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Hypothetical Subjects in Curriculum Structure for Developing Managerial Competencies in Educational Technology

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Abstract: Hypothetical Subjects in Curriculum Structure for Developing Managerial Competencies in Educational Technology. This study aims to understand better one of instructional technology domain: managing. This topic is critical to be learned for better understanding and to have a proper basic theory for developing a curriculum structure of field study, especially to build management competencies. Then, we could propose an alternative for the improvement of the curriculum that has a theoretical foundation. The study used a qualitative approach by applying the Critical Discourse Analysis (CDA) method, a critical analysis of the content of discourse objects that are text, gap, and potential aspect may be, and then proposed an alternative for taking action. Results show; first, there are four subdomains for managing instructional technology, with each orientation and characteristics. Second, Seels and Richey's subdomain of managing instructional technology could guide the study program's curriculum structure development. Third, in case of curriculum of Educational Technology Study Program, Faculty of Education, UPI there are gap between theoretical and document. To overcome the gap in developing instructional technology competencies in managing domain, we propose adding at least one relevant course for the primary and holistic foundation of managing aspect in curriculum structure of Educational Technology Program.

Keywords: curriculum, educational technology, critical discourse analysis.

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INTRODUCTION

An indicator of quality and excellence in education is its capacity to produce pupils who possess a variety of qualities, including, initially, students who possess skills applicable to their entire lives. Furthermore, secondly, pupils who possess the capacity to communicate effectively in both Indonesian and foreign tongues. Thirdly, pupils who possess technological proficiencies that are in demand due to their contribution to market share and employment prospects in the global community. Fourth, pupils who are equipped with the requisite knowledge and problem-solving abilities to confront the intricacies of contemporary work. Fifth, pupils who are prepared to assume the roles of conscientious members of society, exhibiting accountability in social, cultural, and political spheres.

The models of pedagogical technology under discussion in this context are a logical consequence of the progressive evolution of an education system that is progressively attaining higher standards of excellence (Casey et al., 2023; Hilton, 2016; 2019). This is evident from

the mechanism for modifying the national curriculum, which is continuously improving and is also capable of producing excellent graduates. By means of the education system in the design of the national curriculum, the discipline of educational technology studies aligns its objectives with those of the curriculum as a whole: to cultivate students' capacity to adapt to the dynamic changes in civilization while enhancing the intellectual capacity of the nation and humanity at large (Clinton, 2018; Clinton et al., 2019; Seaman & Seaman, 2022a; 2022b). As stipulated in the National Education System Law, this entails fostering in students the qualities of being virtuous and self-assured, possessing noble morals, being well-informed, in good health, imaginative, competent, autonomous, democratic, and accountable members of society (Creative Commons, 2020a; Sweney, 2022).

The relevance of investigating educational technology models that exist in society from a philosophical standpoint of the noble goals of education inherent in the curriculum framework and the juridical foundations of education law is emphasised. With these lofty educational principles, this has ramifications for the world of education's preparedness to develop and build synergy between the quality of education in the modern period and the demands of stakeholders, particularly the needs of the world of education today (Ikahihifo et al., 2017; Veletsianos, 2017; Willey & Hilton, 2018; Woodward & Kimmons, 2017). The educational technology models that are currently being developed must be able to compensate for the shortcomings that existed in the construction of Indonesian education in the past, which some may consider to be the cause of the low quality of education in Indonesia, such as: first, the focus of learning, which has so far only been partially focused on the learning process, whether in discourse about the curriculum, learning methods, or the quality of educators, So far, changes have been focused on specific areas that are less well connected. Second, the government has a monopoly in the education industry (Kimmons, 2015; 2016; 2020). In some circumstances, the involvement of educational institutions and the larger society in the formulation of educational policies is still undervalued. Finally, the workload of instructors who are the sole source of learning for their students and are intimately familiar with their particular qualities. Students' well-being is prioritised, whereas educators' well-being receives less attention.

Some of these deficiencies should serve as the foundation for the revitalization of educational technology in order to contribute to the improvement of educational quality, one way being the reconstruction of technological models used in the world of education, both in terms of systems, programmes, policies, implementation, and evaluation of the learning process (Kimmons & Rosenberg, 2021; Kimmons et al., 2022; Kimmons & Veletsianos., 2016; 2018; Rosenberg, 2023; Rosenberg et al., 2022). which has already occurred. Collaboration between education policymakers and education stakeholders through political goodwill will lead to a variety of opportunities in the field of educational technology, particularly through educational technology models that are now required.

Furthermore, the implementation of strong and solid management and rules for regulating educational building can improve educational quality. These two aspects (administration and rules governing educational construction) are obviously dependent on the educational system utilised, but they also allow for the incorporation of educational technology in the midst of learning. The following are the important elements to consider when incorporating educational technology into the learning process: first, the complete format of student management activities is required to carry out an educational purpose

to teach students. Second, student management is a component of educational institution management. Third, student management actions should be viewed as an attempt to regulate students' guidance patterns. Fourth, student management activities should support and develop students' independence. Fifth, student management activities should ideally be viewed as an effort to unite the various backgrounds of students who undoubtedly differ from one another, and sixth, student management activities that provide services to them must be functional for the lives of the students themselves, both within the scope of the school and in relation to preparing students to achieve their future dreams.

Educational Technology is a branch of educational science that continues to grow and develop to become an established field of study. Educational technology is a branch of study discipline in the educational science family, which is relatively young compared to other branches of study discipline. The growth and development of educational technology as a discipline of study can be seen from the development of the definitions used, the scope of the study area, and the practice of educational technology itself, which is still undergoing development and improvement. This dynamic is driven by the growing demands for practice and science and technology, which are closely related to the study of educational technology. Educational technology is a scientific discipline formed by utilizing the thoughts and findings of other relevant disciplines (elective).

Throughout history, new technological innovations have made possible new ways to support learning practices. Along with technology development, there has been a significant development in understanding what learning is and its core mechanisms (Ainsworth, 1999; Reisser, 2001). Different conceptions of learning lead to different technological needs. In this strategy, there is a view that sees learning as a process of transmitting information based on direct feedback with a delivery system mechanism that has been determined in such a way beforehand. Another view sees learning as a student-centered process that is carried out collaboratively. Both of these views have a theoretical basis and benefit from certain types of technology that can be used, according to the learning paradigm.

Educational technology has developed rapidly (Bodily et al., 2019; Huang et al., 2019; Mishra, Koehler, & Kereluik, 2009; Weller, 2020). Reisser (2001) and Weller (2020) identify the mid-1990s as a turning point indicating the rapid growth of educational technology as a research field. Changes in the 1990s were associated with expanding educational technology into new technologies, such as the Internet and multimedia. That expansion continued until the 2000s, with smartphones and social networks becoming part of educational practice (Huang et al., 2019). Weller (2020) outlines the history of educational technology from 1994 by showing one peak of educational technology for each year. Coevolution of learning practices and technologies, such as computer-mediated communication, constructivism, LMS (Learning Management System), WEB 2.0, and MOOC. The annual Horizon report, published in 2005, points to some overlapping concepts within the area and solid expectations for new and highly innovative technologies to be integrated in the coming years (Chen et al., 2020a, Freeman, Becker, Cummins, Davis, & Geisinger, 2017). At the same time, the Horizon Report suggests that integrated technologies are typically standard, everyday technologies, such as tablets and cloud-based services, rather than cutting-edge technologies, such as wearable computers or augmented reality.

As technology develops, Koschmann (1996) introduces a research "paradigm," which describes how research on educational technology has developed and is based on various conceptions of learning, research methodologies, and research questions. In addition, educational

technology has been divided into several research communities, each relying on different research practices and holding different views on learning and teaching.

Koschmann (1996) proposed that there are at least four types of paradigms in technology research in education. First, the computer-assisted instruction (CAI) paradigm is based on behavioristic and experimentalist traditions. Research under this paradigm has typically focused on learning effectiveness issues and measurable differences in proficiency displayed. The second paradigm, intelligent tutoring systems (ITS), emerged in the 1970s and was built on cognitive processes and artificial intelligence (AI) research. Innovative technology is intended to act as skilled teachers, providing students with private tutors and richer learning experiences (Merrill, 2002; Valtonen, 2011). The third paradigm, the Logo-as-Latin Paradigm (Jonassen, 1997; Koschmann, 1996, 2001), began in the early 1980s. This paradigm aims to build a learning environment for the subjective construction of knowledge, where learners can explore, create, and external program artifacts and, thus, can develop their conceptual understanding and learn complex problem-solving skills (Park, 2009; Resnick & Robinson, 2017; Grover & Pea, 2018). The fourth paradigm, computer-supported collaborative learning (CSCL), emerged in the 1990s and relied on "socially oriented learning theories," such as social constructivism, cultural-historical activity theory (Conversational Hypertext Access Technology: CHAT), and contextual learning (Koschmann, 1996, 2001; Willermark, 2018). The CSCL paradigm has encouraged a change from the 'mind' to the sociocultural context in which learning occurs. CSCL focuses on how computer-supported collaborative learning can facilitate the sharing and building knowledge and expertise among collaborative groups (Ertmer, 1999, 2005; Ertmer et al., 2012).

METHOD

The participants in this research are in line with the research approach and method that used, administration staff and the members of research team. The role of administration staff helped in collecting various relevant data resources like books and documents that will analyzed. Then, the role the member of research teams are analyzed the resources, data, deep discussing, and interpreted data.

The research employed a qualitative approach by applying the Critical Discourse Analysis (CDA) method. CDA is a systematic method for critical analysis of the t content of discourse objects, which include text, gaps, and possible aspects that may be, and then it provided an option for taking action for solution, to make things better. The text in any various forms as data resources was taken from some relevant books and publications addressing educational technology including curriculum document of Educational Technology Study Program of FIP UPI. These resources were used as part of the data that was studied for this particular study. The research centered on and used Gee's (2005) activities and tools of the content of discourse objects, which are text, gap, and potential aspect may be and then proposed an alternative for taking action.

The tools of data collecting were used non test instrument they are document study guidance and observation, deep analysis to the text and context. Document study guidance was developed by researcher, and deep analysis were doing by personal and team. Document study guidance used for shorting some references and any documents that really relevant. Then, deep analysis worked to find deep understanding, meaning, and the gap that may there are, also any idea of alternative that may be judged as a proper solution.

Data analysis used three steps Silberman's qualitative data analysis technique: shorting,

displaying, and interpretating. Shorting step, we short any resources/data which are relevance to the research's goal. Displaying step, presentation some data in any forms so data could read easily and visually attractive. Interpretating step, in this segment we tried to understood and found the meaning from the data, and then create alternative solution to take action.

■ RESULT AND DISCUSSION

Educational Technology Area

The field of management is one of the regional fields in the field of educational technology studies. The early development of the educational technology study area consisted of five areas: design, development, utilization, management, and assessment (Seels & Richey, 1994). These five study areas are related to one another and constitute a complete study area in educational technology. Management is one area in the field of educational technology. The management area has four sub-areas of management (management): projects, sources, delivery, and information systems (Seels & Richey, 1994). In the latest version, the areas of educational technology are classified into three areas/activities: creating, using, and managing (Januszewski & Molenda, 2008). The change from five to three remains the substance of activities in the field of educational technology, both in terms of theory (study) and practice.

A learning engineer (educational technologist) must comprehensively understand all existing areas of study and practice. In Figure 1, an image is presented explaining the existence of the educational technology study area in a five-region version. Figure 1 not only shows the area of the field but also at least explains three things about educational technology itself, namely: the notion of educational technology, the area of educational technology, and the nature of the field of educational that is theoretical and practical.

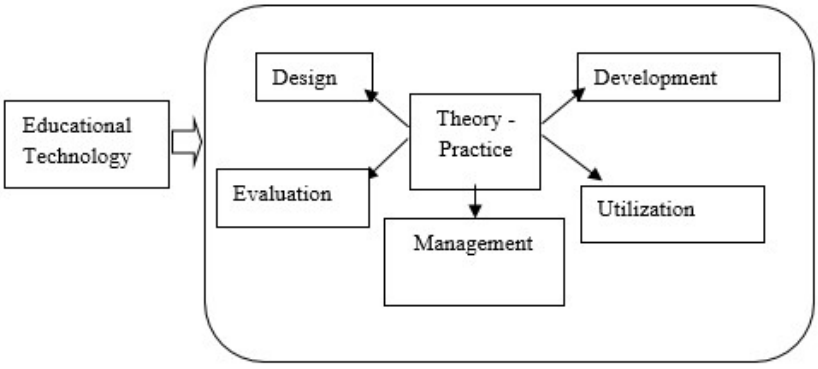

Figure 1. Five regions version of educational technology districts (adapted from seels and richey, 1994)

Educational Technology Management Sub-Region

Management is seen as an essential part of its existence by not intending to weaken the existence and urgency of other educational technology areas. We can at least observe this in the division of educational technology areas in the latest version of Januszewski and Molenda (2008), which divides the area of educational technology into three major areas: creating, using, and managing. Management or management (managing) remains a separate sub-area not affiliated with other regional fields.

Figure 2 presents a visualization of the new definition of educational technology after the change. It is illustrated that there has been a change in the number of educational technology areas from the previous version of the definition, which consisted of five areas to three areas.

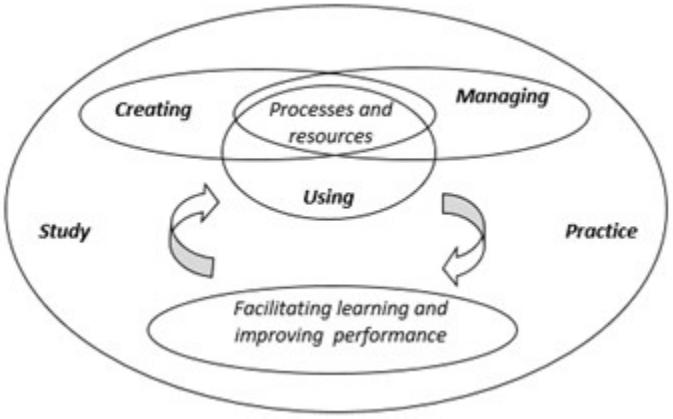

Figure 2. Definition of educational technology

The inclusion of the management function in the study area and practice of educational technology is not accidental and arises because of a momentary trend; the management function in educational technology has existed since the formulation of formal educational technology in 1963 until the last formulation of educational technology in 2004. Of course, the function and focus of management that continues to grow changed since it first appeared until the last, in line with the development of educational technology and other supporting sciences.

The following presents the existence and development of management functions in the field of educational technology from the 1963 definition to the 2004 definition.

Table 1. Development of the scope of management functions in educational technology

No	Definition	Function of Management	
1.	1963	Process and Product Control	
2.	1972	Management function in 1963 added : - Personnel supervision - Operational of the organization	
3.	1994	- Planning - Coordinating - Organizing - Supervising In the context of an Instructional Design Project	
4.	2004	Managing	Leading
		- Planning - Monitoring - Controlling	- Setting direction - Aligning - Motivating
		The accuracy of process technology and sources	

Apart from that, at a practical level, educational technology activities, especially in the design and development process, involve many parties and other non-person components in complex working relationships. Thus, to complete tasks in an "excellent" manner in all areas of educational technology activity, each educational technologist must understand management in

each region's various phases and levels of activity.

The management sub-area itself has several separate sub-regions, which include: project management, delivery system management, resource management, and information management (Seels & Richey, 1994). The following table presents the educational technology management areas and their sub-regions to help make understanding easier.

Table 2. Sub area of educational technology management study (Taken from Seels & Richey, 1994)

Management Area Education Technology
1. Project Management
2. Source Management
3. Delivery System Management
4. Information Management

Next, a brief description of the four educational technology management sub-regions refers to Seels and Richey (1994). This description will explain what and what each sub-region is for. However, this description is general; it can provide an overview to understand the fundamental conception of the four sub-regions. A more technical (technically) detailed description will be obtained in specific discussions related to each sub-region, at least in courses that intersect with the educational technology management sub-region.

Project Management

A project is a unit of activity (work) that must be completed within a certain period. Project management is an activity that includes planning, monitoring, and controlling design and development projects. From this definition, the object of project management is design and development. This is in line with the opinion of Gagne (1992) that the core of all educational technology activity areas lies in the design area.

Project managers are responsible for planning, scheduling, and controlling the learning design function or other types of projects. For this, the tasks that project managers must carry out are negotiating with parties who own the project and other parties related to the project that will be or is being carried out, establishing an information monitoring system, and assessing the progress of the project work. The project manager will be heavily involved with solving problems that threaten the course of the project and provide suggestions for solutions to anticipate and solve them.

Project managers must consider several things because project management differs from ordinary management. In ordinary management, which is based on traditional management, which is command and staff (line and staff management), the condition of management elements, especially people, tasks, and lines of command, is relatively fixed. In project management, this is different. As explained by Rothwell and Kazanas in Seels and Richey (1994), project management has the following characteristics:

1. Team members for the short term, and maybe filled by new people for each project being worked on.
2. Project managers usually do not have long-term authority over people because of the temporary nature of their assignments.
3. The project manager has more flexibility than the line staff model organization.

Source Management

Resource management is essential because it controls support systems (learning) access. These sources include personnel, finance, raw materials, facilities, and learning resources. Learning resources include all sources developed using existing technology, both those developed

using print, computer-based, and integrated technology (multimedia). Resource management is a process that includes planning, monitoring, and controlling resource support systems and services. Management of support systems refers to handling management elements in general known as the six M's (man, money, machine, method, material, and market), while resource management in terms of learning resources is handling development results (products) so that they can be stored and well presented and easily accessible, both by managers and potential users. The two main objectives of resource management are cost-effectiveness (efficiency) and learning effectiveness. In resource management, some parameters must be considered, including; Products (hardware and software, as well as technical support for users); Guidelines for product designers and users (instructors, trainers, students).

Delivery System Management

The delivery system is related to how learning resources can be distributed to users, and these learning resources can be used properly and correctly. This means there is a precise mechanism for using the distributed product. This requires many guidelines that need to be prepared by the program designer so that the program can be used by teachers, trainers, instructors, operators, and the students themselves.

Management of the delivery system includes planning, monitoring, and controlling "how the distribution of learning materials is organized... This is a combination of the medium and the method of use used in presenting learning information to students" (Ellington and Harris; Seels Richey, 1994). Decisions about managing these delivery systems often depend on the policies of the sourcing management system used.

Information Management

Seels and Richey (1994) explain that information management includes planning, monitoring, and controlling the method of storing, sending/transferring, or processing information to provide resources for learning activities. The above explanation of the meaning and scope of information management overlap with previous explanations, especially concerning the concept or activities of storing, sending/transferring, and processing information.

To distinguish the existence of concepts and activities that look the same in the information management sub-area and those in other sub-areas, especially the development sub-area and other management sub-areas, we can explore other explanations from the two authors. Among the crucial guidelines that can be used as a guide include; processing is changing some aspects of information [through computer programs]....to make it more suitable for a particular purpose (Lindenmayer; ditto), management of vital information to provide user access and familiarity, management of information storage systems for learning purposes will still be an essential component in learning technology, the synthesis of innovation diffusion, performance technology and quality management can be a powerful tool for organizational management. The marriage between information systems and management will develop and influence learning technology because management decision-making will become increasingly dependent on computerized information.

From the description above, some of the concepts look the same, namely the information management sub-area and the delivery system management sub-area; the information management sub-area has a slightly different meaning: towards storage, transfer/dissemination, and processing activities. Information that refers to the use of computer technology. So that it is easier to store information on learning messages, disseminate (utilize), and trace their existence.

Referring to the writings of Donaldson et al. in Januszewski and Molenda (2008), in line with the definition of educational technology in

2004, there are also four management areas, but there are slight differences from those proposed previously, which include; project management, resource management, personnel management, and program management.

The difference from the first version is the existence of personnel and program management. Personnel management emphasizes the importance of the people involved in completing the project, so it must be studied more intensively. Meanwhile, program management, which works on a broader and long-term scale, is a multi-project. The program is "mission-driven," while the project is "specification driven.

A Hypothetical Curriculum Structure to Build Competency in Educational Technology: Management Domain

Considering the description of the educational technology management sub-regions above, the educational technology curriculum structure must contain several courses to build managerial capabilities in educational technology to form holistic study program outcomes. These courses at least cover all sub-areas of educational technology management, as stated by Richey and Seels (1994), including Project Management, Resource Management, Delivery System Management, and Information Management or as described by Donaldson et al. (2008) consisting of project management, resource management, personnel management, and program management.

Furthermore, to strengthen the competence of managerial areas of graduates, the authors have the view that the four management sub-regions from Seels and Richey or the regional concept of Donaldson et al., in the curriculum structure of the educational technology study program there needs to be a conceptual bridge to achieve these four sub-competencies, at least one eye lectures that function to provide a strong foundation regarding management logic that is integrated with the logic of educational technology. This is very important because if the four sub-regions of educational technology management are presented without being based on a basic understanding of management, then the ability to manage graduates will be more practical in the sub-areas, less fundamental, and require an adaptation process (re-learning) when dealing with other fields. Other management has yet to be covered by the curriculum. If that happens, then in other words, the ability of graduates of educational technology study programs is not yet "complete" to meet the criteria for mastery of field areas. The proposed courses are courses that are oriented to provide a foundation for understanding and decision-making skills in solving fundamental management problems in the context of the field of educational technology.

In line with this, the authors then propose a hypothetical curriculum structure model that is specifically intended for the benefit of achieving learning outcomes in the management field of educational technology, namely as follows;

Table 3. Hypothetical course structure to build competence in educational technology management area

Educational Technology Management Course
1. Educational Technology Management Foundation
2. Management/ Project Management
3. Resource Management/Management
4. Management/System Management Delivery

The naming of courses can be adapted to the situation, conditions, and needs, as well as policies related to the terminology of existing courses, without reducing or losing their essence. When will the Fundamentals of Educational Technology Management course be offered? Because it is a foundation course, it should be given before taking other sub-fields of management courses as a prerequisite.

The curriculum structure in the management areas above is an initial idea. It is possible to have other additions or specific designs in introductory management courses as needed, especially if there are several technical and policy constraints in adding more than one new course is not possible.

Signs of Development of Educational Technology Management Foundation Courses

In line with the importance of developing graduates' abilities in the managerial field of educational technology, which is more fundamental and comprehensive, it is necessary to design a course that can accommodate aspects of the fundamental abilities or competencies contained in each sub-unit of the management area. In practice, for lectures, the scope, breadth, and depth of discussion can be designed and modified, perhaps not strictly following the sequence of discussions on sub-management areas described above. Still, they can be adapted to existing situations and conditions. Factors that influence the pattern and type of course modifications in question include the vision, mission, and values of excellence held by the study program organizers, the amount of time or semester credit units (SKS) available, and other courses because some courses are not explicitly stated as part of educational technology management but whose technical discussion closely intersects with the educational technology management sub-area.

In line with that, the following are several general (generic) essential criteria for determining the design, scope, and sequence of educational technology management foundation course material; accommodates the basic ideas of educational technology, which are related to efforts to solve problems/facilitate learning and improve performance according to needs, in line with the basic idea of management, namely concerning science and art in terms of making decisions about who does what with the use of appropriate resources and when to be done logically and systematically, contains the basic ideas contained in the four sub-areas of educational technology management (project management, resource management, delivery management, and information management). If we analyze the description of the management sub-areas from Seels and Richey (1994) and Donaldson et al. (2008) previously, apart from showing the existence of a unique study object in each management sub-area, it turns out that there is an element of generic management capability that works in each aspect of that specific field.

Review of the Curriculum Structure of the Management Sub Area in the UPI FIP Education Study Program

In the curriculum structure of the FIP UPI Educational Technology Study Program, related to the development of the management sub-area, a number of courses have been successfully identified, as shown in Table 4.

Table 4. Courses educational technology study program, educational science faculty, UPI (UPI Curriculum 2013)

No.	Courses	Credits	Semester
1	Management Information System	3	2
2	Learning Resource Center Management	3	5
3	Human Resource Development	2	6
4	Training System Management	2	7

Table 5. Course description of management area in curriculum structure of educational technology study program, educational science faculty, UPI (Study Program Courses Lesson Plans, 2017)

No.	Courses	Descriptions
1	Management Information System	.... oriented to provide insight, understanding, positive attitude, and skills related to management information systems ..... covering management information structures, communication technology for information systems, data storage and retrieval, data processing, decision-making systems, the value of information, development of information systems, security and control of information systems.
2	Learning Resource Center Management	.... learn the concepts, principles, and procedures regarding the management of learning resource centers, including.... planning, developing, managing, and evaluating learning resource centers in formal and non-formal education.
3	Human Resource Development	....learn the application of management processes to the operative function of HR management, the strategic role of HR, HR competencies, and HR tasks and criteria in learning technology.
4.	Training System Management	.... discusses the concepts and characteristics of management and development functions in education and training, the design and development of education and training programs, the development of media and methods of education and training, and the application of education and training programs.

Furthermore, Table 6 presents a description of each of these courses. Observing the description of the courses included in the management area of the Educational Technology Study Program above, which depicts the orientation and scope of the material for each course, if it is matched with the curriculum structure in the field of hypothetical management area which was developed from the concept of the management area of Seels and Richey (1994), then it will look like in table 6 below.

Table 6. Analysis of completeness of discussion of management area in the curriculum structure of educational technology study program, educational science faculty, UPI program viewed from hypothetical curriculum structure

Hypothetical Educational Technology Management Course	Educational Technology Management Course on Going Program	Notes
1. Educational Technology Management Foundation	Not Available	Not Available
2. Management/ Project Management	Short course Management system	Partly discussed, implicitly
3. Resource Management/Management	- Learning Resource Center Management	Partly discussed

	- Resource Management Man	
	- Learning Resource Center Management	
4. Management/System Management Delivery	- Management Information System	Mostly discussed
5. Management/ Management Information	Management Information System	Mostly discussed.

Observing the table of analysis results above, a comparison between the characteristics of the curriculum structure of the Educational Technology Study Program and the hypothetical curriculum structure developed, which is based on the concept of the educational technology area of Seels and Richey (1994), seems to require efforts to optimize further the existence and role of each course of management sub-area in the curriculum structure of the UPI FIP Educational Technology Study Program.

■ CONCLUSION

Managerial ability in the theory and practice of Educational Technology is a vital part. Therefore, to form and develop capabilities in the management or management of educational technology, it is best to develop a study program curriculum structure that is in line with theory and accommodating to practical needs, which can be one of the guidelines for determining the intended curriculum structure. Educational technology can be managed from the top down through the processes of design, organisation, coordination, and supervision. The management domain starts with the actions of managing media sources, media programmes, and media usage. The media programmes used in schools integrate print and non-print materials within the purview of the school. By merging these two forms of content, the quality of learning technology resources in the curriculum improves. The management domain is one element in the realm of educational technology that cannot be isolated from technologists' prominent role in the field of learning. Each individual who serves as a learning technologist is expected to deliver and serve components of learning technology management for a variety of reasons. Each learning technologist can contribute to attempts to manage learning development projects or school media resources. Management objectives in the realm of learning technology vary, but the management abilities that underpin these variances remain consistent.

Apart from that, to provide a solid basis for building management area capabilities in the curriculum structure, it is necessary to have an Educational Technology Management Foundation course whose orientation, material (scope and sequence), and learning methods are aligned and integrated with the core ideas of educational technology and generic management will become a strong foundation for forming managerial competence (decision-making and problem-solving) in a rational, logical, and systematic manner in the theory and practice of each sub-region of educational technology management.

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