b>	Total Link Strength	Cluster		
Dewantoro	1	3	1		
Efendi	2	3	1		
Pradipta	1	3	1		
Ummah	1	3	1		
Jaya	1	3	2		
Kasirah	1	3	2		
Maulidina	1	3	2		
Taboer	1	3	2		
Akhlan	1	2	3		
Nursifa	1	2	3		
Ratnengsih	1	2	3		
Anku	1	2	5		
Gyasi	1	2	5		
Okrah	1	2	5		
Hidayah	1	2	12		
Ramli	1	2	12		
Trisnani	1	2	12		
Jr, fp panopio	1	2	14		
Tan	1	2	14		
Villareal	1	2	14		
Asri	1	2	20		
Rasmitadila	1	2	20		
Reza	1	2	20		
Apriyanti	1	2	6		
Muniroh	1	2	6		
Musayaroh	1	2	6		
Damastuti	1	2	8		
Putri	1	2	8		
Rapisa	1	2	8		
Bakhtiar	1	2	10		
Famelia	1	2	10		
Goodway	1	2	10		

Humaira 1 Rachmadtullah 1 Samsudin 1 Reyes 1 Vidal, cb 1 Vidal, js 1 Hermanto 1 Pamungkas 1 Amalia 1 Saddhono 1	2 2 2 2 2 2 1 1	19 19 19 21 21 21 30
Samsudin1Reyes1Vidal, cb1Vidal, js1Hermanto1Pamungkas1Amalia1Saddhono1	2 2 2 2 1	19 21 21 21
Reyes1Vidal, cb1Vidal, js1Hermanto1Pamungkas1Amalia1Saddhono1	2 2 2 1	21 21 21
Vidal, cb         1           Vidal, js         1           Hermanto         1           Pamungkas         1           Amalia         1           Saddhono         1	2 2 1	21 21
Vidal, js1Hermanto1Pamungkas1Amalia1Saddhono1	1	21
Hermanto1Pamungkas1Amalia1Saddhono1	1	
Pamungkas1Amalia1Saddhono1		30
Amalia 1 Saddhono 1	1	
Saddhono 1		30
	2	4
Cudanana	2	4
Sudarsana 1	2	4
Basith 1	2	7
Hnoievska 1	2	13
Kobylchenko 1	2	13
Omelchenko 1	2	13
Dandashi 1	2	9
Rahmawati 1	2	7
Karkar 1	2	9
Toba 1	2	7
Saad 1	2	9
Mercado 1	2	15
Scott 1	2	15
willey 1	2	15
Larosa 1	2	23
Zebua, p 1	2	23
Zebua, y 1	2	23
Hanafiah 1	2	11
Indriani 1	2	11
Wasliman 1	2	11
Abdullah 1	0	40
Lutfi 1	2	16
Mukhibin 1	2	16
Rusyid 1	2	16
Najmah 1	2	22
Ulvia 1	2	22
Veradegita 1	2	22
Prajalani 1	2	18
Sunardi 1	2	18
Widyastono 1	2	18
Aprilia 2	1	24
Kartini 1	1	24
Batool 1	1	25
Khawaja 1	1	25
Blazevic 1	1	26

Author	<b>Total of Document</b>	Total Link Strength	Cluster
Bulic	1	1	26
Boeriswati	1	1	27
Rasmitadila, z	1	1	27
Faizah	1	1	28
Maulidah	1	1	28
Hendriani	1	1	29
Kristiana	1	1	29
Hamdanah	1	2	17
Muslimah	1	2	17
Nina	1	2	17
Khukmi	1	1	31
Kurniawan	1	1	31
Laksamana	1	1	32
Pamelasari	1	1	32
faraz	1	1	33
Mufti	1	1	33
Rugaiyah	1	1	34
Wahyudi	1	1	34
Satria	1	1	35
Sekarayu	1	1	35
Kassim	1	1	36
Shaari	1	1	36
Istifadah	1	1	37
Siddiq	1	1	37
Buadiarti	1	1	38
Sugito	1	1	38
Tahar	1	1	39
Zakaria	1	1	39
Armstrong	1	0	41
Hanurawan	1	0	42
Maryanti	1	0	43
Ortiz	1	0	44
Shokhedim	1	0	45
sulaiman	1	0	46
Suprihatiningrum	1	0	47
Syamsi	1	0	48
Wiliyanto	1	0	49

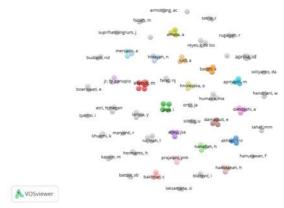


Figure 5. Network visualization of the author in publication on collaborative assessment and inclusive education in Indonesia.

#### **CONCLUSION**

This research purpose is to see the growing trends in the areas of collaborative assessment in Indonesia, particularly in inclusive environments from 2013 to 2023. the research techniques used are bibliometric analysis and theoretical analysis. The research stages are as follows: (1) Preparing PoP and VOSviewer applications; (2) Collecting data; (3) Reducing Data; (4) Data Visualization with VOSviewer; (5) Data Analysis. After searching with the keywords "Assessment", "Collaborative", "Inclusive Setting", "Disability", "Elementary School", and "Indonesia" 996 articles were obtained. Based on the research results, collaborative assessment is an important and very useful assessment approach in inclusive education, especially for children with disabilities, because collaborative assessment aims to increase the experience of students with disabilities or special needs by involving all stakeholders and creating an inclusive educational setting. This is closely related to the role of teachers in its implementation, in addition to teachers there is the role of parents and external parties such as other school staff. The duty of teachers in the implementation of collaborative assessment is key because teachers must have high competence, commitment and tolerance. Some forms of collaborative assessment in inclusive education in Indonesia include selfassessment, teacher assessment and peer assessment. This research is also substantiated by bibliometric analysis to support current research trends on collaborative assessment for students with disabilities in inclusive education in Indonesia.

Based on the results of the research we have conducted, there are suggestions that can be used by teaching staff and related agencies regarding the implementation of collaborative assessments in inclusive education, especially for children with disabilities, so that the implementation of learning aimed at disability inclusive education can run well.

#### **REFERENCES**

Afdal, A. (2015). Kolaboratif: Kerangka kerja konselor masa depan. Jurnal Konseling dan Pendidikan, 3(2), 1-7.

Al Husaeni, D. N., Nandiyanto, A. B. D., & Maryanti, R. (2023). Bibliometric analysis of special needs education keyword using VOSviewerr indexed by google scholar. Indonesian Journal of Community and Special Needs Education, 3(1), 1-10.

- Alpen, J., Dlis, F., Apriani, L., Kurniawan, E., & Sofyan, D. (2022). Trends in scientific publication of traditional game learning models in physical education and sports in Indonesia: A bibliometric analysis. Journal Sport Area, 7(2), 214-226.
- Andrade, H. L. (2019). A critical review of research on student self-assessment. Frontiers in Education, 4, p. 87), 1-13.
- Bahri, S., Adnyana, I. K., Hasan, M. F., Ray, H. R. D., & Paramitha, S. T. (2022). Science mapping for nutrition education sports recovery research: A bibliometric analysis.
   International Journal of Education in Mathematics, Science and Technology, 10(4), 795-811
- Budiarti, N. D., & Sugito, S. (2018). Implementation of inclusive education of elementary schools: a case study in Karangmojo Sub-District, Gunungkidul Regency. Journal of Education and Learning (EduLearn), 12(2). 214-223.
- Chukwuyenum, A. N., & Adunni, A. B. (2013). Impact of peer assessment on performance in mathematics among senior secondary school students in delta state Nigeria. Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS), 4(5), 719-725.
- Cormode, G., Ma, Q., Muthukhirshnan, S., Thompson, B. (2013). Socializing the h-index. Journal of Informetrics, 7(3), 718-721.
- Correria, A., Teixeira, V., & Forlin, C. (2021). Home school collaboration in assessment, placement, and individual education plan development for children with special education needs in macao: The views of parents. School Community Journal, 31(1), 205-231.
- Dwimarta, R. (2015). Rancangan IEP (Individualized educational program) bagi anak berkebutuhan khusus pada pendidikan inklusif. Prosiding Ilmu Pendidikan, 1(2), 230-238.
- Eberli, R. (2018). Enhancement of academic engagement of students with intellectual disability using peer support interventions. A systematic literature review: Scool of Education and Communication (HLK). 1-43.
- Efendi, M. (2018). The implementation of inclusive education in Indonesia for children with special needs: Expectation and Reality. Journal of ICSAR, 2(2), 142-147.
- Efendi, M., Pradipta, R. F., Dewantoro, D. A., Ummah, U. S., Ediyanto, E., & Yasin, M. H. M. (2022) Inclusive education for student with special needs at Indonesian public schools. International Journal of Insruction, 15(2), 967-980.
- Hakiman, H., Sumardjoko, B., & Watson, W. (2021)Religious instruction for students with autism in an inclusive primary school. International Journal of Learning, Teaching Educational Research, 20(2), 139-158.
- Handayani, R., & Wulandari, D. (2021). Modern assessment dalam menyongsong pembelajaran abad 21 dan hambatan di negara berkembang. Jurnal Pendidikan Edutama, 8(1), 14-24.
- Hermanto, H., Pamungkas, VB. (2023). Teacher strategies for providing access to learning for students with special needs in elementary schools. International Journal of Learning, Teaching and Educational Research, 22(4), 345-361.
- Juniar, M. W., Kadarudin, K., Aswin, A. M., Annisa, A. N., Wahyuni, A. S., & Kurniawati, A. (2020). Indonesia: Moving away from segregated education to inclusive education for people with disabilities. Journal of Critical Reviews, 7(19), 910-919.
- Kartini, A., & Aprilia, I. D. (2022). Challenges and opportunities for regular teachers in the implementation of assessments for students with special needs in inclusive education provider school. Journal of Education for Sustainability and Diversity, 1(1), 29-38.
- Kurniadi, R. (2023). Transformation of Economic Education (Bibliometric Analysis). Indonesian Journal of Economics, Social, and Humanities, 5(2), 119-130.
- Kurniati, P. S., Saputra, H., Fauzan, T. A. (2022). A bibliometric analysis of chemistry industry research vosviewer application with publish or perish. Moroccan Journal of Chemistry, 10(3), 428-441.

- Collaborative Assessment for Learning Towards Disability Inclusive Education In Indonesia Primary Schools The Indonesian Policies on GEDSI (Gender, Disability, and Social Inclusion) Framework
- Li, C., Zhong, Q., Xie, D., & Pu, S. (2018). Co-occurrence feature learning from skeleton data for action recognition and detection with hierarchical aggregation. arXiv preprint arXip, 1804.06055.
- Lindner, K. T., & Schwab, S. (2020). Differentiation and individualisation in inclusive education: a systematic review and narrative synthesis. International Journal of Inclusive Education, 1-21.
- Lutfi, A., Mukhibin, A., Rusyid, H. K. (2023). Assessment for inclusion in higher education: promoting equity and social justice in assessment. Social Science Journal.
- Marmoah, S., Gestiardi, R., Sarwanto, S., Chumdari, C., & Maryani, I. (2022). A bibliometric analysis of collaboration skills in education (2019-2021). Journal of Education and Learning (EduLearn), 16(4), 542-551.
- Yudha, R. P., Masrukan, M., Djuniadi, D. (2014). Pengembangan instrumen asesmen otentik unjuk kerja materi bangun ruang di sekolah dasar. Journal of Research and Educational Research Evaluation, 3(2), 62-67.
- Maryati, R. (2014). Assessment of mathematical abilities of students with intellectual disabilities during the Covid-19 pandemic. Indonesian Journal of Community and Special Needs Education, 1(2), 47-52.
- Misbah, M., Hamidah, I., Sriyati, S. I. T. I., & Samsudin, A. C. H. M. A. D. (2022). A bibliometric analysis: research trend of critical thinking in science education. Journal of Engineering Science and Technology, 17, 118-126.
- Mukminin, A., Habibi, A., Prasojo, L. D., Idi, A., & Hamidah, A. (2019). Curriculum reform in Indonesia: Moving from an exclusive to inclusive curriculum. CEPS Journal, 9(2), 53-72.
- Muniroh, H., Apriyanti, M., Musayaroh, S., & Yuliana, S. (2017). The positive impact of collaborative leaning for students with intellectual disability in inclusive school. Journal of ICSAR, 1(1), 68-71.
- Nandiyanto, A. B. D., Al Husaeni, D. N., & Al Husaeni, D. F. (2021). A bibliometric analysis of chemical engineering research using vosviewer and its correlation with covid-19 pandemic condition. Journal of Engineering Science and Technology, 16(6), 4414-44162.
- Nieminen, J. H. (2020). Student conceptions of assessment accommodations in university mathematics: AN analysis of power. Nordic Studies in Mathematics Education, 25(3-4), 27-49.
- Palumbo, R., Hinna, A., & Manesh, M. F. (2023). Aiming at inclusive workplaces: A bibliometric and interpretive review at the crossroads of disability management and human resource management. Journal of Management & Organization. 1-24.
- Pambayun, K. G. (2021). Digital libraries during covid-19 pandemic: a bibliometric analysis and information mapping. Indonesian Journal of Librarianship, 2(1), 17-30.
- Rahmawan, D. I. (2020). Analisis asesmen pendidikan inklusi untuk anak berkebutuhan khusus. In The Indonesian Conference on Disability Studies and Inclusive Education, 1, 47-62.
- Rapisa, D. R., Damastuti, E., & Putri, A. A. (2021). Identification of children with special needs in inclusive schools. Journal of ICSAR, 5(2), 15-20.
- Rasmitadila, R., Megan Asri, H., Reza, R., Achmad, S., & Muhammad, N. (2022). Exploring Lecturers' Perspectives for Inclusive Elementary School Mentoring Program Based on University-School Collaborative Partnership (USCP) in Indonesia. Journal of education and e-Learning Research, 9(4), 233-239.
- Rosita, T., Suherman, M. M., Nurhaqy, A. A. (2022). Keterampilan kolaborasi guru sekolah dasar untuk keberhasilan pendidikan inklusif. Warta Pengabdian, 16(2), 75-88.
- Shanmugam, L. K. (2021). Peer tutoring affective strategy in creating support system for children with intellectual disabilities (CWID) in inclusive setting. International Journal of Special Research in Education, 1(1), 1-3.
- Simanjuntak, J. G. G. P., Monim, O. H. K., Novita, V. K., Rachman, M. Z., & Yubawa, C. K. (2023). Bibliometric analysis of inclusive public services research in indonesia. Indonesian Journal of Disability Studies, 10(1), 125-138.

- Sugiarto, D. R. R., Kartono., Mariani, M. (2021). Treffinger learning with collaborative assessment in achievement of creative thinking skill and student mathematical disposition. Unnes Journal of Mathematics Education Research, 10(2), 197-207.
- Suharso, P., Setyowati, L., & Arifah, M. N. (2021). Bibliometric analysis related to mathematical research through database dimensions. In Journal of Physics: Conference Series, 1776(1).
- Sukyadi, D. I. D. I., Maryanti, R. I. N. A., Rahayu, N. I., & Muktiarni, M. (2023). Computational bibliometric analysis of english research in science education for students with special needs using vosviewer. Journal of Engineering Science and Technology, 18, 14-26.
- Sumantri, M. S. (2016). Asesmen dan intervensi pedagogik dalam membangun generasi emas ditinjau dari perspektif pengembangan kreativitas siswa kelas awal sekolah dasar. Jurnal Pendidikan Dasar, 7(1), 74-89.
- Sunardi, S., Maryadi, M., Sugini, S. (2014). The effectiveness of a two day inclusion workshop on teachers' attitudes, understanding, and competence in inclusive education. World Journal of Education, 4(5), 77-85.
- Suprapto, N., Sukarmin, S., Puspitawati, R. P., Erman, E., Savitri, D., Ku, C. H., & MUbarok, H. (2021). Research trend on TPACK through bibliometric analysis (2015-2019). International Journal of Evaluation and Research in Education, 10(4), 1375-1385.
- Supriyadi, E. (2022). A bibliometric analysis: Computer science research from indonesia. TIERS Information Technology Journal, 3(1), 28-34.
- Susilowati, E., Andayani, S., Suryaningrum, D. H., Ardiyanti, A., Rahayu, I. Y., Kurniawan, C. C., & Putri, A. F. (2022). Bibliometric analysis of ethnics and online learning using VOSviewer software. Asian Journal of Research in Education and Social Sciences, 4(3), 137-150.
- Tang, Y., Lu, X., Wan, X., Hu, M. (2023). A bibliometric analysis of publications on obsessive-compulsive disorder using VOSviewer. Frontiers in Psychiatry, 14, 01-07.
- Trisnani, R. P., Hidayah, N., Ramli, M., & Indreswari, H. (2023). Self esteem problem on slow learners students and strategies to solve it in inclusive schools. Journal of ReAttach Therapy and Developmental Diversities, 6(6s), 4015-413.
- Wardhani, M. K. (2020). Persepsi dan kesiapan mengajar mahasiswa guru terhadap anak berkebutuhan khusus dalam konteks sekolah inklusi. Scholaria: Jurnal Pendidikan dan Kebudayaan, 10(2), 152-161.
- Widodo, A. P. A., Hufad, A., Sunardi, Nandiyanto, A. B. D. (2020). Collaborative teaching in heat transfer for slow learner students. Journal of Engineering Science and Technology, 1, 11-21.
- Wirzam, M. D. H., & Putra, Z. A. (2022). What is the correlation between chemical engineering special needs education from the perspective of bibliometric analysis using vosviewer indexed by google scholar. Journal of Community and Special Needs Education, 2(2), 103-110.
- Yuliawanti, R. (2019). Peran kolaboratif konselor di sekolah inklusif. Jurnal Ide Guru, 4(1), 68-74.
- Zainuddin, Z., Haryandi, S., Ibrahim, M. A., and Juliana, E. N. (2021). Bibliometric analysis in astrophysics: Overview of education, religion, and local wisdom in 2016-2021. IJORER: International Journal of Recent Educational Research, 2(5), 501-514.