

A Comparative Analysis of International and Indonesian Quality Assurance Assessments: Review of Elementary Education Study Program

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Abstract—Quality assurance is an essential issue in higher education, therefore Agency for Quality Assurance through Accreditation of Study Programs (AQAS) and LAMDIK as independent quality assurance institutions in Indonesia are present as widely-known quality assurance institutions in Indonesia with differences between standards or criteria on the instruments of the two institutions. This study is based on a research question about how much similarity the assessment variables of the two quality assurance institutions. Hence, this research aims to comparatively analyze the instrument of the two institutions, to figure out which standards or criteria are the focus of the assessment, as well as to analyze the follow-up for the assessment for further study. The data source used was the assessment criteria of the two institutions therefore the methodology was multi-layered research consisting of narrative content analysis followed by statistical analysis, final expert recommendation review, and expert interviews which produce a comparative description. One of clear findings of this study was that AQAS use top-down model hierarchically, starting from the university, faculty, or school, and then to the study program being assessed. Statistical analysis used was fuzzy classifications such as 0, 0.25, 0.50001, 0.75, and 1 which were interpreted as fully out, more out than in, neither fully in nor fully out, more than out, and fully in. The similarity of standards or assessment criteria between the two institutions was shown by PRI from the results of the analysis using the fs-QCA application which pointed out at 0.66667 or close to 67% exceeding 0.5 which was a significant level of inconsistency. The inconsistency value occurred because there are several differences in AQAS standards and assessment criteria at LAMDIK which are influenced by education policies in Indonesia such as the tri dharma policy of higher education that requires community service.

Keywords—accreditation, AQAS, comparative analysis, LAMDIK, quality assurance

I. INTRODUCTION

Quality assurance measurement institutions in a global scope such as the Agency for Quality Assurance through

Accreditation of Study Programs (AQAS) and the Independent Education Accreditation Institute (LAMDIK) as independent quality assurance institutions in Indonesia are present as accreditation institutions that accredit study programs in the field of education. Elementary Education is one of study programs that has been participated to be assessed in 2022 since universities are competing in quality assurance and accreditation to provide quality education to respond to global developments, to provide outputs that meet demand in the labor market or stakeholders, both locally and globally, with high efficiency and excellence in various fields [1]. However, in the document completion process, the study program has seen several differences of the standards and criteria.

While quality assurance is a vital issue for educational institution [2], it is important to figure out what issues that matter according to both quality assurance assessment institutions. This study comes from a research question about how many similarities the assessment variables of the two quality assurance institutions, AQAS and LAMDIK, have. Thus, this study aims to comparatively analyze the instrument criteria of the two institutions and to analyze the follow-up for the assessment. The outcome of this work is expected to be used for such framework for internal quality assurance assessment held by relevant universities, in this case, Universitas Pendidikan Indonesia, or even in many higher education institutions in Indonesia.

II. MATERIALS AND METHODS

This study focuses on a comparison that contains several variables studied therefore the methodological approach used is multi-layered. In addition to survey research (questionnaires and interviews), there are also those who use research in the form of content-analysis, statistical analysis, and comparative analysis [3].

The method of content analysis is narrative and process tracing aims to identify relevant factors and is presented in summary form [4]. The narrative analysis is guided by explanatory variables taken from the theoretical framework given previously [5]. After being described in a narrative manner, this research is continued

with a qualitative comparative analysis. The comparative analysis highlights some similarities between the performance indicators employed, such as the scores of the criteria and attachments in which there are assessment variables of quality assurance management in the Elementary Education study program. The variables that are used as assessments by the two institutions, both AQAS and LAMDIK, are the data sources for content analysis.

In summary, the different layers of empirical research in this study are described in Fig. 1.



Figure 1. Research stages.

This narrative analysis is then combined with Fuzzy-set Qualitative Comparative Analysis (fs-QCA) because there have been several studies that have combined fs-QCA with narrative analysis [4]. Fs-QCA is assessed as a methodological way of translating categorical concepts into measurable conditions, illustrating the idea that cases can have some degree of membership in a particular set to determine the necessary and reasonably probabilistic causal configuration. Fs-QCA offers the possibility to systematically study a small to medium number of variables in depth while also arriving at valid causal statements, including interaction effects and generalizations [6]. Due to the qualitative nature of the data set, which contains a large amount of information but is not systematic, this study selected fuzzy-sets of five values as shown in Table I.

TABLE I. FUZZY-SETS FIVE VALUES

Fuzzy-sets Rating Category Five Grades		
1	Fully in	Definitely in
0.75	More in than out	Probably in
0.5	Neither fully in nor fully out	Not sure
0.25	More out than in	Probably not in
0	Fully out	Definitely not in

III. RESULT AND DISCUSSION

AQAS and LAMDIK basically have some differences in terms of content for each standard in AQAS or criteria in LAMDIK as described in Table II. AQAS institutions have 7 criteria including curriculum quality; quality assurance procedures; teaching and learning process as well student assessment, student acceptance, progress, recognition, and certification; teaching staff; learning resources and support for students; as well as public

information while LAMDIK as a national accreditation agency has 9 different criteria, both in terms of the substance of the criteria and the content of the criteria themselves.

A. Content Analysis: Comparison of Criteria for AQAS and LAMDIK Assessments

AQAS which has 7 standards of course is different from the 9 criteria in LAMDIK as described in Table II. For example, AQAS on Standard 2 which highlights quality assurance procedures is discussed more thoroughly in the Vision, Mission, Objectives and Strategy and in terms of Governance and Cooperation which are Criteria 1 and 2 of LAMDIK, respectively.

In terms of curriculum quality, which is the first of the 7 criteria in AQAS, this is discussed in the education criteria in Criterion 6 by LAMDIK with the title Education criteria. The “Education” criteria at LAMDIK also include an explanation of the curriculum, Vision, Mission, Objectives and Strategy, formulation, graduate achievement profile, graduate competency profile, study materials, course formation and credit weights, curriculum matrices and maps, as well semester learning plans (RPS) which is assessed in AQAS on Standard 3. Still in Standard 3, AQAS also discusses the teaching and learning process and student assessment while on Standard 6 it discusses Learning Resources and Support for Students. This means, LAMDIK is quite practical to comprehensively summarize the three standards on AQAS in one criterion.

Some of the standards in the AQAS have similarities with some of the LAMDIK criteria. The AQAS in Standard 4, for instance, has similarities with LAMDIK Criterion 3 which broadly discusses student affairs; new student admissions, selection criteria and process, quality of new students, as well as student service and coaching programs.

On the other hand, the fifth Standard in AQAS discusses the same thing as Criterion 4 of LAMDIK which is about teaching staff and education personnel complete with research and community service activities carried out by fixed lecturers of study programs since they are in charge with the obligation to carry out education, research, and community service. Society as mandated in Law Number 20 of 2003 concerning National Education Article 20 [7].

B. Statistical Analysis with Fuzzy-Sets Qualitative Comparative Analysis

Logic as the basis of reasoning can basically be distinguished by three topic-neutral items: truth values, vocabulary (operators), and reasoning procedures (tautologies, syllogisms). In double logic, the truth value can be either ‘true’ (1) or ‘false’ (0) and the operator is determined through the truth table [8]. Therefore, the truth values in the columns define each operator. Considering modus ponens as a tautology:

$$(A \wedge (A \Rightarrow B)) \Rightarrow B \quad (1)$$

Premise: A is true Implication: If A is B then Conclusion: B is true.

TABLE II. COMPARISON OF ASSESSMENT VARIABLES ON AQAS' STANDARDS AND LAMDIK'S CRITERIA

Research variable	AQAS (Standards)	LAMDIK (Criteria)
Criteria	The 7 assessment standards include: 1. Curriculum Quality 2. Quality Assurance Procedure 3. Teaching and Learning Process and Student Assessment 4. Student Admission Progress, Recognition, and Certification 5. Teaching staff 6. Learning Resources and Support for Students 7. Public Information	The 9 assessment criteria including the Study Program Management Unit Assessment consist of: 1. Vision, Mission, Goals and Strategy (VTMS) 2. Governance and Cooperation 3. Student 4. Human Resources 5. Finance, Facilities, and Infrastructure 6. Education 7. Study 8. Community service 9. Tri Dharma Outcomes and Achievements
Valuation Variables	<p>University</p> <ol style="list-style-type: none"> 1. Education Administration Rules 2. Curriculum Development Rules 3. Indonesian National Qualifications Framework 4. Internal Audit Report 5. Assessment Regulation 6. Academic Writing Rules 7. Quality Assurance 8. Lecturer Recruitment 9. Organizational Structure and Cooperation 10. Statute 11. Strategic Plan 12. Student Admission <p>Faculty / School</p> <ol style="list-style-type: none"> 1. Infrastructure 2. Strategic Plan <p>Study program</p> <ol style="list-style-type: none"> 1. Curriculum 2. Course Description 3. Semester Learning Plan 4. Lecturer Curriculum Vitae 5. Student Final Project Sample 6. Lecture Module 7. Mid-test Sample 8. Final Test Sample 9. Tracer Study of Alumni Satisfaction 10. Tracer Study of Stakeholder Satisfaction 11. Tracer Study of Student Satisfaction 12. Cooperative relationship 13. Website 14. Virtual Visit Video 	<ol style="list-style-type: none"> 1. UPPS data 2. Governance and Cooperation <ol style="list-style-type: none"> a. Cooperation in Education b. Research Cooperation c. Community Service Cooperation d. Institutional Cooperation 3. Student <ol style="list-style-type: none"> a. Student b. Student Services Program 4. Finance, Facilities, and Infrastructure <ol style="list-style-type: none"> a. Lecturers' Identity b. Lecturers' Skills c. Lecturers to Student Ratio d. Lecturers' Workload e. Lecturers' Teaching Activities f. Number of Lecturers Guidance g. Lecturers' Achievements h. Lecturers' Scientific Works i. Education Personnel 5. Funding <ol style="list-style-type: none"> a. Fundraising b. Use of Funds c. Research funding d. Community Service e. Educational Facilities and Infrastructure 6. Education <ol style="list-style-type: none"> a. Subject b. Graduate Learning Outcomes (CPL) c. Semester Learning Plan (RPS) d. Integration of Research and Community Service Results in Lectures e. Number and Frequency of Students of Thesis Guidance f. Academic Activities Outside Lectures g. Visiting Lecturers and Experts 7. Study <ol style="list-style-type: none"> a. Activities, Relevance, and Involvement of Students in Research b. Number of Research Publications of Lecturers 8. Community Service <ol style="list-style-type: none"> a. Activities, Relevance, and Student Involvement in Community Service b. Number of Community Service-based Publications of Lecturers 9. Tri Dharma's Outputs and Achievements <ol style="list-style-type: none"> a. GPA Data b. Study Period and Study Successfulness c. Tracer Study of Implementation d. Graduate User Satisfaction Level e. Publication of Research Results f. Citation of Student Scientific Works g. Lecturers' Products or Services h. Students' Products or Services

The following assumptions can be made:

- (1) A and B observe the same thing.
- (2) A in terms of premise is identical to A in implication.

- (3) True = must be true; False = definitely wrong
- (4) There will only be two quantifiers: 'All' and 'At least one thing in common' [9]

In relation to the AQAS and LAMDIK guarantee institutions, as described in Table II, there are two possible similarities to the standards in AQAS and the criteria to LAMDIK, possibly ‘all’ and some similarities. From the results of content analysis, quantitative values can be given according to the assessment criteria in Table I. The quantitative values are written in Fig. 2, then the truth-table of the assessment variables can be seen in Fig. 3 and processed by the fs-QCA application.

The value of 0.5 is written as 0.50001 in Fig. 2 for inclusion in the truth table analysis [10]. In fuzzy set analysis, it is also important to consider the Proportional Reduction in Inconsistency or PRI score in order to avoid the association of simultaneous subsets of configurations in both their results and their absence. The PRI consistency score should be high and ideally not too far from the raw consistency score (e.g., 0.7); configurations with a PRI score below 0.5 indicate significant inconsistency [11].

QAInstitution	QualityAssurance	ningImplementa	lumDevelonal	AuditRe	reRecruitment	ionandCo	strategicPla	frastructu	Curriculumrse	Describe	earningPla	Lecture	Module
AQAS	1	0,75	1	1	1	1	1	1	1	1	1	1	1
LAMDIK	1	1	0,50001	1	1	1	0,75	0,75	1	1	1	1	0,50001

Figure 2. Fuzzy-sets scores of the two institutions.

Module	Cooperation	Research	CommunityService	GuestLecture	number	StudentInvolvement	cases	raw consist.	PRI consist.
1	1	1	0	1	1 (50%)			0	0
1	1	1	1	1	1 (100%)			0.666671	0.666671

Figure 3. Truth table fuzzy-sets qualitative comparative analysis from fs-QCA application.

In this case the PRI from the analysis using the fs-QCA application is at a value of 0.666671 which is more than the level of significant inconsistency and not too far from the raw inconsistency score. This degree of similarity shows the similarity of assessment between the two institutions.

The inconsistency values in Fig. 3. Occur because there are differences in AQAS standards and assessment criteria at LAMDIK which are influenced by education policies in Indonesia such as the university’s tri dharma policy, one of which requires community service [12], which is not a standard assessment in the AQAS. On the other hand, this significant difference occurs because LAMDIK only focuses on stakeholder satisfaction but not on alumni and students.

C. Feedback Analysis of AQAS for Elementary Education Study Program

Experts’ final report The AQAS for Elementary Education Study Program was released in August 2022 providing a fairly and systematic assessment and recommendations for Elementary Education and other study programs in the same cluster. Recommendations from this expert report can be used as a basis that will support decision making related to the strategic dimensions of the problem [13]. AQAS experts recommended a number of suggestions to be followed up such as handbooks would be better provided in English – not only in the special context of an international accreditation, work out up to which aspects of the study programs are comparable to those of other universities and in which regard they differ, a more defined and unique profile is recommended to contribute to the university’s profile and differ the study program from a number of similar MA programs in Indonesia, it should be made clearer in which areas of the labor market graduates from the different academic levels can find jobs (longitudinal where-bouts-studies / tracer studies as part of the Q&A-concept throughout the study programs and

in interlink-age), extend and differentiate the tracer studies beyond the three indicators that have been assessed to date, the profile of both Masters’ programs should be sharpened by either addressing the research aspect (academic labor market perspective) or by strengthening the management aspect and prepare students for leadership tasks (non-academic labor market perspective) date, and more courses should deal with the topic of sustainable development education (SDG goals) as well.

D. Feedback Analysis of LAMDIK for Elementary Education Study Program

If a study program got unconditional results from AQAS institution, it immediately means that the institution will get a superior rating from LAMDIK as stated in the Regulation of Independent Accreditation Institutions for Education No. 25 Year 2022 concerning the Mechanism of Accreditation of Study Programs in the Scope of Education. However, cluster Elementary Education just successfully earned the conditional one. Based on LAMDIK Field Assessment with two assessors on November 5th, feedback given by assessors are study program should be in line with the postgraduate program and the university in terms of objectives, profile, and student outcomes. Governance both in study program and faculty level has been running as expected. However, if there is such linearity with the study program in bachelor level, the nomenclature should be clear. Since there was a decline on people interest, in this case, student candidate, hence the study program should also analyze whether it is the pandemic that became the issue of interest or it did not have something to do with the pandemic which means the institution is lacking of preference and quality. In addition, every single activity held by the study program should be massively documented. The establishment of an effective education quality assurance system is a strategic priority and requires the active interaction of all subjects of education policy [14].

E. The Expert Interview to Follow-up

From the AQAS and LAMDIK reports, the follow-up to this assessment is used as evaluation material to develop a better strategic plan before being reported for the Internal Quality Audit (AMI) which is held annually at the Indonesian Education University level to ensure the quality of the study program, within the framework of the internal quality system, areas of responsibility and the decision-making process must be adjusted at the management level in accordance with the structure, strategy and priorities of higher education institutions [15]. There could be some ways of implementation such as:

- Internal feedback scheme by systematically collecting data from students, lecturers, and educational staffs; assessment towards teaching and learning processes; organizational and curricular assessment by students, and questionnaire for lecturers' regarding satisfaction with the working, teaching, and learning environments. The outputs could be a key for decision makers within the university.
- External feedback in terms of setting up with the stakeholders to follow-up the professional careers development of the alumni and to provide alumni and students with necessary information about on-site educational offers, employment availability and other relevant information for the university. Thus, external advisory committees could recommend some connections with several degree programs.
- Internal reflection towards the data that has been collected during monitoring and evaluation of the study program as well from internal and external feedback, leading to the preparation of progress report on teaching and learning processes, to be discussed and analyzed by the Committee and Pedagogical Council.

IV. CONCLUSION

After conducting narrative analysis combined with Fuzzy-set Qualitative Comparative Analysis (fs-QCA), PRI results using the fs-QCA application pointed out a value of 0.666671 which is more than the level of significant inconsistency and not too far from the raw inconsistency score. This degree of similarity shows the similarity of assessment between the AQAS and LAMDIK. AQAS focused on the profile of program and recommended that there should be sharpened by either addressing the research aspect (academic labor market perspective) or by strengthening the management aspect and preparing students for leadership tasks (non-academic labor market perspective) date. AQAS as a global quality assurance institution also concerns about SDG since the institution recommended that more courses should deal with the topic of sustainable development education (SDG goals). LAMDIK, on the other hand, highlights the community service of the lectures including the involvement of students and the

integration of the community service output to the lecture process.

V. RECOMMENDATION

This study has compared the quality assurance assessments of two institutions, each international and national, which can be used as a preliminary study to compare the national and internal quality assurance assessments at the Universitas Pendidikan Indonesia level which annually conducts AMI. It is hoped that further studies will examine whether the AMI assessment is in line with LAMDIK and AQAS.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

IG conducted the research and along with HH analyzed the content; TH as advisor and assessor gave a framework on how this work should be conducted; WS and AS respectively as head and quality assurance manager of the study program gave additional data in terms of report of AQAS. ZA assisted in proofreading process. All authors approved the final version.

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