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Digital Strategic Communication Management in Developing Curriculum of Universitas Pendidikan Indonesia

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Abstract: Today, digital communication in higher education, including in Universitas Pendidikan Indonesia, has a dual importance. First, it is a university instrument where educational activities are carried out in a digital manner. Secondly, it is perceived as having a strategic management function in directing as well as managing the organization of the university, helping it run more efficiently. However, in some cases, the communication system when seen as a strategic management element within Universitas Pendidikan Indonesia (UPI) has not yet been properly implemented. This is especially true when it comes to the role of communication management in supporting curriculum development. This study is based on the background of ineffective internal communication in UPI. One of the strategies needed to accomplish this relates to the digital communication strategy of management policy in the university setting. The purpose of this research is to reconstruct and improve the digital communication strategies in higher education. This study utilizes descriptive methods of research, where information is collected without changing the environment/setting of the study. The instruments for data collection were questionnaires, interviews, focus group discussions, and the study of available documentation. The respondents are members of the management in university level, faculty level, and department level. This research focuses on developing a digital communication strategy for implementing and optimizing institutional communication from a curriculum development perspective. It deals with the role of digital communication function in planning, developing, and evaluating academic programs implemented by Universitas Pendidikan Indonesia (UPI) to become a leading and outstanding university in ASEAN by 2020. The main research outcomes are validated digital communication strategies and management policies of UPI able to implement UPI curriculum in achieving the status of a leading and outstanding university in education.

Keywords: digital strategic communication, communication management, curriculum development.

印度尼西亚国立大学课程开发中的数字战略传播管理

摘要: 今天, 高等教育中的数字通信, 包括在印度尼西亚彭迪迪坎大学, 具有双重重要性。首先, 它是一种以数字方式开展教育活动的大学工具。其次, 它被认为具有指导和管理大学组织的战略管理职能, 帮助其更有效地运行。但是, 在某些情况下, 将通信系统视为印度尼西亚彭迪迪坎大学(统一价格指数)内的战略管理要素时, 尚未正确实施。当涉及到沟通管理在支持课程开发方面的作用时尤其如此。本研究基于统一价格指数内部沟通无效的背景。实现这一目标所需的策略之一与大学环境中管理政策的数字传播策略有关。本研究的目的是重构和改进高等教育中的数字传播策略。本研究采用描述性研究方法, 在不改变研究环境/设置的情况下收集信息。数据收集的工具是问卷调查、访谈、焦点小组讨论和对现有文件的研究。受访者是大学、教职员工和部门级别的管理人员。本研究侧重于从课程开发的角度制

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定数字传播策略，以实施和优化机构传播。它涉及数字通信功能在规划、开发和评估由印度尼西亚彭迪迪坎大学(统一价格指数)实施的学术课程中的作用，目标是到2020年成为东盟领先的优秀大学。主要研究成果是经过验证的数字通信战略和管理政策统一价格指数能够实施统一价格指数课程以实现教育领域领先和杰出大学的地位。

关键词：数字战略传播、传播管理、课程开发。

1. Introduction

Many modern universities tend to use a multicampus system [1]. Universitas Pendidikan Indonesia (UPI), as a public university with a focus on teacher education, uses a multicampus system. It has five regional campuses, with the main campus located in Bandung.

In managing a multi-campus system, UPI focuses on the function of strategic communication as a vital instrument for organizational development. Communication processes are central to broader empowerment practices through which people are able to arrive at their own understanding of issues, to consider and discuss ideas, to negotiate, and to engage in public debates in the campus community and at national levels. It is the empowering role of communication in higher education that helps distinguish it from other forms of communication in managing university programs. In broad terms, the empowerment of communication is believed to be a vital element in university programming, as are efforts to achieve the millennium development goals and other developmental priorities in higher education [2]. However, in some cases, communication systems have not been implemented properly as a strategic management element in higher education at UPI.

The purpose of the digital communication strategy in this research is to support UPI in achieving its 2020 vision and mission through digital communication. This research also intends to contribute to the digital communication model that makes UPI able to act as a coherent and modern organization with a leading digital communication system. The digital communication strategy aims to support management efforts to find that communication can occur for the benefit of the organization in all university programs. In this case, digital communication strategies that have been adopted by universities are built and designed digitally in order to be able to run in accordance with the regulations of UPI as a public university. In this research, digital communication strategies developed by the university are discussed extensively, with a focus on how university regulations and support frameworks are assessed and to what extent digital communication systems at the university are implemented in accordance with internal regulations as well as national regulation as established by the

Ministry of Research, Technology, and Higher Education in the Republic of Indonesia. In the same way, communication strategies that have been implemented at the university, including at the faculty level, are assessed and validated in terms of how useful they are and how much of an impact they had on achieving the goals of university programs. This means that all digital communication strategies at UPI should be planned and implemented in a professional manner. This can be done in several strategic steps: analysis, planning, implementation, and evaluation [3].

Communication programs at UPI will increase awareness of university activities and provide clarity and a representative view of the UPI academic community. Therefore, the digital communication program at the university has a special responsibility to present all academic information clearly and make it easily and digitally accessible. It should find effective forms of digital communication for the benefit of all internal and external stakeholders, including students at the main campus and students at regional campuses. The university is also required to develop a well-designed communication support program for delivering academic programs and a supportive management program. These should be developed in an integrative manner, so that strategic communication is able to create, maintain, and further develop relationships both within the university and with external stakeholders. From a global perspective, education does not amount only to the accumulation of information. We are living in new and modern world, and education should be approached from an interdisciplinary perspective; it must be open to new fields, such as education communication and its role in university management.

From the point of view of organizing higher education, higher education is a pyramidal structure, with internal and external communication systems based on institutional hierarchies. Thus, the structure of a higher education institution can be formulated as follows: at the very top level is the chancellor or president of the university, followed by vice-chancellors (each has a special field of focus: academic affairs, administrative, finance and human resources affairs, development affairs, research, external relations, etc.). At the faculty level, faculty management is represented by the dean, deputy dean,

the heads of departments, and the heads of study programs and other related academic and research centers.

UPI, as a higher-learning institution for teacher education (LPTK), has declared its vision to be a leading and outstanding university in education. To fulfill this vision, first it is to adhere to Law 14, 2005, regarding school teachers and faculty, which confirms that teaching is a professional job. Second, it is imperative to improve teacher quality through the enhancement of teachers' knowledge and pedagogy and through the support of teaching practice in authentic settings. The mission of UPI is as follows: 1) running educational programs to prepare professional teachers and other education professionals to be highly competitive globally, 2) developing innovative theories of education and other disciplines and implementing them as national education policies 3) providing services to communities in professional ways, including helping to solve existing problems of a national scope, either in the field of education or other fields such as politics, economics, and social and cultural matters, and 4) internationalizing education through developing, networking, and fostering partnerships at regional, national, and international levels. The aim of UPI is, among other things, to help students develop the characteristics of faithfulness, piety, integrity, and morally stability while being educated, professional, religious, and dedicated to the nation of the Republic of Indonesia. More specifically, the aim of UPI involves the following: (1) guiding students to become scientists, educators, education managers, and other professionals with the characteristics of faithfulness, piety, professionalism, competitiveness, and national pride; (2) developing and disseminating science, technology, sports, and arts; (3) supporting the development of political life, the economy, social-related matters, culture, education, democracy, peace, science, and civilization.

The programs above require UPI to revitalize its organizational structure as well as communication strategies so that all programs can be socialized and implemented in better ways. UPI should become a powerful organization with strong leadership by utilizing a strategic communication system to carry out all programs in accordance with established policies. All elements of the UPI organization should move speedily and efficiently to roll out a new organizational structure that along with the establishment of a new university, is expected to move the university through a series of system parameter checks and improve its ranking on the list of universities throughout Indonesia and Southeast Asia, and even its international ranking. Since UPI has moved from being state-owned higher education (BHMN) to a public university with legal entity (PTNBH), the reconstruction and the formulation of a new organizational structure is compulsory for accreditation of all university programs. According to

[4], in a study of achieving managerial transition, if they do not have confidence in it, the transition is likely to fail. The core message is that you can build a sense of trust in a transition and while it does take time to build that trust, all related stakeholders should start the process as soon as they can. This transitional period needs extra efforts, especially in developing and delivering a digital communication system that is to be used as a strategic instrument in achieving the main purpose of the introductory phase; which is to fully explain to readers all details of this research. Its role is to catch the reader's attention and provide the reader with a comprehensive understanding of the paper.

The content to be described in the introduction should include some or all of the following:

(1) The rationale, purpose and background of the research. Include the question, the research object and its basic characteristics:

- What work has been done by any predecessors on this issue?
- What are the deficiencies?
- What problems are expected to be solved?
- What is the role and significance of the solution?
- What is the background of the research work?

If you are going to answer the majority of these questions, you may make brief explanations. You should be able to explain a problem in one or two sentences.

(2) Theoretical basis, experimental basis, and research methods. If you follow the known theory, principles, and methods, mention a paragraph or note the relevant literature. If a new concept or term is to be introduced, it should be defined or clarified.

(3) The expected results and their status, role, and significance, should be written in a natural, general, concise, and precise manner. In the introduction, diagrams, tables, and formulas are generally not allowed.

2. Theoretical Framework

Education even at the university level is a dynamic and complex process. It is also often stated that education in higher institutions can assimilate more closely with the social-cultural aspect of the community and like economic goods, delivers exchange amongst the community [30]. In this context, it is the subject of education, humans, who are the element that interacts with society and contributes to communication among communities. In this case, it is believed that the approaches to communication efficiency concepts are so important. They will contribute that the process orientation in education towards quality shall be achieved. The focus of attention to communication in education is a necessity for all education stakeholders. It is the result of the evolution of the education system regarding new trends imposed by national and international strategies and as the result of the competition relationship.

From the education perspective, communication is vital for human development. Communication processes are central to broader empowerment practices through which people can arrive at their understanding of issues, consider and discuss ideas, negotiate, and participate in public debates at community and national levels. It is the role of communication in empowerment processes that helps distinguish communication from other forms of communication. The empowerment-related role of communication makes a vital element in programming efforts that aim to achieve the development priorities in the university program. In institutional hierarchy-based communication, the following characteristics can be found: notification, methodological regulations sent by the chancellor's office to faculty, and vice versa; communication management among stakeholders at the university, faculty, and departmental levels as a grass rote organization in higher educational institutions.

Communication is a key factor in the management of higher education. Communication can be seen as a fundamental component of culture and civilization the progress of life; that is, society requires complicated relationships between sender and recipient, dynamic mediation mechanism, with depth implications in human modeling. The relationship between mediation and communication makes ways for the interpretation of one another. Communication is a means of expressing personal ideas and social relations and, through their goals, an instrument of social change. The key role of communication in higher education institutions, among others, is accepting and interpreting messages sent by university leaders. These phenomena might differ from one person to another and may strengthen and reduce the ability to accept and decode the message in an organizational setting.

Feedback is useful for both the sender and recipient; that is how to behave in communication. Context is also very important in the process of communication. The context of communication is made by all three environmental aspects: family, school, community. These environments must be in a close relationship with each other. Today communication in higher education has a dual role. On the one hand, instruments where educational action is deployed: teaching-learning. Communication can be used in developing curriculum and academic activities [31]. On the other hand, communication in higher education is regarded as a management function in managing the organization. This is a very changing factor because it is an important element that helps change the education system in general and higher education in particular.

In developing communication strategy elements, [5] stated that a strategy is where are you going, and why?: (A) Audiences - what are the key audiences?; (B) Announcement — given the strategy, are you making an announcement? What are you announcing?; (C) Messages —what are you saying about the

announcement? (D) Tactics — how will you implement your strategy before, during, and after the main announcement (assuming you have one)? (E) Issues — what problems may you have to overcome? The communication strategy can be implemented if the communicating planner has already defined his audience and how to talk to it to be well perceived. In the context of education, communication strategies can be seen as an important subsystem when a message should be delivered by education stakeholders to all citizens. In a program education policy relating to national education standards, stakeholders will perform advanced communication and position themselves as wise communicators. Thus, through a communication strategy, a specific program in an educational environment can be used as a central position, especially in the management of systemic education. In addition, as described by [6], communication strategies, systems, and practices play a central role in high performance. Information, understanding, and knowledge are the lifeblood of the organizational body. A thoughtful and comprehensive communication strategy is a vital component of any successful change and improvement. An education and communication strategy sets the tone and direction of improvement efforts.

From these statements, it appears that the communication strategy is a system that is practical and central to the success of the communication process. In the context of the establishment or organization, its communications strategy is the core, which has an organizational life and is a vital component of success. Especially in the field of education, a communication strategy is an important part of a tool through which the direction of educational success can be directed.

Education and science communication simply cannot be separated. In the educational process, there are communication activities performed by each party to achieve the development goals of education. Starting from the aspect of goodness, programs, targets, and elements of the objectives of the communication process are all considered by communicators in education. Thus, a study of communication strategies in education will be the main actor in which many different strategies grow and develop. A study of the relationship between education and communication sciences [6] explained that education and communication strategies influence the energy levels for change and improvement. Strong communications keep everyone focused on goals and priorities while providing feedback on the progress and necessary course corrections. Effective communication strategies, systems, and practices have a huge and direct effect on learning and innovation organizations.

Several curriculum development communication strategies are used in higher education. Each strategy reflects a certain set of priorities on using communication to meet a university's needs:

1) Media-based strategies: Communicators using this strategy usually group their activities around a certain medium they like. This strategy is indeed the easiest, most popular, and certainly most ineffective technique;

2) Instructional design strategy: Users of this strategy are educators or lecturers at the university they work for. They focus on the strategy learning of the intended individuals as a fundamental target. This strategy is based on formal learning theories and focuses on the systemic approach to developing learning materials;

3) Participation strategy: At the university level, principles important in organizing activities are community collaboration and personal growth. In this strategy, the experience of participation as someone equal in obtaining various knowledge and skills is important rather than how much information someone learns through the program development communication. There is a principle in improving the quality to optimally decide whether to outsource an organization's training activities, build in-house training capabilities, or hybridize the two [7].

Strategic management can be realized in a leadership organization implementing specific management, as in the UPI, where many reforms have been performed to implement appropriate strategies in management practices of the university leadership. However, the results may be different and change along with changes in the demands of a growing and developing community. In connection with this, [8] confirms that the strategic management process includes four basic elements, namely: (1) observation environment; (2) the formulation of strategies; (3) the implementation of the strategy; and (4) evaluation and control.

In strategic management, some important things must be considered in an educational organization: (a) how to select the relevant business strategy; (b) the acquisition of resources and capabilities; (c) how to apply marketing strategies; (d) how to apply financial strategy; (e) strategy implementation, research, and development; (f) human resources' strategies.

Strategic management will eventually teach leaders in the top management to analyze the needs and desires of the key managers. This effort is important to remember in organization management. Certainly, leaders have some behavior styles growing and developing with a particular organization style and gracing it as a whole. Based on this phenomenon, [8] said that selecting the best strategy is not the end of the strategy formulation. Current management should establish policies to determine the basic rules of implementation. These policies also provide guidelines for decision-making and action across the organization.

A university is certainly a very complex system, and its development aims to meet the desires of all parties. Without exception, UPI certainly has many important

elements and is powerful in it. The parties are still not satisfied with it. Thus, university leaders should be able to absorb, learn, process, and make it one of the forerunners to policy determination.

Before producing *university-level* managerial policies in the UPI, there were no such interesting studies as by researchers from Ohio University on leadership in higher education. [9] defined leadership as a person's behavior when directing the group's activities to achieve the ultimate objective. The leaders' behavior is described in two dimensions: initiation structure and consideration. Initiation structure refers to leaders' behavior in describing the relationship between themselves and the working group members. For forming a pattern organization, channels of communication and methods or procedures are well established. Consideration refers to the behavior showing friendship, mutual confidence, respect, and warmth in the relationship between the leader and his staff members.

The opinions above show that considerate initiators' behavior seems highly preferred. These two dimensions are needed by higher education institutions with dynamic UPI class management and leadership. Through the dynamic process that is high enough, the leadership of the rector at the university management is expected to apply the dimensions expected to be role models for the staff or subordinates in it. Likewise, the delivery of policies is expected to establish good communication channels to implement all the policies together.

3. Research Method

This study utilizes the descriptive method of research. Descriptive studies are usually the best methods of collecting information describing the world as it is and demonstrating relationships among the information units. Descriptive studies can answer questions "what is" or "what was" about education [8]. Focused Group Discussion (FGD) and content analyses were conducted intensively. The content analysis method will be employed to cull from documents the strategic communication in UPI. For the same purpose, interviews and questionnaires of administrators and management were conducted. The FGDs for management, lecturers, and students are employed to look into how all stakeholders at each level understand and apply the institution's communication strategies [10] in implementing curriculum development in terms of curriculum planning, teaching methods and strategies, assessment, selection and utilization of instructional materials.

4. Result and Discussion

Concerning strategic communication to improve academic performance, in this university policy, several programs can be grouped into three major fields: education, research, and service to the community. In

the education sector, strategic communication in UPI are included in the Strategic Plan UPI 2011-2015, namely: (1) improving services and academic quality assurance, both internally or external; (2) developing academic culture; (3) increasing curriculum relevance and competitiveness; (4) strengthening educational and non-educational study programs through the application of the concept of cross-fertilization; (5) improving the competence of lecturers and academic support staff; (6) development of ICT-based learning. This strategy implementation always pays attention to the basic aspects of science, experience, and reputation [11].

In the first area, strategic communication is also addressed related to the service improvement programs and academic quality assurance both internally and externally. As mentioned on the 2011-2015 UPI Strategic Plan, strategic communication focuses on accreditation of study programs by BAN-PT, accreditation of study programs by international professional associations, ISO certification in various units, and the implementation of credit transfers by study programs [12].

Regarding the accreditation of BAN-PT, the 2011-2015 UPI Strategic Plan targets that 100% accredited study programs. In 2011-2015, the number of accredited study programs continued to increase, and at present, 92% of study programs have been accredited, i.e., 126 out of 137 existing study programs. However, the establishment of new study programs in 2011-2015 made BAN-PT accreditation targets difficult to achieve by the end of 2015. A new study program is usually having difficulty in getting good accreditation, especially accreditation A. Currently, 8% or 11 study programs that have not been accredited are new. In addition, the English Language Education Study Program, Citizenship Education, Mathematics Education, Biology Education, Outside School Education, Guidance and Counseling are still in preparation for Asian University Network (AUN) accreditation. These six study programs have integrated undergraduate and graduate programs.

Furthermore, three other targets in the field of academic engineering development have not been achieved, that is, the average number of articles produced by lecturers amounts to two per year, the average lecturer citation index per article is one, and the title average the books produced by lecturers are 0.5 per lecturer per year. Five hundred eighty-seven lecturer articles were recorded in universities until the beginning of 2015. Temporarily, the average citation index has not been well recorded, and the number of books produced by lecturers has not reached the number 0.5 per lecturer per year. Therefore, these three targets must be a priority in the 2016-2020 UPI Strategic Plan. Third, the program targets to increase curriculum relevance and competitiveness in the 2011-2015 Strategic Plan are as follows: 1. 75% of graduate

users are satisfied with the performance of graduates; 2. The level of graduate satisfaction with the benefits of lectures conducted at 4.75 on a scale of five; 3. 75% of the work waiting period for graduates is under two years; 4. 75% of graduates get a GPA above 3.3 (on a scale of 4); 5. 95% of bachelor graduates continue their studies or work; 6. 50% of graduates of S-1 are satisfied with the first income they earn; 7. 75% of students complete their studies on time (D III 6 semesters, S-1 8 semester, S-2 4 semesters, and S-3 6 semesters).

In terms of strategic communication management, as it is indicated by conceptual knowledge perceived by different levels of management in the university, almost all aspects of the new curriculum are well-comprehended by a higher level of management at the university and faculty levels as they are actively involved in conceptualizing, planning, and implementing curriculum program. On the contrary, the low level of strategic communication management in planning and implementing a new curriculum has not yet comprehended it. It means that the entails new curriculum program dissemination needs to be intensified. As it is perceived by the heads of departments, a higher level of management should give more directions to all departments regarding the initial program implementation. It means that strategic communication shall be planned and implemented properly.

In the organizational behavior concerning strategic communication as a means of university management, individuals' self-efficacy has been identified. Heads of all departments and study programs indicated that their belief in implementing the program was considered high (3.5 on a scale of 1-5). This is shown by their efforts in determining stages of program implementation. They expect that a higher level of management gives more direction to the curriculum development team of the faculty in implementing the principles underlying the program. Table 1 shows strategic communication viewed from university management readiness for implementing the curriculum development.

Table 1 The strategic communication viewed from university management

Score	Ideal Score	Percentage
237	300	79.00

The data indicates that 79% of the university management was ready for implementing the curriculum development. This can be interpreted that it has been understood and implemented in terms of strategic communication of the university management. If it is interpreted, 79.00 % is categorized as *know* and *comprehend* as it can be seen from the following data:

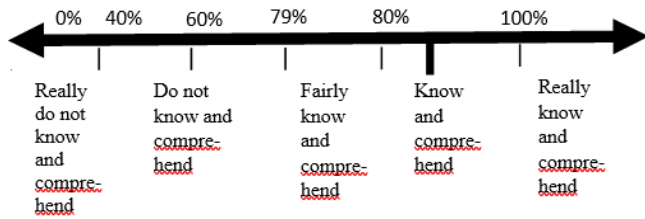


Fig. 2 Range of *knowledge* and *comprehension* of the university management communication strategy for implementing the curriculum development

Furthermore, based on its aspects, the view of the university management towards the communication strategy in implementing curriculum development in terms of planning, implementation, and evaluation can be seen from Table 2.

Table 2 The view of the university management towards the strategy of communication management in curriculum development in Universitas Pendidikan Indonesia

No	Aspects	Score	Ideal Score	Percentage
1	The redesigned teachers' professional education foundation and principles	50	70	71.43
2	The teachers' professional education curriculum component	34	40	85.00
3	The delivery system in implementing the teachers' professional education curriculum	49	60	81.67
4	Scoring system in implementing the teachers' professional education curriculum	16	20	80.00
5	The teachers' professional education management	16	20	80.00
6	Infrastructure	16	20	80.00
7	Human resource mapping	17	20	85.00
8	Partnership and coordination in developing the teachers' professional education curriculum	32	40	80.00
9	Continuous professional development services	7	10	70.00

Table 2 shows that the view of the university management towards the communication strategy on the readiness and the behavior of UPI organizations in implementing the redesigned teachers' professional education falls in the category of *knowledge and comprehension*. The graph of the view of the university management towards the communication strategy management of UPI organizations in implementing the curriculum development can be seen from the following Graph. Concerning project-based learning, [13] explained that such skills are necessary for a successful PBL discussion and may vary from one PBL group to another. However, students' transition from high school, where learning is focused on factual knowledge and learning is passive, to a PBL curriculum, where learning is focused on deep

understanding and cognitive skills, might be challenging to a good number of students, particularly in the first 6–12 months of being in a PBL program.

4.1. Understanding of Communication Strategy in Instructional and Curriculum Planning

Based on focused group discussion (FGD) with lecturers, some points concerning understanding university's communication strategy among lecturers and heads of departments are as follows: Regarding the communication strategy adopted by UPI, most lecturers and heads of departments believe that the communication strategy is very useful in implementing curriculum development, in terms of instructional planning. This finding is based on the decision of [14] about the importance of education and training goals in the education process. It deals with how communication among lecturers, between the head of the department and individual lecturers should be maintained in a formal meeting and everyday life in a campus setting.

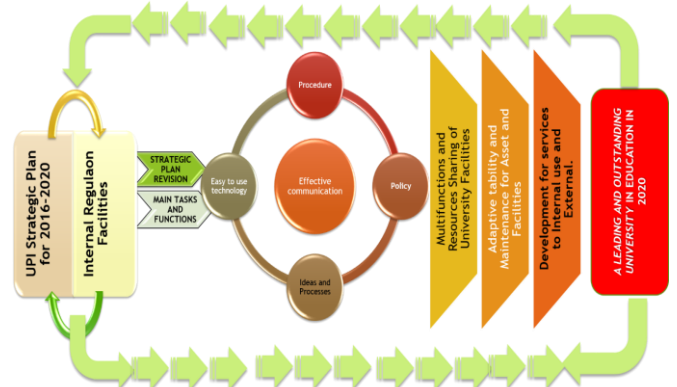


Fig. 3 New perspective model of digital communication strategy in instructional planning

With the knowledge from the FGD as seen above, it appears that strategic communication will have a procedurally effective impact, especially for online learning development. In this case, according to [15], online teaching demand has increased to ensure higher education accessibility. Students need support to adapt to the online context.

4.2. Application of Communication Strategies in Curriculum Implementation

Based on focused group discussion (FGD) with lecturers, some points concerning the teaching methods and communication strategies are as follows: Based on the discussion, methods and learning strategies frequently used are expository, project-based, inquiry, and discussion fitting the objectives to be achieved, the material to be taught, and the needs of learners as prospective teachers. They need specific communication among lecturers and students in conducting meaningful teaching-learning activities. The following findings of [16] support PBL experts: its spread and ultimate globalization. They agree that suitable teaching methods should depend on

communication competencies and be achieved through learning materials and students' character. Teaching and learning these skills could be facilitated using several approaches, such as PBL, small-group learning, mentoring, role models, task-based learning, standardized patients, reflection/portfolios, and 360-degree feedback on the performance [15].

Some lecturers frequently practice communication by modeling and learning on the example and self- or individual study. In general, the methods used include an expository approach in varied lectures, question-answer, and discussion among students. In addition, inquiry and problem-solving methods are frequently used and supported by integrated online learning systems or LMS (Learning Management System) media [17]. The frequent communication strategies are discussion, questioning, questing, and brainstorming (Fig. 4).

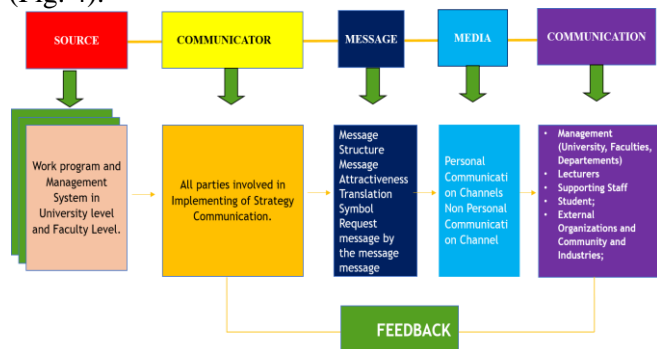


Fig. 4 University academic activity as the strategic communication product

4.3. The Application of Communication Strategies in Curriculum Evaluation

Based on the FGD, most teacher education faculty members revealed that they always incorporate their communication strategies in their assessment and evaluation. Based on focused group discussion (FGD) with lecturers, some points concerning the assessment and evaluation are as follows: In general, professional student-teacher education and communication competency evaluation include structured observation, dispositional evaluation, mid examination, and final test or examination. The mid and final examinations consist of written tests, performance tests, personal and character tests, and portfolio examinations. They need a way of writing and an oral communication strategy. The written test is conducted and communicated under the administration of the Faculty and Department or Study Program. The written test consists of subject matter and subject-specific pedagogy. The performance test is conducted by the Department and Study Program and Partner Schools (if the students are conducting a teaching practice). Some lecturers also conduct social and personal character tests to reveal various aspects relevant to students' personal and social skills. Some lecturers also assign take-home mid and final exams to students. The results of this study will gradually teach self-education to self-sufficient people as potential

future leaders, as explained by [18] with its conclusions that leaders must be able to create sustainable societies. In other words, they also develop students' assessments based on individual, social, and spiritual norms. Individual norm means fostering self-reliance in value. Social norm means realignment and increased confidence. The spiritual norm is based on fostering confidence in the learning results (fostering meaningfulness and usefulness). [19] stated a partial development and test of the implementation strategy.

All tests are carried out under the faculty and department management within a fixed period. In the last three years, all lecturers have been required to upload the grade on the UPI website communication system. All faculty members must be trained to implement the intended communication strategy. It means that the readiness of human resources will be more ready to be productive to achieve a ranking by the Ministry of Research and Technology of Higher Education. The individual responsible for the training and development should be well-informed and possess the expertise and capacity to address all questions posed by the employees.

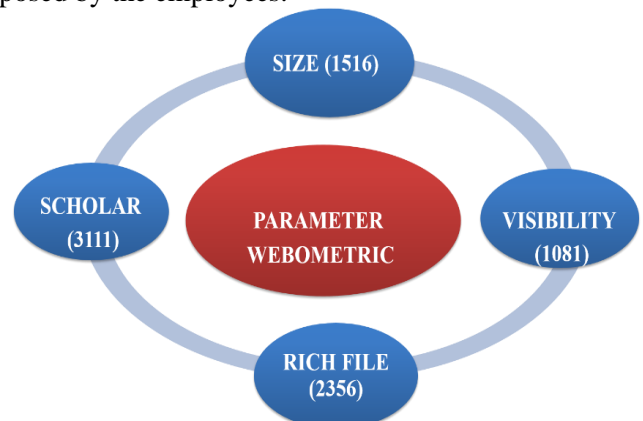


Fig. 5 Scores of each parameter component in webometrics for UPI in realizing the communication strategy prototype towards 2020

4.4. Applying Communication Strategies to Instructional Media

Focused group discussion (FGD) produced certain points concerning incorporating communication strategies in instruction and curriculum development. According to participants, integrating such approaches into the instruction process of communicative teaching-learning programs is usually accomplished through (a) understanding and improving student competence as prospective teachers, (b) developing a written syllabus and lesson plan following faculty and university guidelines, and (c) lecturers' understanding of specific characteristics their students (e.g., diligence, honesty, collaboration). Some lecturers utilize the method of updating learning materials with current topics from e-journals or e-books. Others incorporate specific strategies into the early stages of curriculum development, including meetings for developing syllabi and lesson plans. Ultimately, their communication methods are reflected in lesson plan outlines and are

implemented during teaching-learning activities and evaluations. From the above discussion, it can be concluded that some lecturers at this university have improved communicative pedagogic knowledge and communication skills, including developing teaching experiences in authentic settings and integrating communicative learning teaching theories and practices in the context of practice. Other lecturers have increased the value of communication approaches by interfacing character values, such as honesty, diligence, collaboration, and group communication skills, into teaching-learning activities [11]. Some lecturers have also integrated the soul of "pioneering and excellence" into planning learning materials, emphasizing cutting-edge resources and materials and conducting a communicative and comparative study by using reference standards, including the utilization of the Internet and other information technology devices as means of communication and technology in the 21st century. According to the participants, incorporating communication strategies into the communication and instruction is usually done by emphasizing meaningful

communication of content-based materials and content-specific communication pedagogy to prepare pre-service teachers for communicating and teaching in multicultural contexts. Communicative ethnopedagogy is also introduced while implementing and communicating the instruction. Sundanese values and the spirit of "correct, good, smart manner" are integrated, communicated, and infused into real teaching-learning communication activities, core, and extra curricula [20]. Based on the FGD with lecturers, some points concerning the utilization of instructional materials are as follows: Most respondents have confirmed that they always updated instructional materials that they used in the instructional process. Some common instructional materials spread through social media like publication books, articles published in e-journals, material-based research by the lecturers, and research findings by outside researchers [21]. This result has the opportunity to elevate UPI's institutional quality through satisfying learning services, as explained by [22] about university image and its relationship to student satisfaction.

Table 3 Curriculum development communication strategy statistics

Statistics	Communication strategy in curriculum development (instructional planning)	Communication strategy in curriculum development (methods and strategies)	Communication strategy in curriculum development (assessment)	Communication strategy in curriculum development (utilization of media)
Mean	3.5714	3.4000	3.5714	3.3857
Median	4.0000	3.0000	4.0000	3.0000
Std Deviation	.67182	.64606	.64989	.64365
Variance	.451	.417	.422	.414
Range	2.00	2.00	2.00	2.00
Minimum	2.00	2.00	2.00	2.00
Maximum	4.00	4.00	4.00	4.00

Table 3 shows that the application of communication strategies in curriculum development in universities produces variations. The data shows that the aspects of learning planning and assessment occupy the highest score of each 3.5714. The aspects of strategy and learning method score 3.4000, followed by the use of learning media reaching a score of 3.3857. If analyzed from the aspect of consistency shows that the application of communication strategies in curriculum development in UPI is stable, namely with variations from 0.414 to 0.451 with a difference of 0.037, thus it can be concluded that communication strategies in curriculum development at UPI are quite successful. The technical communication model must undergo gathering, organizing, presenting, and refining information [23].

Valid	16	22.9	22.9	32.9
Frequently				
Always	47	67.1	67.1	100.0
Total	70	100.0	100.0	

Table 4 shows respondents' answers on applying communication strategy in their instructional planning. More than half (67%) of the respondents answer *always*. Less than half (22.9%) of the respondents answer *frequently*, and a small number (8.6% and 1.4%) of them answer *rarely* or *never*. This result is potentially the same as from [24], where the pilot intervention is described, aiming to provide GCs with specific strategies and techniques for more effective communication.

Table 4 Applying communication strategy in instructional and curriculum planning

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	1	1.4	1.4	1.4
Rarely	6	8.6	8.6	10.0

Table 5 Applying communication strategy in teaching methods

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	1	1.4	1.4	1.4
Rarely	5	7.1	7.1	8.6

Continuation of Table 5

Valid Frequently	30	42.9	42.9	51.4
Always	34	48.6	48.6	100.0
Total	70	100.0	100.0	

Table 5 shows that the respondents' answers to the questions on applying communication strategy in teaching through the teaching methods and strategies used. Less than half (48,6%) of the respondents answer *always*. Less than half (42.9%) of the respondents answer *frequently*, and a small number (7.1% and 1.4%) of the two groups of respondents answer *rarely* and *never*, respectively. This result was similar to that of the research about talent management from [25]. Talent is the possession of an extraordinary capability and distinct knowledge. These findings confirm that communication strategies are very important in building a learning culture interacting with the characteristics of children with different origin cultures and psychological features. This finding is based on [26], who explained the quality of culture learning by making connections between the specific culture and the learner's emotions and activating their different levels of emotions.

Table 6 Applying communication strategy in curriculum assessment

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	1	1.4	1.4	1.4
Rarely	5	7.1	7.1	8.6
Valid Frequently	18	25.7	25.7	34.3
Always	46	65.7	65.7	100.0
Total	70	100.0	100.0	

Table 6 shows the respondents' answers to the questions about applying communication strategy in assessing and evaluating students' learning. More than half (65,7%) of the respondents answer *always*. Less than half of them (25,7%) answer *frequently*, and two other small groups of the respondents (7.1% and 1.4%) answer *rarely* and *never*, respectively. This result was conducted by the statement or other result of research from [27] with statement these experiences must have detected educational improvements – knowledge acquisition, attitude towards the subject or materials. From these findings, it can be explained about an instrument that measures the ability to conduct an assessment by each lecturer, as explained by [28] that facilitate robust comparisons with other studies: (i) reliability, (ii) validity, (iii) feasibility, (iv) cost-effectiveness, and (v) comprehensiveness with varying levels of difficulty.

Table 7 Applying communication strategy in the instruction media selection

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	0	0,0	0,0	0,0
Rarely	6	8.6	8.6	8.6
Valid Frequently	31	44.3	44.3	52.9
Always	33	47.1	47.1	100.0
Total	70	100.0	100.0	

Table 7 displays the respondents' answer to the questions about applying communication strategies in the selection and utilization of instructional materials. Less than half—47% and 44.3%—of two groups answer *always* and *never*, respectively. A small number (8.6%) of the respondents answer *never*. This result was similar to other result about the main implementation challenges regarding the practical operation of iCBT services, perceived by the therapists and managers of the iCBT services [29]. Future studies regarding specific details of each challenge will be important to strengthen the evidence base of iCBT and to improve uptake and implementation of iCBT in routine care [29].

5. Conclusion

The main findings of this study are as follows. First, university communication strategy policy has been well understood by the university as well as faculty and department management. The impact includes various fruitful communication discussions during class sessions, that bring with them some communication opportunities and forums to the learners to be inspired and motivated. This may broaden their academic and social horizons of communication. Second, most of the academic staff members see that communication strategy are elements of important points as core contents of the communication pedagogical content knowledge. Due to this study, students will possess communication skills.

Related to the communication strategy adopted by UPI management, most lecturers and heads of the departments believe that the digital communication strategy is very useful to implement curriculum development in terms of instructional planning, implementation, and evaluation stages. The implication of the finding is that strategic digital communication among lecturers, between the head of the department and individual lecturers should be maintained and developed not only in formal meetings but also in everyday life in a campus setting.

There are many ways and approaches to incorporating digital communication strategies into communicative teaching-learning programs. The communicative instruction process shall be done

through (i) understanding and improving the communication competence to be achieved by students as prospective teachers; (b) developing a written syllabus and lesson plan according to the guidelines given by the faculty and university; (c) proper oral and written communication knowledge in implementing curriculum in specific subjects in class.

The limitation is that not all stakeholders are ready to value digital communication strategies, infusing digital communicative ways of modeling character values, honesty, hardworking, communicative and collaborating work, communicative learning in groups into teaching-learning activities. As a recommendation for the future in the era of big data and the Internet of things, digital communication of ethnopedagogy shall be prioritized while implementing and communicating the instruction.

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