



Substantial Aspects and its Relationship with the Research Results of Lecturers

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ABSTRAK

Berdasarkan delapan bidang fokus penelitian pendidikan, perlu didukung informasi bukti yang jelas berdasarkan bidang fokus yang tertuang dalam rencana strategis penelitian Universitas Pendidikan Ganesha. Penelitian ini bertujuan untuk menganalisis dan mendeskripsikan aspek substansi dan hubungannya dengan hasil penelitian dosen di Undiksha. Penelitian ini merupakan jenis penelitian *ex-post facto* dengan meta analisis. Subyek penelitian ini adalah seluruh dosen dan tenaga fungsional Undiksha. Obyek penelitian ini adalah skema penelitian, bidang ilmu, peta jalan penelitian, visi misi, dan keahlian dosen dalam penelitian. Teknik pengumpulan data adalah observasi, dokumentasi, dan angket respon. Hasil penelitian menunjukkan bahwa (1) perlunya pengetahuan dosen mengenai dasar penyusunan road map penelitian. Terdapat penelitian dengan kualifikasi 30,06% mencantumkan road map yang sesuai, 6,19% menyertakan road map yang tidak sesuai, dan 63,75% tidak memuat road map. (2) Penelitian yang ada sudah sesuai dan mendukung visi dan misi LPPM Undiksha. (3) Keahlian dan minat mendasari pemetaan kelompok penelitian di masing-masing program studi. Sebanyak 93,3% penelitian dosen adalah tentang kebutuhan pengembangan program studi. Hasil penelitian ini menjadi dasar pendukung dalam mengembangkan desain keberlanjutan dalam penelitian bagi dosen dan dasar pembentukan kelompok penelitian.

ABSTRACT

Based on the eight focus areas of educational research, it is necessary to support clear information on evidence based on the focus areas contained in the strategic research plan of the Ganesha University of Education. This study aims to analyze and describe the substance aspects and the relationship with the research results of lecturers at Undiksha. This research is a type of *ex-post facto* research with meta-analysis. The subjects of this research were all Undiksha lecturers and functional staff. The objects of this research are research schemes, fields of knowledge, research road maps, vision and mission, and lecturer expertise in research. Data collection techniques are observation, documentation, and response questionnaires. The results of the research show that (1) the need for lecturer knowledge regarding the basis for the preparation of the research road map. There is research with the qualification that 30.06% include an appropriate road map, 6.19% include an inappropriate road map, and 63.75% do not contain a road map. (2) Existing research is appropriate and supports the vision and mission of LPPM Undiksha. (3) Expertise and interest underlie the mapping of research groups in each study program. As much as 93.3% of the lecturer's research was on the need for study program development. The results of this study serve as basic support in developing sustainability designs in research for lecturers and the basis for forming research groups.

1. INTRODUCTION

Education is a good and strategic tool to develop and improve the development of various sectors, such as the education sector, especially the economy, infrastructure, and values of sustainable development. Development in various sectors includes developing students' mindset as a subject to prepare for future needs (Indrati & Hariadi, 2016; Rahmawati et al., 2021). Higher Education Institutions have a strategic role in welcoming the industrial revolution 4.0 era (Astuti et al., 2019; Santika, 2021). According to the Undiksha Chancellor's Regulation, the implementation of higher education is an endeavor to prepare the younger generation to have a noble character and superior academic and intellectual competence as a provision for wading through life in the future. Universities have a strategic position in the development of education. Universities are always expected to develop themselves and be responsive to social, economic, cultural, and environmental changes to articulate the needs of national development and social life in general (Musanna, 2017; Vastyanov et al., 2021).

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Important sectors owned by higher education institutions have the potential to develop various strategies, programs, and activities to achieve goals. Regarding nationality, higher education is one of the hopes to realize the national ideals and mandate an intelligent, just, prosperous, and prosperous Indonesia (Irfani et al., 2021). Based on the 2020-2024 Strategic Plan of the Ganesha University of Education, the organizational values of the Ganesha University of Education are based on academic norms. The organizational values of the Ganesha University of Education embody devotion, honesty, integrity, responsibility, ethics, quality, innovation, excellence, caring, discipline, deliberation, and ecological values. Based on these values, Undiksha is committed to developing students to become human beings who are cultured, humane, superior, and highly competitive so that they can contribute and devote themselves to their homeland, nation, and humanity. The development of these values produces graduates capable in science, technology, and art, both in the educational and non-educational fields, to meet society's current and future needs.

Ganesha University of Education (Undiksha) is one of the higher education institutions with roles and responsibilities in realizing national development goals, especially development in education as mandated in the law on the National Education System and the law on Higher Education. Undiksha was developed based on Pancasila and the 1945 Constitution, which upholds human values, produces educational and non-educational staff who fear God Almighty, have high academic-professional abilities, and develop science, technology, and art. Undiksha has the main mandate for the development of educational staff and the mandate for the development of non-educational staff. Higher education is responsible for becoming a source of development and implementation of education for sustainable development, a global issue (Erlina et al., 2022; Supriyadi et al., 2020). This mandate is outlined in one of the goals of Undiksha itself, namely studying, applying, and developing science, technology, and art, both in the educational and non-educational fields. To welcome the era of globalization, which has entered the revolutionary era 4.0 and carry out the mandate given by Undiksha, it has determined for the next 25 years, namely the vision "Becoming an Excellent University Based on the Tri Hita Karana Philosophy in Asia in 2045.

Tri Hita Karana is a philosophy of life originating from the Balinese people, which contains three elements that build balance and harmony in the relationship between humans and God, humans and humans, and humans and the environment, which are a source of welfare, peace, and happiness for human life (Lilik & Mertayasa, 2019; Suastra & Yasmini, 2013). Tri Hita Karana can contribute to humanizing education because it contains theological, humanist, and ecological values. These values are indispensable for developing awareness of the mono-pluralistic dimension of humanity. It does not only develop intellectually intelligent humans but also has spiritual intelligence, social intelligence, and ecological intelligence (Dewi et al., 2020; Rai et al., 2022). Tri Hita Karana is a reference for sustainable development within Undiksha. Tri Hita Karana, as a philosophical foundation in realizing Undiksha as a superior university in Asia, has a very strong foundation in human philosophy and educational philosophy (Rasmini & Mimba, 2021; Suryawan et al., 2020). All efforts undertaken by Undiksha are directed at producing people with strong Indonesian national character (nationalism). The Undiksha community is expected to become Indonesian citizens who have Indonesian identity, have comprehensive intelligent character, and are actively ready to build an orderly, just, safe, and peaceful world life, per the Pancasila State Principles and the 1945 Constitution.

Ganesha University of Education (Undiksha) has the task of organizing the tri dharma of higher education (education, research, and community service) effectively and efficiently through the center of the research and community service institute (LPPM) (Indrawati, 2020; Syakur et al., 2020). Recognizing that community service is the main task of lecturers in tertiary institutions, in its implementation, it must be translated into programs that have clarity regarding their goals, forms, and objectives. In clarifying the policy direction in managing institutional research, Undiksha gradually and continuously develops a strategic research plan considering developing issues and their resources (Díez et al., 2020; Flood & Banks, 2021). Undiksha's research strategic plan is a five-year planning document for the research sector as an elaboration of Undiksha's vision and mission. In this regard, the form and pattern of service are adapted to the vision and expansion of its main mandate as an educational institution for teaching staff and in the non-educational field. For now, the form/pattern of Undiksha community service activities continues to target audiences in schools and outside schools/the general public, groups, communities, and institutions in urban and rural areas (Handayani, 2020; Magomedkhan & Sadovoy, 2021). Realizing that service is one of the main dharma of higher education, the strategies for community service development that will be developed in the future are: (1) implementing P2M based on the principle of benefit to the community, (2) increasing counseling and technical and consulting services for the community in various fields; (3) symmetrical partnerships with various related parties, (4) optimal utilization of the assets of the Ganesha University of Education is strategic, both in terms of location and operations.

Based on the eight focus areas of educational research, it is necessary to support clear information on evidence based on the focus areas contained in the strategic research plan of the Ganesha University of Education. Lecturer research can be by the topics in the LPPM strategic plan. In addition, the existing road map needs to fully support a clear focus on each lecturer's expertise, interests, and needs according to the topic of their field of study. The formation of research groups must be supported by excellent lecturer research (Kintamani DH, 2011; Sihombing, 2020). The Research Group is a forum for lecturers with related and complementary fields of specialization to realize the main objectives based on their research roadmap jointly. Many lecturers' research needs to follow the road map or the results of other people's research (Hwang et al., 2020; Made Sudana et al., 2019). The road map shows the important things that were done today as a continuation of previous research. In addition, the research groups at Undiksha have not used superior lecturer research and are not multidisciplinary & interdisciplinary.

Thus, this research was conducted as a meta-analytic research study on the potential for excellence in lecturer research at the Ganesha University of Education. This research is expected to produce an aggregation of conclusions in the form of accurate information about the leading research at the Ganesha University of Education. Based on the background of the need for this research, the researcher proposed a research title, namely Research Identification of Lecturers at Ganesha University of Education Based on the Road Map, Vision-Mission Suitability, and Expertise-Interests. This study aims to analyze the suitability of the research road map of the lecturers at Ganesha University of Education for the support of the research focus. Moreover analyze the relevance and relationship of the lecturer's research with the vision and mission of LPPM Ganesha University of Education. And analyze the achievement of research results for the focus of the field lecturer research on the strategic plan of the University of Education of Ganesha for 2022-2026.

2. METHODS

The type of research carried out is ex-post facto. Ex-post facto research examines causal relationships that the researcher does not manipulate or treat. The research was conducted using a meta-analysis approach by combining research data, tracing, reviewing, and analyzing research data from previous findings to make the results inclusive. The research method used in this study is meta-analysis, namely a narrative review or systematic review by analyzing research results published nationally and internationally. In addition, meta-analysis can be a source of foundation in policy making. For researchers, it is important to know the method for conducting meta-analysis (Tutiareni et al., 2021). This research applies mixed methods, which combines qualitative and quantitative approaches. This research was conducted at the Ganesha University of Education. The subjects of this research were all Undiksha lecturers and functional staff. The object of this research is in the form of artifacts, namely research schemes, fields of knowledge, research road maps, promised outcomes, research topics, and research related to Tri Hita Karana as Undiksha's core value. Data grouping is done on research subjects with various types of lecturer positions and on objects with types of schemes in research programs that the campus has offered.

The data collection instrument used by researchers was using research instruments in questionnaires for validators and lecturer responses. Measurement in the validity instrument uses a Likert scale which is usually used for quantitative analysis by giving a score to the answer (Sugiyono, 2014). A questionnaire was prepared to determine the results of observations and responses for collecting quantitative data. The type of data researchers developed consists of quantitative and qualitative data. Quantitative data were obtained from the analysis of research results documents. Data collection techniques include observation and questionnaires. Observations are unstructured observations that need to be prepared systematically about something to be observed. In this activity, the researcher uses observation signs, meaning that the researcher does not use certain instruments. Qualitative data were obtained when the researcher collected supporting data for quantitative results at the analysis stage, namely a questionnaire of interview respondents (quotas representing each scheme). After quantitative data analysis, a qualitative analysis was carried out of three activities simultaneously: data reduction, data presentation, and concluding/verification (Miles et al., 1994).

3. RESULT AND DISCUSSION

Results

Research Road Map of Lecturers at the Ganesha University of Education on Support for Research Focus

The results of the analysis of research report documents for lecturers at Ganesha University of Education in 2022 recorded as many as 469 research reports with details of the number of studies for each scheme, namely as many as 100 research reports for novice lecturers, 190 basic research, 76 applied

research, 27 development research, eight functional staff research, 68 research group. Research reports for foreign cooperation schemes and indexed professor acceleration schemes are not available based on the results of the document analysis that has been carried out. The mapping of lecturer research to be carried out in 2022 based on each research focus area can be seen in [Figure 1](#).

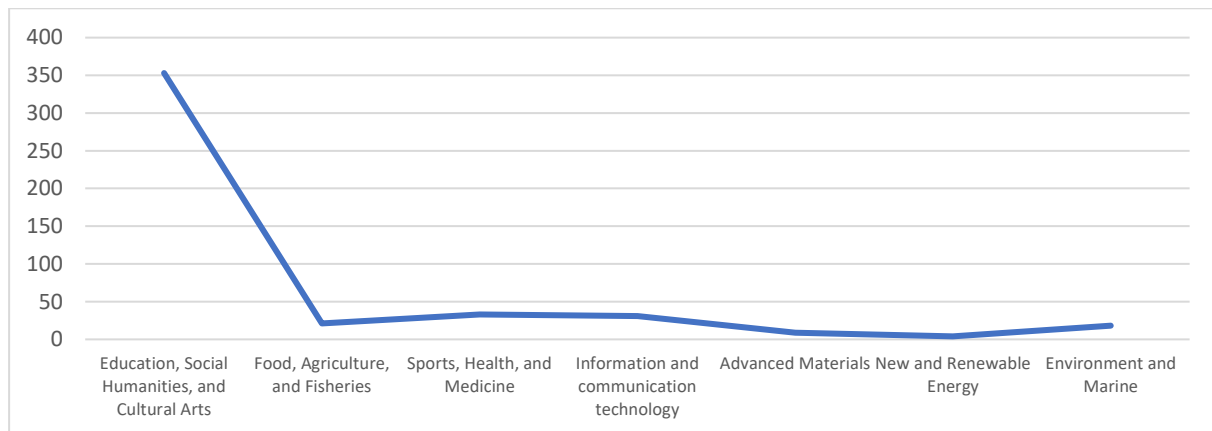


Figure 1. Number of Research by Undiksha Lecturers in 2022

[Figure 1](#) shows that of the 469 research reports of lecturers analyzed in this study, 75.26% or 353 research reports referred to the focus of the first research field, namely education, social humanities, and cultural arts. The least number of lecturer research reports identified was the focus on New and Renewable Energy research, as much as 0.8% or four research reports. Road map analysis result is show in [Table 1](#).

Table 1. Road Map Analysis Results

| The Focus of the Research Field | Number of Reports | Road Map | | |
|---|-------------------|------------------|--------------------------|------------|
| | | Exist (Suitable) | Not Exist (Not Suitable) | None |
| Education, Social Humanities, and Cultural Arts | 353 | 104 | 22 | 227 |
| Food, Agriculture, and Fisheries | 21 | 6 | 1 | 14 |
| Sports, Health, and Medicine | 33 | 7 | 1 | 25 |
| Information and Communication Technology | 31 | 11 | 1 | 19 |
| Advanced Materials | 9 | 5 | 1 | 3 |
| New and Renewable Energy | 4 | 1 | 2 | 1 |
| Environment and Marine | 18 | 7 | 1 | 10 |
| Total | 469 | 141 | 29 | 299 |

Base on [Table 1](#), the results of the Road Map Analysis show that 30.06% of research reports contain road maps and have similar topics or studies every year, and 6.19% of research reports contain road maps but do not match the topics or studies. For research reports that do not include a road map, it accumulates as much as 63.75%. The results of the further analysis show that the lecturers still need to include their research roadmap from each research focus area and demonstrate its suitability with the selected research focus area. The percentage of road map analysis for each focus area of research from Undiksha's environmental lecturer research can be seen in [Figure 2](#).

Base on [Figure 2](#), the inconsistency of the road maps made by the lecturers in their research is seen from the gap between the research that was carried out previously, at this time, and the research that will be carried out. The gap is also seen in the need for conformity with the focus of the chosen research field. It is in line with the results of a survey of Undiksha environmental lecturers who stated that they did not know the basis for forming a research road map. The road map included is mostly in the form of research studies from other previous researchers rather than from research that has been, is being done, and will be carried out by lecturers with the same topic every year.

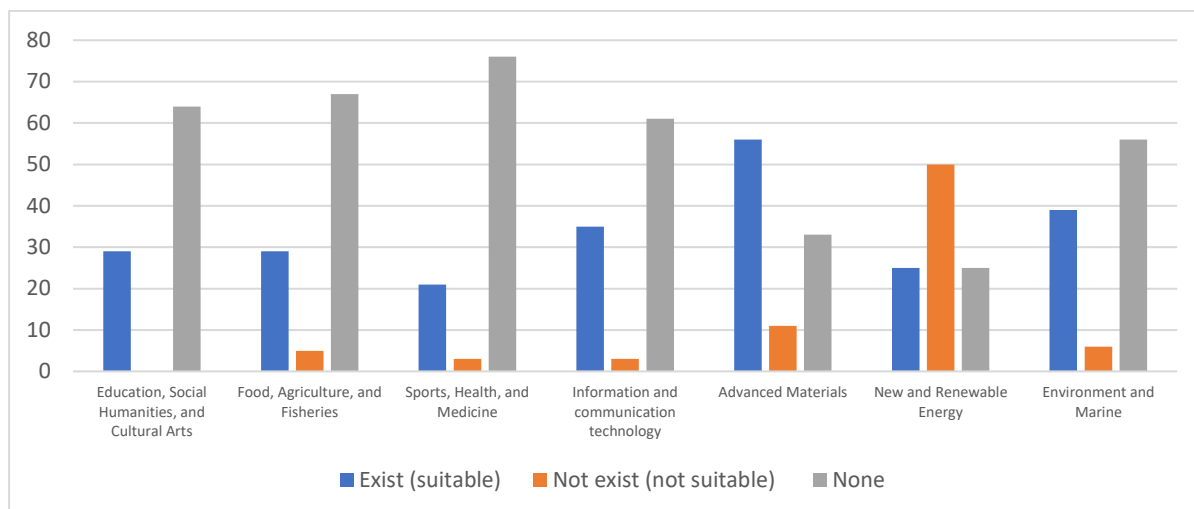


Figure 2. Lecturer Research Road Map

The Relevance of the Lecturer's Research to the Vision and Mission of LPPM at the Ganesha University of Education

The research carried out by the lecturers should align with the vision and mission of LPPM at the Ganesha University of Education and map the research group to the focus of the research field. Further elaboration of the analysis results found that 98.5% of the reports followed the vision and mission of LPPM Ganesha University of Education. Still, the other 1.5% could not be analyzed clearly because the reports collected only contained cover and endorsement pages. The study's results were not shown clearly, so it wasn't easy to analyze whether they were to the vision and mission developed by LPPM Undiksha.

Achievement of Lecturer Research Results on the Focus of the Research field of the Ganesha University Education Strategic Plan in 2022-2026

The suitability of the research with the research focus in the strategic plan has yet to be fully met. From the document analysis results, 5% or 20 lecturer research reports still need to be by the research focus in the strategic plan. This is in line with the results of interviews with several lecturers from the Faculty of Languages and Arts, both from the study programs of English Language Education, Japanese Language Education, and several other study programs, that most of the study programs in the Faculty of Languages and Arts have not formed a research group because the study programs have already had a scientific field for lecturers which contains a mapping of each lecturer according to their respective fields of expertise. Every time they conduct research, lecturers will choose their team according to the mapping of their expertise related to the type of research to be carried out. The distribution of questionnaires succeeded in obtaining data from 45 respondents, namely Undiksha environmental lecturers. The responses submitted indicated that several lecturers were still confused about the division of research groups.

LPPM Undiksha has determined seven research focus areas with topics and themes in the 2022-2026 LPPM Undiksha Strategic Plan. The results of the questionnaire analysis show that lecturer research determines research focus based on the development needs of each study program, lecturer research excellence, and research group mapping. Of the 45 respondents who filled out the questionnaire, 93.3% had researched the development needs of their study program, and 6.7% still needed to comply with the development needs of their respective study program. This discrepancy is due to the determination of the focus of the research field, which is carried out only according to one factor, namely the research group, without adjusting to the needs of the study program. The road map can be a plan for collaboration across more multidisciplinary study programs. The resulting research impact can also be an institution's contribution to regional and central development.

Discussion

This study obtained several findings. First, there are still so many lecturers who still need to make road maps in their research. It can be seen from the results, namely as much as 63.75%. The inconsistency of the road map made by the lecturers in their research is seen from the gap with the road map components, namely 1) research activities that have been carried out, 2) research activities that will be carried out in this

period, and 3) research activities in the next period which will guide a researcher reach its final destination (Fajar et al., 2022; Irfani et al., 2021; Susanti et al., 2021). Procurement of training and further explanation needs to be done, bearing in mind that there are still quite several lecturers who need help understanding the making of a road map and the purpose of a road map in research. It is by the purpose of having the road map itself, namely to determine the direction of the research being carried out and what targets will be achieved throughout the professional career of the lecturer himself. The domains of the research roadmap are the realm of education, the realm of business, and the realm of bureaucratic reform. In the academic field, the road map is identical to the research road map because only this program or research activity is the most appropriate (Ghasya et al., 2023; Notosudjono et al., 2021). The road map also shows what fields are the mastery of expertise or expertise of each lecturer.

The second finding is that the lecturers' research is by the vision and mission of LPPM. These visions and missions align with the vision and expansion of its main mandate, namely Undiksha's vision and mission as an educational institution for teaching staff and in the non-educational sector. Ganesha University of Education (Undiksha) has the task of organizing the tri dharma of higher education (education, research, and community service) effectively and efficiently through the center of the research and community service institute (LPPM). The vision of the LPPM itself is to become a center for developing and applying superior and characterized science and technology based on Tri Hita Karana. To implement the vision above, LPPM Undiksha has several missions: to develop research and community service oriented towards developing science and technology globally based on Tri Hita Karana (Mandra & Dhammananda, 2020; Suhari et al., 2019).

The third finding is seen from the results of the lecturer's research on the focus of the research field in the Undiksha Strategic Plan. The first achievement can be seen in forming a research group to focus on research areas in the Strategic Plan. The formation of indexed research groups differs from the focus of the research field. It is because many lecturers still carry out research that is not by the focus set by the LPPM strategic plan, and there is no definite establishment of research groups. A research group is a collection of research activities carried out by researchers in the field of expertise, experience, skills, and talents in the same field of expertise to produce relevant research. This group brings together researchers from other research groups to work on the same issues and topics. The reference point for forming research groups in each study program needs to be implemented properly (Adityarini, 2021; Wigati et al., 2023). The formation of a research group must be consistent in choosing a focus of study, for it appears that researchers of only some fields have been formed, which would indicate the shallowness of a research study. So that there are still many study programs that need to map research groups to lecturers, or even research groups that have been formed are outside each lecturer's expertise and interests.

Some of the research conducted still consisted of different chairpersons or members. It must be considered again, given the importance of forming research groups. The second achievement of the lecturer's research results is the basis for determining the focus of the research field in the lecturer's research. The results of the questionnaire analysis showed that the lecturers' research had yet to determine the research focus based on the development needs of each study program, the superiority of the lecturers' research, and the mapping of research groups (Prastyawan et al., 2023; Purnomo et al., 2019). The resulting research can become a study program development need, so it can be one of the considerations in carrying out accreditation nationally and internationally. Determining the focus of the research field should be done consistently with the background of the study and study program to avoid giving the impression that research has been formed, which indicates the shallowness of the essence of a research study. The sustainability of research needs to adjust to the field of science and study program needs. Mapping the excellence of lecturers needs to be done to find the position of each lecturer, study program, and faculty.

Further improvement and understanding are needed regarding the preparation of the road map, the formation of research groups based on the interests and expertise of the lecturers, as well as determining the focus of the research field, which has been aligned with the LPPM strategic plan and the vision and mission of LPPM Undiksha. The research team expressed their gratitude for carrying out this research through research support for the assignment research scheme with SK.

4. CONCLUSION

The results of the research show that there are so many lecturers who need to make a road map in their research. The inconsistency of the road maps made by the lecturers in their research is seen from the gap between the previous, current, and future research. The research conducted by the lecturers is to the vision and mission of LPPM. These visions and missions align with the vision and expansion of its main mandate, namely Undiksha's vision and mission as an educational institution for teaching staff and in the non-educational sector. The formation of indexed research groups differs from the focus of the research

field. Lecturer research has yet to fully determine the research focus based on the development needs of each study program, the superiority of lecturer research, and the mapping of research groups. Therefore, to improve the quality of lecturer research and support the development of LPPM research, it is hoped that the leaders and managers of LPPM at Undiksha can evaluate all research programs that have been running and provide a mapping of lecturer research excellence that needs to be recorded annually with an assessment based on superior indicators that are LP2M has been assigned, for each study program and Undiksha environmental lecturers to be able to study again regarding the rules and components that need to be considered in carrying out research.

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