

# Critical Assessment of Higher Education for Sustainable Development: Evidence in Indonesia

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The purpose of this research was to investigate critical assessments, conducted by the academic community, on the implementation of the Higher Education for Sustainability Development (HESD) program in the Faculty of Economics and Business, Universitas Airlangga. This research method uses descriptive qualitative methodology, with the help of graphical analysis known as Graphical Assessment of Sustainability in Universities (GASU) – specifically the environmental, social and educational sections. Participants in this study were teaching staff, administrative staff and students. The study revealed that critical assessment of teaching and administrative staff is carried out through the Higher Education for Sustainable Development (HESD) program, implemented by the Faculty of Economics and Business, Universitas Airlangga, with the highest perceived average being the dimensions of management systems, social responsibility and research and development. Secondly, the highest average perceived dimension is research and development.

**Key words:** *Higher Education for Sustainability Development, Graphical assessment of sustainability in universities, critical assessment, sustainable development, campus sustainability.*

## Introduction

Sustainability in higher education institutions has attracted increasing attention from the public and policy makers over the past decade (Mickwitz and Melanen, 2009; Stephens and Graham, 2010). This is arguably because of increased awareness in the community about sustainability, and the significant impact of campus activities focused on environment and society

(Alshuwaikhat and Abubakar, 2008; Lozano, 2006a). As a result, a number of studies have been conducted on how to best improve sustainability performance in educational institutions.

There are a number of stakeholders in the Sustainable Development for Higher Education (HESD) program, namely administrative staff, lecturers, students, funding bodies, entrepreneurs and communities (van Weenen, 2000). Sustainability goals will not be achieved without the cooperation and participation of all stakeholders (Alshuwaikhat and Abubakar, 2008; Wright, 2010). Indeed, resistance from stakeholders may be a significant barrier in introducing the concept of sustainable development to universities (Lozano, 2006b). University support for achieving HESD should be reflected in the related objectives, vision and statement of sustainability (Comm and Mathaisel, 2005; Lidgren et al., 2006; Lozano, 2006b).

The results of research conducted by Manuel Larran Jorge, Jesús Herrera Madueno, María Yolanda Calzado Cejas and Francisco Javier Andrades Pena in 2015 on an approach to implementing sustainable practices at Spanish universities, revealed that sustainability issues in higher education institutions have increasingly attracted the attention of policymakers and the public in recent decades. A number of previous studies have called for a more comprehensive integration of sustainable development into universities' main operations and curriculum. However, there are not enough studies investigating sustainable development in higher education in Spain. The results of a study conducted by Xueliang Yuan and Jian Zuo (2013), regarding a critical assessment of universities about sustainable development from a student perspective, stated that the past decade has witnessed a rise in public awareness of sustainable development, and sustainability issues in higher education are no exception. The conclusion of this research is that higher education plays an important role in achieving sustainable development from a local to a global level.

Some of the above research mentioned HESD, which is used in order to improve the quality of higher education services. Therefore, the authors are interested in examining the efforts of Universitas Airlangga to support the concept of sustainable development, in order to improve reputation and improve the quality of services provided to all interested parties. Management support in this case was via the rector, will help determine the success and improve the quality or quality of higher education. University competitiveness is influenced by the support of those who manage and have an interest in the institution. (Tan, C.L. et al, 2017).

This study focused on the environmental, social and educational aspects of sustainable development in higher education. There are other dimensions of sustainable practice at the university, for example, time, economics and the interaction between these dimensions, but these are not examined in this research. When summarising a lot of the research that has been put forward, there are still not many who examine critical assessments conducted simultaneously in the academic community, namely lecturers (teaching staff), administrative

staff and students. Therefore, this research aims to identify the results of critical assessments carried out by three academics at once, namely from the perspective of the teaching staff, administrative staff and students of the Faculty of Economics and Business as one of the faculties at Universitas Airlangga.

The problems in this study are: (1) how the critical assessment of teaching and administrative staff operates when implementing the HESD concept, and (2) how students' critically assess the implementation of the HESD concept.

### **Research Method**

This study uses a descriptive qualitative approach, with a case study method. The descriptive analysis used in this study was to identify critical assessments from the perspective of teaching staff, administrative staff and students concerning HESD and processing data descriptively, using the analysis of Graphical Assessment of Sustainability in Universities (GASU).

The research method is based on a GASU, specifically looking at environmental, social and educational aspects. Economic aspects are not included in this study, because many facts show that all state-owned universities in Indonesia are not seeking profits. As a result, the university's economic performance does not get high priority. Other aspects of HESD are also discussed in this study, such as management systems, research and development, incentive and staff development, and student opportunities. GASU is designed to assess sustainable performance in higher education institutions (Lozano, 2006a). GASU is a modification of the Global Reporting Initiative Sustainability Guideline, designed for higher education institutions. This guide consists of four dimensions, namely economic, social, environmental and educational, with 126 indicators (Lozano, 2011). Each indicator was assessed, and then identified, based on the perspective of teaching staff, administrative staff and students of the Faculty of Economics and Business, Universitas Airlangga.

In this study, primary data were obtained through questionnaires and interviews. The participants in this study are teaching staff, administrative staff, and students who are still actively conducting lectures for at least four semesters. The questionnaire survey activity was carried out between September and November 2018. The questionnaires distributed to students were slightly different from those distributed to teaching staff and administrative staff. These were slightly altered to better fit the different roles among teaching staff, administrative staffs and students, so that there was no improper assessment.

The questionnaire consisted of two parts. The first part was designed to gather demographic information from participants. The second part examined the academic community's assessment of HESD. Surveys have become one of the common approaches to identifying

assessments from the perspective of teaching staff, administrative staffs and students on sustainability issues in the higher education sector (e.g. Tuncer, 2008; Emanuel and Adams, 2011). The HESD is assessed by the teaching and administrative staff through 39 questions, grouped in seven areas (management systems, sustainable environmental programs, sustainable curriculum programs, research and development, incentives and staff development, student opportunities and social responsibility). Meanwhile, the assessment of students included 35 questions, grouped in six areas (management systems, sustainable environmental programs, sustainable curriculum programs, research and development, student opportunities and social responsibility). This is done because the students are assumed to be incorrectly assessing the area of incentives and staff development (beyond the understanding and role of students).

### **Discussion Result**

The characteristics of participants in this study consisted of teaching staff from four departments, administrative staff and students, who actively conducted lectures for at least four semesters. The total number of teaching and administrative staff was 142 people. The questionnaire distributed to staff consisted of seven dimensions of HESD, described via 39 indicators (statements). The number of teaching and administrative staff participating in this study was 56 people.

The total number of students in the Faculty Economics and Business, Universitas Airlangga until 2018 is 2,124 students. The students who meet the requirements to become participants in this study are studying in their fifth and seventh semesters. The assumption given for these criteria is that, if students have taken more than four semesters of lectures, students were able to assess the dimensions of HESD, based on their longer experience than students in their first or third semester. There were 415 students who participated in the study. As this study uses a descriptive qualitative approach, the number of participants was considered sufficient and qualified to interpret the results.

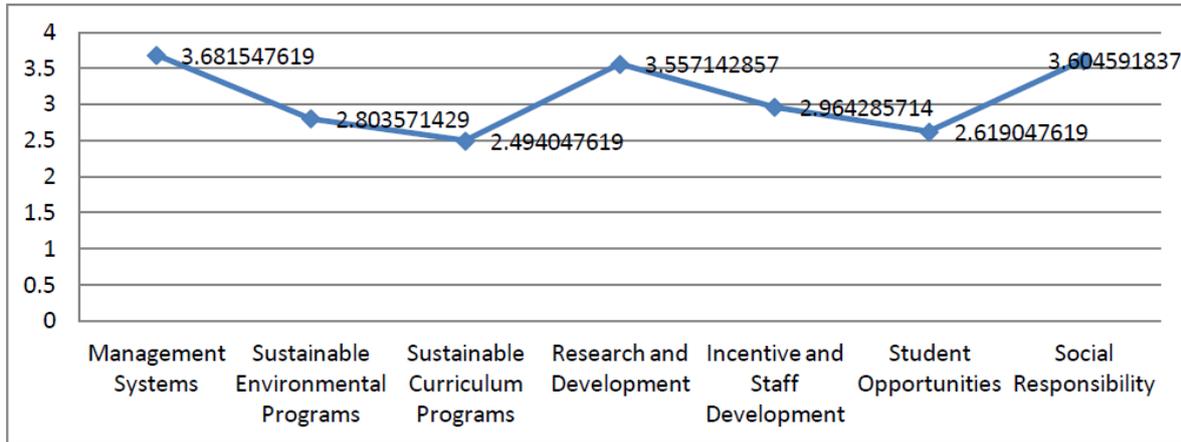
The interpretation of the results is divided into two parts, adjusted to the perspective of the Faculty. Firstly, the critical assessment of the HESD dimension from the perspective of teaching and administrative staff, and secondly, the critical assessment of the HESD dimension from the perspective of the students.

#### ***The Results of Critical Assessment of Teaching and Administrative Staff***

As part of the academic community in the Faculty, providing services and managing education for students and the surrounding community, the perceptions of teaching and administrative staff on the HESD dimensions consist of management systems, sustainable environmental

programs, sustainable curriculum programs, research and development, incentives and staff development, student opportunities and social responsibility.

**Figure 1.** Critical Assessment of Teaching Staff and Non-Education Staff on the HESD Dimension

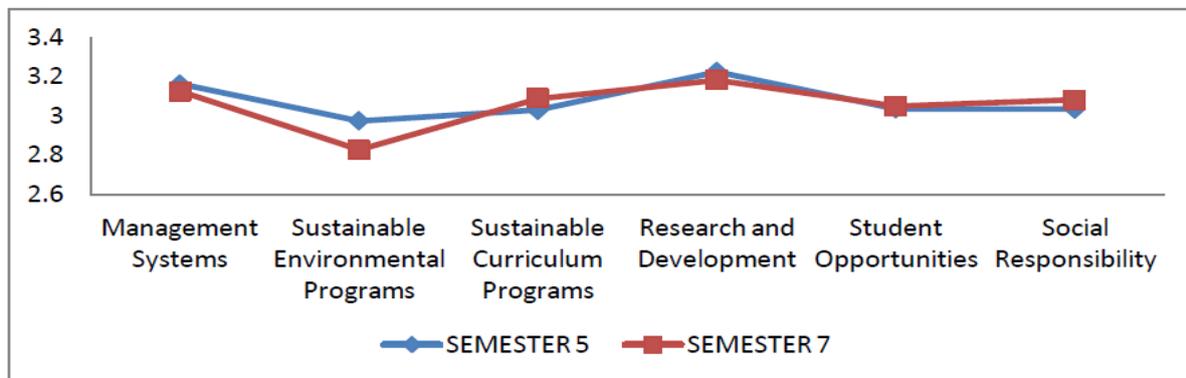


The results of the average calculation of the answers, from the critical assessment of the teaching and administrative staff, were processed using Microsoft Excel, which produced a graphical visualisation – a GASU analysis. Referring to the graphical results in Figure 1, it can be concluded that the highest average perceived by the teaching and administrative staff was the management systems dimension, followed by the dimensions of social responsibility and research and development. Whereas the assessment that is felt lacking by teaching and administrative staff were the dimensions of incentive and staff development, the sustainable environmental programs, student opportunities and sustainable curriculum programs. Thus, the Faculty Manager, the Dean and Department Managers should pay more attention to the dimensions that are considered to lack average values above point three, because they certainly feel unsatisfactory for teaching and administrative staff, in the context of sustainable development of higher education in teaching and learning, and community service.

### ***The Results of the Students' Critical Assessment***

Students are one of the most important academic sections of the Faculty of Economics and Business, Universitas Airlangga. This is due to the fact that students are one of the stakeholders who experience teaching and learning in the Faculty directly. In other words, students are consumers, who are expected to perform, and who also are able to improve the quality of Faculty education services indirectly, especially through their understanding and assessment of HESD dimensions, which consist of management systems, sustainable environmental programs, sustainable curriculum programs, research and development, student opportunities and social responsibility.

**Figure 2.** Students' Critical Assessment on HESD Dimensions



The results of the calculation of the critical assessment of students in semester five and semester seven are processed using Microsoft Excel, producing a GASU graphical visualisation. Referring to the results in Figure 2, it can be concluded that the highest average reported by students in both semesters is the research and development dimension. Whereas the assessment showed that these students gave varied averages on the sustainable environmental programs dimension. In this dimension, there were striking differences in the ratings given by the different students of the semester. Thus, the Faculty Manager, the Dean and Department Managers, should pay more attention to the dimensions that are considered to lack average values above point three, because they are not good for students in the context of sustainable development.

## Conclusion

The critical assessment of teaching and administrative staff carried out in HESD is implemented through seven dimensions: management systems, sustainable environmental programs, sustainable curriculum programs, research and development, incentives and staff development, student opportunities and social responsibility. Referring to the results of descriptive analysis, using GASU, it can be concluded that the highest average perceived by the teaching and administrative staff is the management systems dimension, followed by the dimensions of social responsibility and research and development. Whereas the assessment that is felt lacking by the teaching and administrative staff are the dimensions of incentive and staff development, sustainable environmental programs, student opportunities and sustainable curriculum programs.

The managerial implication is that the Faculty management, the Dean and Department Managers should pay more attention to the dimensions that are not getting average values above point three, because this is unsatisfactory for the teaching and administrative staff in the context of sustainable development (HESD) teaching (Tri Dharma Perguruan Tinggi). Critical assessment of students (in semesters five and semester seven) was carried out by looking at the



HESD dimensions of management systems, sustainable environmental programs, sustainable curriculum programs, research and development, student opportunities and social responsibility. Referring to the results of the descriptive analysis – again, using GASU – it can be concluded that the highest average scores of students, both in semester five and semester seven, is the research and development dimension. Whereas the assessment showed that these students gave varied averages on the sustainable environmental programs dimension. In this dimension, there were striking differences in the ratings given by the different students of the semester.

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