The COVID-19 pandemic since the beginning of 2020 has affected education systems and management throughout Indonesia, such as teaching and learning activities in an online system, increasing stress and boredom, and causing anxiety and depression for students. The government has made various efforts to address the existing obstacles. However, these efforts have not been able to overcome prolonged negative impacts, such as the threat of dropping out of school, students having to work to help family finances due to the COVID-19 pandemic crisis, the occurrence of learning achievement gaps due to differences in access and quality, the occurrence of covert exploitation of children, and the tendency to students become addicted to online games. This study uses a qualitative approach with library studies using legitimacy theory to answer these existing problems. Two conclusions were drawn; first, the education system before the COVID-19 pandemic was still based on formal, non-formal, and informal education, which was held in an open system through face-to-face and or long-distance. Second, the anticipation of systematic changes in education during and after the COVID-19 pandemic to create advanced, trustworthy, and dignified graduates is carried out by implementing legitimacy theory by integrating technology, information, and communication with business process reengineering (BPR).

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1. INTRODUCTION

The COVID-19 pandemic situation has affected education systems and management throughout Indonesia. One of the significant changes is that teaching and learning activities were conducted face-to-face through a distance learning system (PJJ) or online learning. Teachers, parents, and children have faced many obstacles while implementing the PJJ (Kemdikbud, 2020). The obstacles teachers face including the tendency not to focus on completing the curriculum and communication difficulties between teachers and parents. Obstacles faced by parents include not all parents being able to assist their children in learning and the difficulties of parents in understanding lessons and motivating children. Meanwhile, the obstacles faced by students include difficulty concentrating, difficulty
assigning questions to the teacher, increasing stress and boredom, and causing anxiety and depression in children (Kemdikbud, 2020).

Indeed, many efforts have been made by the government to deal with these obstacles, including the provision of free quotas, teacher sharing programs, online tutoring series, and relaxation of school operational assistance (BOS) (Kemdikbud, 2020). However, the government’s efforts have not been able to overcome prolonged negative impacts, such as the threat of dropping out of school because students have to work to help family finances due to the COVID-19 pandemic crisis, the occurrence of learning achievement gaps due to differences in access and quality during PJJ, covert exploitation of children, and negative issues related to the tendency of students to become addicted to online games (Kemdikbud, 2020).

The government must also anticipate the prolonged negative impact of the COVID-19 pandemic on education, given a large number of high school (SMA) and vocational high school (SMK) students (Central Bureau of Statistics, 2022). So far, there has been a moral degradation of a handful of students who tarnish the government’s educational vision, such as promiscuity and abuse of PJJ and free quotas for games and social media. Thus, in realizing the government’s legitimacy, it is necessary to anticipate changes in educational systematics during and after the COVID-19 Pandemic Period by answering 2 (two) existing problem formulations. First, how was the education system changed before the COVID-19 pandemic until recently. Second, how to anticipate changes in educational systematics during and after the COVID-19 pandemic to create a government that has legitimacy in high school and vocational school education in Indonesia.

2. METHODS

In answering the two problems, this study uses a qualitative method considering that this research is typically more focused on making sense in a purer sense (Weathington et al., 2012). The qualitative method in this study is expected to bring a new perspective (Weathington et al., 2012) to the legitimacy of systematic change in education after the pandemic era. The data used is secondary data, in the form of library research, then conclusions are drawn and are expected to produce constructive suggestions (Dresch et al., 2015).

The qualitative method in this study is not oriented toward validity and reliability as standards to legitimize this scientific work. However, it raises other alternative criteria, including descriptive adequacy, completeness, reasonableness, confidence, authenticity, consistency, coherence, and cogency (Taylor, 2014). These criteria are the scope of interpretive research, which according to Egon Guba and Yvonna Lincoln, consists of standards of trust and authenticity that have been designed following the epistemology of social constructivism (Taylor, 2014).
3. ANALYSIS AND DISCUSSION

A. Overview of Education Systematics

Systematics Education comes from the word systematics and education. Based on the online version of the Big Indonesian Language Dictionary (KBBI), systematics means "knowledge of classification (classification)." In contrast, based on Article 1 number 1 of Law Number 20 of 2003 concerning the National Education System (UU Sisdiknas), it is defined that education is "an effort to conscious and planned to create a learning atmosphere and learning process so that students actively develop their potential to have religious, spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation, and state.

Understanding these words shows that educational systematics is a classification of the embodiment of the learning atmosphere and learning process needed by a person, society, nation, and state. The education classification must be in line with Article 4 paragraph (2) of the National Education System Law, which states that "education is organized as a systemic unit with an open and multi-meaning system." Furthermore, the explanation of Article 4 paragraph (2) of the National Education System Law explains that what is meant by "education with an open system" is education that is held with the flexibility of choice and time for completion of cross-unit programs and educational pathways (multi-entry-multi-exit system). Alternatively, in other words, students can learn while working or take educational programs on different types and paths of education in an integrated and sustainable manner through face-to-face or distance learning. Meanwhile, what is meant by "multi-meaning education" is an educational process that is oriented towards civilizing, empowering, forming character and personality, as well as various life skills.

B. Education Systematics in Indonesia Before the COVID-19 Pandemic

The legal standing of the systematics of education in Indonesia to date, namely before and during the COVID-19 pandemic, can be understood from the classification which refers to Article 13 of the National Education System Law, which states that the education pathway in Indonesia consists of formal, non-formal and informal education which can be mutually exclusive. Complement and enrich, held with an open system face-to-face and or remotely. Furthermore, Article 14 of the National Education System Law classifies formal education as consisting of basic, secondary, and higher education. Primary education in Indonesia is in the form of elementary school (SD) and madrasah ibtidaiyah (MI) or other equivalent forms, as well as junior high school (SMP) and madrasah tsanawiyah (MTs) or other equivalent forms. Then, secondary education in Indonesia takes the form of high school (SMA), Madrasah Aliyah (MA), vocational high school (SMK), and Madrasah Aliyah vocational (MAK). In comparison, higher education is a level of education after secondary education, including diploma, bachelor's, master's, specialist, and doctoral programs organized by Directorate General of Higher Education.

Formal education in Indonesia must refer to Article 26 of the National Education System Law. Non-formal education is organized for community members who need educational services that function as substitutes, additions, and or
complements to formal education to support lifelong education. Where non-formal education units consisting of course institutions, training institutions, study groups, community learning activity centers, and taklim assemblies, as well as similar educational units, can be valued as equivalent to the results of formal education programs after going through an equivalency assessment process by an institution appointed by the Government or local Government regarding national education standards. Meanwhile, informal education in Indonesia must refer to Article 27 of the National Education System Law, namely in the form of educational activities carried out by families and the environment in the form of independent learning activities, where the results of the education are recognized as the same as formal and non-formal education after students pass the exam following national education standards.

The entire education systematization that applies in the current National Education System Law is the current vision and mission of national education. The vision of national education is to realize a system that is used as an authoritative and strong social institution to empower all Indonesian citizens. Based on this vision, national education missions were produced, including (1) providing facilities and assisting the development of the nation's children's potential from an early age to the end of life as a whole for the realization of a learning society, (2) strive for equal distribution and expansion of opportunities to obtain quality education for all the people of the country, (3) advancing the accountability and professionalism of every educational institution as a center for cultivating skills, attitudes, experiences, values, and knowledge based on national and international standards, (4) Empowering community participation in providing education based on the principle of autonomy in the context of the Unitary State of the Republic of Indonesia (NKRI), and (5) Improving the quality of the education process and the readiness of inputs to maximize the development of moral character.

The current vision and mission of national education show that educational systematics seeks to produce quality human beings to be active and able to face the changing times. However, it must be realized that there is currently a paradigm shift in education, where formal, non-formal, and informal education is dominated by face-to-face meetings. There are many big challenges that the government must address as a result of the education systematization, which is still based on the 2003 National Education System Law. A few examples as the decline in teacher performance during the pandemic due to various obstacles, such as difficulties in delivering learning materials directly, teaching orientation is only on achieving material targets and pursuing high score targets on tests, thus causing the quality of the learning process to be neglected and causing the quality of the learning process to be low and less meaningful. for students (Ayunda, 2021; Alifia and Pramana, 2021).

C. Ideal Education Systematics During and After the COVID-19 Pandemic

The pandemic that has occurred so far has demanded a systematic change in education, which is expected to have a more practical design, adjust the current state of education, evaluate educational performance, improve school facilities and infrastructure, and have Pancasila values in producing students and learners.
This must be anticipated by the government, which is 2021/2022 will have a vast number of high school and vocational students. Of course, the anticipation of systematic changes in education in North Sumatra must be per the vision of the local government and central governments. Systematic changes in education in Indonesia must be made maximally, namely continuing to provide more knowledge to students, creating a learning system that makes students more creative, innovative, and at the same time active in teaching and learning activities while still developing the character of their students who are trustworthy and dignified. The anticipation of systematic changes in education is adequate to discuss by applying legitimacy theory considering that legitimacy can adjust its application based on historical, cultural, and economic situations in society (Kuznetsov & Kuznetsova, 2012).

Legitimacy theory states that organizational disclosures react to environmental factors (economic, social, political), and these disclosures legitimate actions. It is based on the idea that business operates in society through a social contract in which an organization agrees to perform socially desirable actions in return for agreeing to its goals, other rewards, and the survival of the organization (Guthrie & Parker, 1989). Strategically, the sustainability of legitimacy theory is based on the legacy of management that connects traditional norms and values with modern ethics, considering that the organization aims to gain recognition from its main stakeholders (Burlea & Popa, 2013). The legitimacy life cycle is described by Burlea and Popa (2013) as follows:.

**Figure 1**

*The legitimacy theory (Burlea & Popa, 2013)*

![Diagram of the legitimacy theory](image)

Figure. 1 above shows that three types of legitimacy, namely cognitive legitimacy, moral legitimacy, and pragmatic legitimacy, are correlated with the internal environment (internal environment) and external organization (external environment). First, the organization needs to achieve cognitive legitimacy, which is meant to extend its moral legitimacy by justifying its social existence. Therefore, to ensure its survival (in the context of internal and external legitimacy), the organization engages in constructing and developing its pragmatic legitimacy. Internal and external knowledge are combined to enhance the legitimacy life cycle, considering past experiences and future strategies. The relationship between types of
legitimacy with the internal and external environment of the organization proves the importance of moral legitimacy in sustaining pragmatic legitimacy.

The reach of legitimacy theory on systematic changes in education in realizing advanced, trustworthy, and dignified education is to consider factors that affect cognitive legitimacy, moral legitimacy, and pragmatic legitimacy. Cognitive legitimacy can be in the form of Technology, Information, and Communication (ICT), business process reengineering (BPR), and curriculum design that is more effective and efficient. ICT can work to achieve the desired effect as, so far, more and more human tasks have been completed or have been delegated to or assigned to technology, including in terms of documents, signatures, files, and many procedures (Contini & Mohr, 2014) and 2) BPR is a management approach or strategy that focuses on business process analysis, strategy rethinking, integrating the use of information technology (IT), and business process redesign to achieve increased efficiency, reduce waste, and improve performance (Susanto, Leu, and Chen, 2019).

The results of this cognitive legitimacy are expected to produce moral legitimacy, namely, advanced, trustworthy, and dignified graduate students in Indonesia. Furthermore, the results of moral legitimacy will affect pragmatic legitimacy, namely graduate students who are creative, innovative, and able to take advantage of opportunities and face any obstacles in the future.

D. Solution

The preliminary description and strategic issues above produce solutions that have cognitive legitimacy, moral legitimacy, and pragmatic legitimacy in anticipating changes in educational systematics in the future while still realizing an advanced, trustworthy, and dignified Provincial Government of North Sumatra. The solutions offered include:

a. The end of the COVID-19 pandemic is still full of uncertainty, but the face-to-face learning and teaching process must continue. It is proposed that there are two schedules in one week: study from home (SFH) and study from school (SFS). SFS runs while maintaining strict health protocols (prokes).

b. Even if there is an SFH schedule for students and or teachers, online attendance per subject in SFH must always run like the usual SFS schedule. The Education Office is expected to be able to build an attendance system that detects a certain radius for its users. Then, for students or teachers whose SFH absences reach intolerable limits, the attendance system can also play a role in assessing students or teachers.

c. In terms of minimizing the misuse of SFH, monitoring the use of free quotas that are right on target, and avoiding the misuse of social media, so that the Education Office produces graduates who are advanced, trustworthy, and dignified, the Education Office is proposed to have a Section or Section that oversees and monitors the social media use of teachers and students. Those can be done by making it mandatory for students and teachers to notify and or report
their social media accounts, make statements to use their social media accounts wisely, and are willing to be subject to sanctions if they violate the ethics, laws, and morals apply in society.

d. It is hoped that in the current era of autonomy, the role of the provincial government education office is to succeed in student’s graduate goals and assess teachers not only based on academic ability alone but also to have graduated students and teachers who are trustworthy and dignified by maximizing information technology for screening facilities. For example, based on the use of information technology, it can be known what certain news about students or a teacher, and how their manners when using social media, and so on (Alam & Kamela, 2022)

e. It is maximizing the role of school committees in improving the quality of education that is accountable and transparent through the BPR process, considering the existence of reports and accountability per semester carried out by school committees. Indeed, the biggest obstacle in building BPR lies in the budget, but given the urgency of BPR, the Education ministry in Indonesia can do it gradually for certain schools based on specific parameters.

4. CONCLUSION

This study yields two conclusions. First, the education system before the COVID-19 pandemic was still based on the National Education System Law, namely, formal, non-formal, and informal education held in an open system face-to-face and or remotely. Second, the anticipation of systematic educational changes during and after the COVID-19 pandemic to create advanced, trustworthy, and dignified graduates is carried out by implementing legitimacy theory, namely by mapping the factors that affect cognitive, moral, and pragmatic legitimacy. It is suggested that ICT with BPR should be integrated to obtain a redesign of the education business process that achieves increased efficiency, reduced waste, and improved educational performance.

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