Impact Evaluation of the Internal Quality Assurance Systems on the Teacher Learning Quality in Indonesia

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This study aims to measure the impact of SPMI on the quality of teacher learning. The research method uses quantitative analysis of the Wilcoxon Test. Adescriptive statistical analysis is used to provide a general overview of research results. A sample of 146 teachers spread throughout Banten province, Indonesia; the results of the study showed that the quality of teacher learning before implementing SPMI (Y0) had an average score of 2.9 or 72.5% in the 'reasonable' category. After implementing SPMI (Y1), the average score was 3.2 or 80% in the good category. The difference between the two (Y1-Y0/3.2-2.9) is 0.3, or they have a difference of 0.3. A positive sign (0.3) indicates that the average value after SPMI (Y1) is > than the average value before SPMI (Y0) or (Y1 > Y0). This difference is significant after the Wilcoxon test with P-Value / sig. of 0.001 and according to the criteria of Sig. 0.001 < α (0.05) can be said to be significant.

Keywords: IQAS, quality, education

INTRODUCTION

Quality assurance is a process to ensure that the product or service provided meets standards (Elassy, 2015; Ryan, 2015; Williams, 2016). In the education context, quality assurance aims to ensure that educational services teachers provide meet predetermined quality standards (Aburizaizah, 2022). Quality assurance guarantees the quality of education teachers provide (Komorowska, 2017; Roskosa & Stukalina, 2018; Tight, 2020). An effective quality assurance process can help evaluate teacher performance, identify areas for improvement, and provide helpful feedback to improve the quality of learning. Quality assurance can help improve teacher teaching effectiveness. By analyzing the data collected during the quality assurance process, teachers can understand where students are experiencing difficulties and where improvements must be made. Teachers can adjust teaching to be more effective and efficient.

With quality assurance, schools and teachers must meet established standards to ensure students receive the best possible education. These standards may cover curriculum quality, teaching methods, assessment, and professional development. In addition, quality assurance can help increase the accountability of teachers and schools so that they will be more accountable for providing quality education. Internal Quality Assurance System (IQAS) creates a positive environment for learning(Pujiati et al., 2022; Taryana et al., 2017; Tight, 2020). Students feel supported and given the teaching goodness to fulfill their potential. However, IQAS is not the only factor that can guarantee the quality of education teachers present. Other factors such as teacher competence and motivation, learning environment conditions, and support from parents or the surrounding community are also very influential. Therefore, quality assurance to implementing with other factors that support good quality education.

In Indonesia, the implementation of a quality assurance system for primary and secondary education began in 2016 through the Regulation of the Minister of Education and Culture Number 28 of 2016 concerning the quality assurance system for primary and secondary education. The implementation of an education quality assurance system is being done as an effort to fulfill quality at schools. IQAS practice is not done individually but by all components in the education unit. Therefore, the practice of the quality assurance system at school is the joint responsibility of all education components (whole school approach). So, all constituents of education together have a culture of quality (Kemdikbud, 2016a).

Cardoso et al. (2019) explain that the successful implementation of an internal quality assurance system depends highly on the actors or the school community. They have a relationship with each other in the internal quality assurance system practices development. In line with the Ministry of Education and Culture regarding quality assurance as an effort to fulfill quality, several research results show that implementing SPMI in educational institutions that are doing well can positively impact the quality of learning. (Tavares et al., 2017). Other studies have shown that IQAS can generate information to identify and correct program weaknesses (Kinser, 2014). The research result of Jingura & Kamusoko (2018) shows an educational quality assurance system is crucial for educational institutions to improve their quality of education and foster innovation.

Implementation of IQAS Indonesia is not the only country implementing quality assurance. Although the implementation system is different, various countries worldwide have implemented it. The search results of various studies regarding the implementation of quality assurance in education found that the implementation of quality assurance in education is in several countries around the world. A large number of countries around the world have established educational quality assurance mechanisms, such as; those in the United States, Europe, Latin America, and other regions (Salto, 2018). Higher education in Ethiopia conducts quality assurance through HERQA (*The Higher Education Relevance and Quality Agency*). In England, the quality assurance is through by *Quality Assurance Agency* (QAA) (Tamrat, 2019), (Trifiro, 2018). In Hong Kong, quality assurance is at three levels school, territorial and international. The government exercises control over implementing quality assurance by *Education Bureau* (EDB) (Kemdikbud, 2016b).

The implementation of quality assurance in Indonesia is practiced in the following cycle (Kemdikbud, 2016b):

FIGURE 1
IMPLEMENTATION OF INTERNAL QUALITY ASSURANCE SYSTEM (IQAS) AT SCHOOL IN INDONESIA

The above cycle picture is the flow of implementing IQAS in Indonesian schools. Implementation of IQAS begins with quality mapping, which is carried out through school self-evaluation activities known as School Self Evaluation (EDS). All components of the education unit and stakeholders must be involved in the practice of mapping the quality, such as school principals, teachers, staff, and stakeholders. The next step, the quality plan, is to compile in detail the actions or concrete actions to improve quality or fulfill quality in schools. The next step is the quality fulfillment action, which is the realization of quality fulfillment programs and activities designed and written in the school quality fulfillment plan-quality compliance plan document. The document must be a doing as a quality improvement effort. The third step, the Quality evaluation, is a form of assessment using a set of standards to ensure that the IQAS cycle runs optimally and achieves goals. The final step is establishing quality objectives to measure the extent to which IQAS can improve the quality of education. According to the Ministry of Education, the implementation of IQAS in schools can improve the quality of education as indicated by the increased competence of educators in carrying out the learning process. The purpose of this research is to see whether IQAS has a positive impact on teacher competence in the learning process.

RESEARCH METHODS

This study uses a quantitative approach with descriptive statistical tests and before-after analysis with the Wilcoxon test. The test was conducted to measure whether there were differences in teachers after implementing IQAS (Y1) and before implementing IQAS (Y0). The World Bank and the International Initiative for Impact Evaluation (I3E) define impact as "the difference in indicators (Y) with intervention (Y1) and without/before intervention (Y0). That is, impact = Y1 (after/with intervention) - Y0 (without/before intervention). (Visser et al., 2013). The impact of a program can also be measured by

measuring before and after the program is implemented (Donald L. Kirkpatrick & James D. Kirkpatrick, 2008).

The study was conducted in a secondary school with a sample of 146 teachers in Banten Province, Indonesia, and research time from July 2022 to November 2022. The data collection method is a survey given directly to respondents to obtain data related to the impact of IQAS on teacher competence in the learning process. The survey uses a Likert scale of 4 (Strongly Disagree = 1), (Disagree = 2), (Agree = 3), (Strongly Agree = 4). The collected survey data was processed by finding the mean of the respondents' answers to be matched with the percentage categories as follows;

TABLE 1
PERCENTAGE CATEGORY

No	Score Percentage	Category
1	90% - 100%	Very Good
2	80% - 89%	Good
3	70% - 79%	Fair
4	< 70%	Poor

The confidence level is 95% on the two-tiled method. The hypothesis is arranged as follows.

H_0: *Y0 = Y1 = 0 There is no difference in the average score before and after implementing IQAS.*

H_1: *Y0 ≠ Y1 ≠ 0 There is a difference in the average score before and after implementing IQAS.*

The following hypothesis criteria.

If the calculated Z value ≥ Z table value, then the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. Or

If the calculated Z value < Z table value, then the null hypothesis (H0) is accepted, and the alternative hypothesis (H1) is rejected.

With the Z-table in the two-tailed method and a significance level of 0.5% or 0.05, the P-value is 1 - 0.05/2, which equals 1 - 0.025 = 0.975. Therefore, the Z-table is equal to Z 0.975, found in the Z-table to be 1.96. Thus, the value of the Z-table is 1.96 or with the following significant criteria.

If the Asymp. Sig. (2-tailed) < $\boldsymbol{\alpha}$ (0.05), then the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. Or

If the Asymp. Sig. (2-tailed) ≥ $\boldsymbol{\alpha}$ (0.05), then the null hypothesis (H0) is accepted, and the alternative hypothesis (H1) is rejected.

RESULT AND DISCUSSION

The following data is based on a survey that has been conducted regarding how teachers carry out the learning process appropriately according to learning quality standards.

TABLE 2
RESPONDENT'S ANSWERS ON THE INDICATOR OF THE LEARNING PROCESS BEFORE IQAS (Y0)

No	Statement	Frequency (F)	Score (X)	Percentage %
1	Strongly Agree	21	4	14,4
2	Agree	99	3	68
3	Disagree	20	2	13,6
4	Strongly Disagree	6	1	4
	Total	146		100

The table above shows the results of the respondents' answers to the indicator that the teacher carried out the learning process correctly according to the quality standards of learning before IQAS (Y0). Out of a total of 146 respondents, 21 respondents (14.4%) stated that they strongly agreed, 99 respondents (68%) agreed, 20 respondents (13.6%) answered that they disagreed, and six respondents (4%) stated that they strongly disagreed. The data shows that most respondents stated that they agreed, which means that before carrying out the IQAS activity, teachers had carried out the learning process appropriately according to the learning quality standards.

The average score on teacher indicators has carried out the learning process according to the quality standards of learning before IQAS (Y0) presented in the following table;

TABLE 3
MEAN SCORE ON THE INDICATOR OF THE LEARNING PROCESS BEFORE IQAS (Y0)

No	Statement	Frequency (F)	Score (X)	∑F (X)	Mean X (∑FX/∑F)	Percentage (%)	Category
1	Strongly Agree	21	4	84			
2	Agree	99	3	297			
3	Disagree	20	2	40			
4	Strongly Disagree	6	1	6		Mean X/Skor Maximum (2,9/4)	
	Total	146		427	2,9	72,5%	Fair

The survey results in the table above show the average score on the teacher's indicator of carrying out the learning process appropriately according to the quality standards of learning before IQAS (Y0) of 2.9 according to criteria equal to or greater than 2.5 and less than 3 ($3 > X \geq 2.5$) in the high category if converted in percentage form with a maximum value of 4 then (2.9/4*100) equals 72.5% according to the criteria for a fair categorized percentage value. Thus, it can be interpreted that before implementing IQAS, the teacher has carried out the learning process appropriately according to the learning quality standards in the fair category or with an achievement level of 72.5%.

The average score on teacher indicators has carried out the learning process according to the quality learning standards after IQAS (Y1) presented in the following table.

TABLE 4
RESPONDENT'S ANSWERS ON THE INDICATOR OF THE LEARNING PROCESS AFTER IQAS (Y1)

No	Statement	Frequency (F)	Score (X)	Category %
1	Strongly Agree	49	4	34
2	Agree	73	3	50
3	Disagree	24	2	16
4	Strongly Disagree	0	1	0
	Total	146		100

Table 4 shows the results of the respondents' answers to the indicator that the teacher carried out the learning process correctly according to the quality standards of learning after IQAS (Y1). Out of a total of 146 respondents, 49 respondents (34%) stated that they strongly agreed, 73 respondents (70%) agreed, 24 respondents (13.6%) stated that they disagreed, and no responded that they strongly disagreed. The data shows that most of the respondents agreed, which means that after carrying out the IQAS activity, teachers had carried out the learning process appropriately according to the learning quality standards.

TABLE 5
MEAN SCORE ON THE INDICATOR OF THE LEARNING PROCESS AFTER IQAS (Y1)

No	Statement	Frequency (F)	Score (X)	∑F (X)	Mean X (∑FX/∑F)	Percentage (%)	Category
1	Strongly Agree	49	4	196			
2	Agree	73	3	219			
3	Disagree	24	2	48			
4	Strongly Disgree	0	1	0		Mean X/Skor Maximum (3,2/4)	
	Total	146		463	3,2	80%	Good

The survey results in the table above show the average score on the teacher's indicator of carrying out the learning process appropriately according to the quality standards of learning after IQAS (Y1) of 3.2 according to criteria equal to or greater than 3 ($X \geq 3$) in the high category if converted in percentage form with a maximum value of 4 then (3.2/4*100) equals 80% according to the criteria for good, categorized percentage value. Thus, it can be interpreted that after the IQAS implementation, the teacher has carried out the learning process appropriately according to the learning quality standards in the good category or with an achievement level of 80%.

The average score of teachers implementing the learning process correctly according to the quality standards of learning before implementing IQAS (Y0) is 2.9 or with an achievement level of 72.5% in the fair category, and the average score after implementing IQAS (Y0) is 3.2 or with an achievement level of

80% in the good category. If after implementing IQAS is symbolized as (Y1) and before implementing SPMI is symbolized as (Y0), then the difference between them (Y1-Y0/3.2-2.9) is 0.3, or both have a difference of 0.3. The positive sign (0.3) indicates that the average score after IQAS (Y1) > the average score before IQAS (Y0) or (Y1 > Y0). From the results of the quantitative analysis, it can be concluded that teachers implement the learning process appropriately according to the quality standards and that there is a positive difference. It is shown by the positive difference between the conditions before IQAS (Y0) and after IQAS (Y1), where (Y1 > Y0) indicates a positive change.

TABLE 6
BEFORE-AFTER ANALYSIS BY WILCOXON TEST

Indicator	Wilcoxon Test		Criteria	Conclusion
	P-Value/ Sig.	Z score		
Teachers implementing the learning process correctly according to the quality standards of learning	0,001	3,217	Sig. 0,001 < α (0,05), or Z-score (3,217) > Z-table (1,96)	H0: rejected, H1: accepted, that means there is a difference before and after IQAS (Y1 ≠ Y0)

The Wilcoxon test results showed a significant value or P-value of 0.001 and a Z-score of 3.427, meeting the criteria of Sig. 0.001 < α (0.05), or Z-score (3.217) > Z-table (1.96), so H0: rejected, H1: accepted, that means a difference in the average values before and after implementing IQAS. Thus, the positive difference in survey results is deemed significant by the Wilcoxon test. Indicates that IQAS has a positive impact on improving teachers' skills in conducting learning processes that meet quality standards.

The presence of IQAS in schools has a positive impact on teachers, one of which is related to implementing the learning process in the classroom. Improving human resources, especially teachers, should be a shared concern, especially for schools in improving the quality of education within their internal institution. The IQAS program in schools should be welcomed as a driver for schools to maintain achievement and as an effort to improve the quality of education within the school. In the SPMI activities, improving the quality of teachers becomes the focus as an effort to fulfill quality requirements, especially related to the implementation of the learning process.

A teacher should have a good and effective lesson plan to ensure that learning runs smoothly and according to plan. They can monitor students' progress and make changes to the lesson plan if necessary to achieve maximum learning outcomes. A teacher who masters learning planning will implement learning more effectively and achieve optimal results for students. Teachers have a role in determining the success of student learning. Good and well-planned learning planning can help teachers achieve their learning goals and ensure that every student benefits from every learning activity.

CONCLUSION

IQAS in schools has a positive impact on teachers, one of which is related to the implementation of the learning process carried out in class. Improving human resources, especially teachers in schools, must be a common concern, especially in schools, in improving the quality of education within these schools. Therefore, the existence of the IQAS program in schools must be welcomed as an incentive for schools to maintain achievement and as an effort to improve the quality of education within the school. IQAS activities in improving teacher quality are the focus to fulfill quality related to the practice of the learning process.

The implementation of the IQAS activities above describes what is felt and obtained by the teacher after carrying out IQAS activities related to the practice of the teaching and learning process. Teachers with

lesson planning skills can ensure that learning content is relevant and by curriculum standards. They can also determine learning methods that are effective and fun for students, thereby motivating them to learn. The teacher who is proficient in lesson planning can also ensure that the content of learning can be well-received by the students and achieve the learning objectives. They can create varied and enjoyable learning activities so that the students do not easily get bored and remain enthusiastic about learning.

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