

# Model of Excellent Educational Systems: Qualitative Data Analysis

## ABSTRACT

The educational system must be transformed to fulfill its promise of providing quality education and excellent service for all. In measuring its quality, it is vital to consider valid indicators to determine whether it has achieved its goals and objectives. Without indicators, assessing its performance and planning for improvement will be difficult. Thus, this paper explored the literature on best educational systems to list indicators and create an excellent educational system model. Based on the qualitative data analysis, four indicators emerged for the excellent educational system: context indicators, input indicators, process indicators, and output indicators. Context indicators pertain to the interrelated conditions, environment, or setting that affect educational operations. These include student characteristics, socioeconomic conditions, cultural aspects, status of the teaching profession, and local community issues. Meanwhile, input indicators are resources like material, amount, energy, and power to carry out operations, activities, or events. These inputs or resources involve financial, material, and human resources that influence the success of an educational system.

On the other hand, process indicators include how specific educational processes are conducted in practice, such as the application of standards, teaching quality, time on task, school climate, and educational leadership. Lastly, output indicators are things that are produced out of an educational action or effort. These reveal how the education system performs regarding subject knowledge, competencies, repetition, progression and completion rates, and employer satisfaction.

Further, these indicators are described as amiable context, adequate input, appropriate process, and acceptable output to achieve the best educational system. The absence of one indicator may affect other indicators, as these indicators need one another to complete an educational system. Therefore, educational leaders are encouraged to improve these indicators to achieve an excellent educational system. Teachers and stakeholders can also support the administrators in realizing these indicators.

*Keywords: Education, excellent, indicators, system*

## 1. INTRODUCTION

Education is a fundamental human right and the foundation for peace and sustainable development. It has long played a foundational role in the transformation of human societies. However, there is no such thing as "perfect" education. The pressing need to reimagine how to improve education means that it is not yet fulfilling its promise to help people shape peaceful, just, and sustainable futures. Hence, education itself must be transformed (UNESCO, 2021).

In transforming education, it is vital to examine its system. The way it operates significantly contributes to its excellence in delivering quality education. In measuring quality, the Organization for Economic Cooperation and Development (OECD) offers a rich, comparable, and up-to-date array of indicators that reflect a consensus among professionals on measuring the current state of education internationally. The indicators provide information on the human and financial resources invested in education, how education and learning systems operate and evolve, and the returns to investments in education (OECD, 2021).

"indicators" refer to things, trends, or facts that indicate the state or level of something (Merriam-Webster). The concept of indicators is not new since it has existed even before. In education, these statistics describe

critical aspects of schooling that permit the evaluation and monitoring of schools, teachers, programs, and students. However, validating indicators' appropriateness in measuring an educational system's quality is critical. Hence, it is essential to formulate a feasible set of indicators through specific criteria or standards to ensure validity (Creemers & Kyriakides, 2010).

The value of determining appropriate indicators in measuring quality is greatly appreciated in education. The world leaders gathered last September 2015 to set ambitious goals for the future of the global community. The fourth goal of the Sustainable Development Goals (SDGs) is to ensure inclusive and equitable education and promote lifelong learning opportunities for all. Each target of the SDG 4 framework has at least one global indicator and several related thematic indicators designed to complement the analysis and the measurement of the target (OECD, 2021).

Additionally, the United Nations Educational, Scientific and Cultural Organization (UNESCO) oversees the education SDG agenda in the context of the United Nations SDG framework. The UNESCO Institute of Statistics (UIS) also coordinates global efforts to develop the indicator framework to monitor progress towards SDG 4 targets. In addition to collecting data, the UIS works with partners to develop new indicators, statistical approaches, and monitoring tools to better assess progress across the education-related SDG targets (OECD, 2021).

The instances mentioned above in the quest for appropriate indicators convey the relevance of indicators in measuring an excellent educational system. The success of an educational system depends upon the quality and performance of these indicators. However, it is necessary to identify and understand indicators better to realize these in an educational system. Hence, this paper aims to systematically analyze the indicators of an excellent educational system based on various sources. Each indicator has components or sub-indicators that greatly influence the success of an educational system. The main objective is to create a model of an excellent educational system as an inspiration for improving the educational system.

## **2. METHODOLOGY**

This paper adhered to the systematic process of collecting and analyzing data for qualitative analysis. First, the author searched Google using the keywords "best educational systems" and related phrases. Then, she listed the factors of an excellent educational system as well as the components of these factors. She also read the required materials in the prescribed class Google Drive. In reading the materials, she applied strategies like previewing, scanning, and skimming until she grasped the essence of the materials. Using varied sources, she grouped similar factors and analyzed each factor comprehensively.

### **2.1 Data Analysis**

Given the findings and reviews from different studies and reviews, the author carefully analyzed the data. Using the table that contained indicators of an excellent educational system with respective components, the author employed "semantic analysis" to define each term clearly and discuss it accordingly using her cluster of criteria, which she listed and identified. With these strategies, the author developed her model of excellent educational systems. She also described each indicator by putting a specific adjective to it. This model served as the basis for writing conclusions and recommendations for application.

## **3. ANALYSIS AND DISCUSSION**

### **INDICATORS OF AN EXCELLENT EDUCATIONAL SYSTEM**

Based on the comprehensive review of the articles, four indicators emerged for the excellent educational system: *context indicators*, *input indicators*, *process indicators*, and *output indicators*. According to the UNESCO IIEP Learning Portal (2020), these indicators are used to analyze educational systems and measure educational quality. Figure 1 presents the different indicators for an excellent educational system.

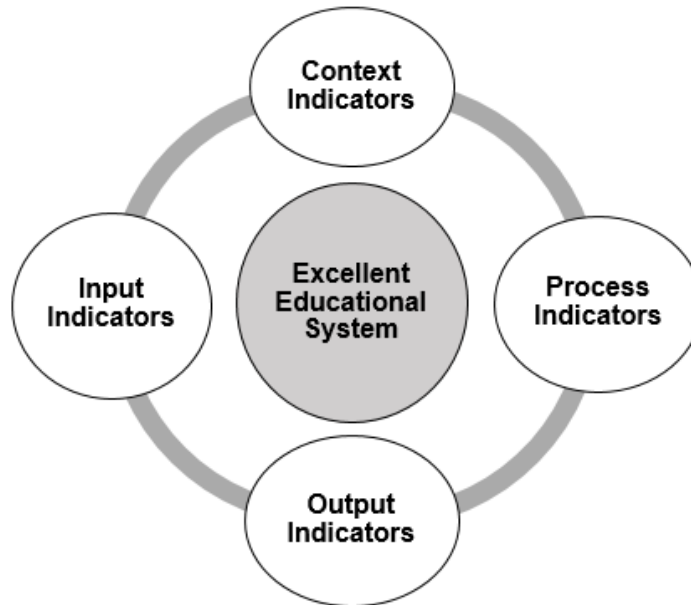


Figure 1. Indicators for the excellent educational system

### 3.1 CONTEXT INDICATORS

Semantically, "context" refers to the interrelated conditions in which something exists or occurs. It also describes the environment or setting where a particular thing or activity is implemented. Thus, it covers some factors within an environment that affect the operations of events. In understanding the success of a specific implementation, it is vital to study or consider the context.

In education, some context indicators affect its implementation or management. These contextual factors include *student characteristics*, *socioeconomic conditions*, *cultural aspects*, the *status of the teaching profession*, and *local community issues* (UNESCO IIEP Learning Portal, 2020)). These sub-indicators make up the entire context of an educational system, which may determine its success.

Similarly, Ginsburg and Smith (2014) illustrated the structure for contextual variables. It publicized that context indicators involve student factors, school factors, community factors, instructional content and practice, and community factors. Undeniably, these indicators contribute to the excellence of the educational system. Thus, it encouraged educators to consider past variables or conditions that measure essential characteristics of schooling and pay careful attention to variables that circumstances may alter as these affect the school context.

To evaluate or measure the success of context indicators, educators may utilize standard data-collection tools like surveys, classroom observations, inspection reports, and self-evaluations. However, context indicators are often challenging to develop and measure as they concern qualitative issues.

Given context's significant role and influence in education, it can be considered one of the indicators of an excellent educational system. Proper and good student characteristics, socioeconomic conditions, cultural aspects, the status of the teaching profession, and local community issues contribute to improving the educational system. The impact of these factors in the educational setting brings success in achieving

educational goals and objectives. Table 1 presents the context indicators to achieve an excellent educational system.

**Table 1. Context Indicators of an Excellent Educational System**

Indicators of an Excellent Educational System	Sub-indicators	Measurement
<b>Context Indicators</b>	Student Characteristics	Surveys, Classroom Observations, Inspection Reports, and Self-Evaluations
	Socioeconomic Conditions	
	Cultural Aspects	
	Teaching Profession Status	
	Local Community Issues	

### 3.1.1 Student Characteristics

This context indicator refers to the personal and academic background of the students that significantly contributes to their learning process. Personal traits involve gender, language, age, and cultural background. On the other hand, academic characteristics consist of logic, objectivity, intellect, insight, and practical applications. These elements impact how and what students learn. Understanding their characteristics promotes excellence in the educational system since it encourages educators to suit their teaching strategies according to the types of students they have. Thus, it enables students to learn more efficiently and effectively (TOP HAT Glossary, 2023).

Indeed, student characteristics are a central driver for student engagement. These characteristics influence teachers' behavior, teachers' need to monitor their students' engagement, and the need to make inferences concerning the underlying characteristics that affect their learning. Specifically, student characteristics comprise both cognitive and motivational-affective components. In order to improve students' learning, it is good to determine their characteristics to guide the teachers on how to treat students accordingly. This proposition will improve the educational system (Seidel et al., 2020).

Similarly, Brandmiller et al. (2020) claimed that student characteristics can influence teacher perceptions of students' cognitive skills. These can also influence teacher perceptions of motivation and behavior. These characteristics involved students' socioeconomic status, immigrant background, and gender. It is essential to examine students' characteristics to understand them better and adjust the teaching-learning activities based on their context.

Further, Orji and Vassileva (2022) revealed that student characteristics affect their willingness and ability to acquire new knowledge. Modeling student characteristics automatically during learning processes is essential for the dynamic and continuous adaptation of teaching and learning to each student's needs. Some characteristics include student learning motivation, engagement, affective states, and others. Detecting the characteristics can contribute to supporting and presenting personalized learning content and activities to students. Therefore, student characteristics are one of the context indicators for achieving an excellent educational system.

### 3.1.2 Socioeconomic Conditions

This contextual factor pertains to the social and economic status of the school that influences its management and implementation. According to Ginsburg and Smith (2014), socioeconomic condition or status revolves around three factors: family income and possessions, educational attainment of parents, and parental occupational status. These factors significantly affect excellence in the educational system since parents' influence on their students' education is relevant.

In addition, Satti and Jamil (2021) broadcast that social and economic factors affect students' dropout rates. Specifically, household economic condition is a notable factor in reducing dropouts. If the economic condition of a household is better than before, then there is less chance of the child dropping out of school. Similarly, the economic situation of the community where the household resides also affects dropouts. Improving the community's economic situation reduces the chance of child dropout.

Generally, socioeconomic condition is a factor in measuring the quality of education. Abenawe (2022) defined this as the level of education, income, and professionalism of an individual or group. It also encompasses income, occupation, education, neighborhood, and political power, affecting educational operations. To further prove the findings of the researcher's study, it showed a positive significant relationship between socioeconomic status and quality of education in secondary schools in Ibanda District. Thus, socioeconomic conditions influence a nation's educational quality as a whole.

### **3.1.3 Cultural Aspects**

According to the Collins Dictionary, "cultural" refers to a particular society, including its ideas, customs, and Art. On the other hand, the term "aspect" pertains to something that is one of the parts of its character or nature. Similarly, the Cambridge Dictionary defines "culture" as the way of life, especially a particular group's general customs and beliefs. At the same time, "aspect" means one is part of a situation or problem.

Relating to the definitions mentioned above, the cultural aspect in education refers to the schools' customs, culture, ideas, and operations, which all describe its context. These cultural aspects significantly contribute to the educational system since they influence how schools manage or implement educational activities. School leaders' actions, teachers' attitudes, and students' behavior depend upon the kind of culture they have in their school. Hence, educators should establish good cultural aspects in the school by demonstrating a culture of competence, respect, cooperation, unity, efficiency, honesty, diligence, and prudence. By establishing good customs, all elements of the educational system will follow.

### **3.1.4 Teaching Profession Status**

This context indicator refers to the condition of teachers' work in the school. According to Kas poğlu (2020), teaching profession status is essential because it can affect teachers' perspectives on the profession, motivation levels, and professional disciplines. Hence, the research aimed to investigate the changes in the teaching profession from past to present, the factors affecting the change in the status, and solutions to increase the teaching profession's status. Results revealed fundamental changes in the teaching profession status from past to present. Teachers expressed that some factors affecting change involved the policies followed by the system, the value of teachers in society, the loss of prestige, and the low income of teachers. Thus, it was suggested that teachers conduct a broader range of research and take measures to improve their status levels using different methods.

Kahraman and Çelik (2020) aimed to determine teachers' perceptions about their professional status by exploring the teaching profession status. Results showed that teachers evaluate professional status in the context of social and economic conditions. They conveyed that factors influenced their status, such as personal rights, admission requirements, autonomy, and the private lives of professionals. Although the teachers' perceptions about the respectability of the profession are positive, their perceptions about the profession's status are negative. They believed that the profession's status had changed negatively with the changes in society, politics, and teacher context from past to present. They added that parents' and students' behaviors towards teachers, professional, organizational, and personal factors, teacher education and appointment system, socioeconomic conditions, and social perception affect the status of their teaching profession. Thus, teachers believed it was vital to improve professionalism, social and economic rights, and social perception to increase the status of their teaching profession.

Generally, it is relevant to consider the teaching profession status as one of the context indicators in achieving an excellent educational system. Understanding their status could help educators design activities, generate sound decisions, and adjust actions.

### 3.1.5 Local Community Issues

This context indicator pertains to issues in the community where the school is located. Community plays a vital role in improving educational systems. Hence, the issue within the community can affect the schools within it. According to Mkhabela (2019), a school that has strong relations with the community is most likely to flourish. In this regard, the school is perceived as a public asset to be cherished and supported by all in the feeder community. Since education is a public good, it must be valued by the community and the people. It is also beneficial to protect or preserve this. This is the responsibility of all community role players, stakeholders, and educational institutions.

The community can help schools achieve excellence in the educational system. Community partners share a common interest in the student's education. They are experts in their fields and can share their knowledge with the students and the school. Through these partnerships, long-term reciprocal relationships can develop. Community partners can become co-educators and partners in education. They can help the school implement various school activities. Thus, having good local community issues can influence an excellent educational system.

### 3.2 INPUT INDICATORS

Technically, the word "input" pertains to something put in. It is the act or process of putting in a particular material, amount, energy, and power to carry out operations, activities, or events. Hence, it is necessary to have sufficient inputs and appropriate allocation of these to do a sure thing successfully.

In education, input indicators are vital in managing and implementing teaching-learning activities. Without something to put in, education will not take place. The input indicates or measures the deployment and use of resources to facilitate learning. These inputs or resources involve *financial, material, and human resources* that influence the success of an educational system (UNESCO IIEP Learning Portal, 2020).

Similarly, the OECD (2021) also conveyed the importance of inputs or resources invested in education. These input indicators involved financial resources (money), human resources (teachers and school staff), and physical resources (buildings and infrastructure), which all help achieve excellent educational systems.

To monitor the utilization of the resources mentioned above, input indicators reveal whether the planned financial, material, and human resources are being delivered in the planned quantities at all levels of the system. Fortunately, information on input indicators is relatively easy to obtain since inputs are often "countable" by nature. Management processes involve keeping records of many inputs automatically. The only challenge lies in the differences between producing inputs and ensuring they are available at the endpoint.

The significant contribution of input in executing educational operations can be considered one of the indicators of an excellent educational system. Adequate and proper utilization of inputs such as financial, material, and human resources contribute to the progress of educational systems. Therefore, schools should ensure that input indicators are planned accordingly to obtain an excellent educational system. Table 2 presents the input indicators to achieve an excellent educational system.

**Table 2. Input Indicators of an Excellent Educational System**

Indicators of an Excellent Educational System	Sub-indicators	Measurement
Input Indicators	Financial Resources	Countable Management Processes and Input Records
	Material Resources	
	Human Resources	

### **3.2.1 Financial Resources**

This input indicator refers to the funds and assets that finance an organization's activities and investments. Thus, these keep the business operating. Organizations can find several ways to raise funds and utilize financial resources effectively to achieve an excellent system. Financial resources are vital in purchasing resources to deliver teaching-learning activities in education.

In measuring financial resources, Jackson (2023) explains how to calculate these. Educators can look into the percentage of students on aid by calculating the number of students receiving some financial assistance, like scholarship money or government aid. In a secondary school, they may also track those on meal assistance. It is also essential to track the fundraised money for an institution through endowments, donations, or partnerships to better understand the allocation of financial resources.

### **3.2.2 Material Resources**

This input indicator refers to facilities and physical assets like textbooks, visual aids, charts, maps, laboratory equipment, chalkboard/ whiteboard, playgrounds, laboratories, libraries, instructional tools, writing materials, classrooms, and other materials applicable to the education system. These resources are vital in teaching and learning since educational institutions use them to implement educational activities. They also act as ancillaries for the achievement of educational goals and objectives. Hence, these are integral to a well-organized and excellent school system (Osuji & Iheanyichukwu, 2021).

Even previous studies showed that resources undeniably influence the goal attainment of public secondary schools. Hence, it is necessary to examine leaders' resource management skills. The findings of the study conducted by Okon et al. (2020) confirmed this since resource management has a partially significant relationship with goal attainment in secondary schools. Thus, they also discussed relevant policy implications in which principals should effectively and prudently utilize available material resources and internally generated funds for judicious purposes to achieve educational goals.

In measuring the achievement of educational goals, the 2018 Philippine PISA (Programme for International Student Assessment) data reveal salient variations in academic achievement between schools and among students. However, the Philippines' participation in the PISA allowed them to investigate a representative sample of 15-year-old students and the various factors associated with their achievement. Material resources can be one of the factors that influence students' PISA achievement (Trinidad, 2020).

Furthermore, Ibrahim et al. (2021) conveyed that resources can significantly affect teachers' job satisfaction. These can help teachers cope with their workload. Previous studies also stated that the resources could alleviate teachers' stress. Correspondingly, the findings of their study revealed that resource element is an essential factor in task management. Researchers also agreed that adequate resources could prevent teachers' workloads from occurring. Therefore, it can be stated that the resource element is essential in managing tasks well and achieving an excellent educational system. Teachers cannot enjoy teaching without material resources, affecting students' learning and the educational system.

### **3.2.3 Human Resources**

Human resources refers to assets or people working together to achieve a common goal. Human resources play a significant role in conducting institutional and educational activities as they perform their duties and functions. Hence, human resource management is essential to education (Tanjung, 2020). The way schools manage their resources will affect their achievement. They must consider that competent human resources are the most critical capital for schools to develop school organizations, including schools at the basic education level (Gunawan et al., 2020).

Similarly, Qutni et al. (2021) revealed that one of the crucial areas in education management is related to human resources such as teachers and administrative personnel. Indeed, human resource management is vital in improving the quality of education. In the same way, education quality can also determine the quality of the people in an organization. The quality of human resources can give an edge from one organization to another.

Moreover, Hermawan et al. (2021), as cited in Wehrmeyer (2017), added that good human resources can serve as company assets because the company's success depends upon the quality of employees. Organizational personnel who deliver high-quality work benefit their co-workers and the institution. Hence, schools should ensure that human resources are qualified and competent to achieve an excellent educational system.

### 3.3 PROCESS INDICATORS

The word "process" refers to a series of actions or operations leading to an end. It also pertains to something that is going on. Since it is happening, it is marked by gradual changes that lead toward a particular result. Hence, it describes how or how things are done to achieve specific goals.

Process indicators are vital as these measure how educational program activities are conducted. These indicators monitor whether school activities were carried out to the desired standard of quality or not. Process indicators include how specific educational processes are conducted in practice, like *applying standards, teaching quality, time on task, school climate, and educational leadership* (UNESCO IIEP Learning Portal, 2020)).

Process indicators also concern qualitative issues. Hence, these indicators may be obtained through surveys, pedagogical observations, inspection reports, and self-evaluations. Excellent and proper application of standards, teaching quality, time on task, school climate, and educational leadership positively impact an educational system.

The mentioned features of process indicators convey their significance as indicators of an excellent educational system. The manner or the process of how schools apply standards or rules, teach with quality, do tasks on time, maintain a positive school climate, and exhibit leadership can bring excellence to the educational system. Therefore, it is beneficial to consider process indicators in aiming for educational success. Table 3 shows the process indicators for obtaining an excellent educational system.

**Table 3. Process Indicators of an Excellent Educational System**

Indicators of an Excellent Educational System	Sub-indicators	Measurement
<b>Process Indicators</b>	Application of Standards	Surveys and Pedagogical Observations, Inspection Reports, and Self-Evaluations
	Teaching Quality	
	Time on Task	
	School Climate	
	Educational Leadership	

#### 3.3.1 Application of Standards

This process indicator pertains to enforcing rules and guidelines in implementing programs. Abiding by the prescribed orders and memoranda can contribute to excellence in the educational system. With this, schools are guided with the appropriate practices and systematic ways of achieving educational goals.

According to Ginsburg and Smith (2014), some standards include a student-centered approach, aligned rigorous content, teaching for understanding, and adjustment for student learning differences, which all promote excellence in the educational system.

To apply standards, the Department of Education continues to drive improvements to teaching quality with new standards for school leaders. It encourages school heads and supervisors to improve teacher quality by issuing two landmark education policies that set professional standards for the country's school leaders. It is DO 24, s. 2020 or the National Adoption and Implementation of the Philippine Professional Standards for School Heads (PPSSH) and DO 25, s. 2020 or the National Adoption and Implementation of the Philippine Professional Standards for Supervisors (PPSS). These instances explicitly show that DepEd is very particular about applying standards to improve the educational system.

Acknowledging the value of the standard application, the University of Massachusetts Amherst (2022) defined a standard as a document that provides requirements, specifications, guidelines, or characteristics that can be used consistently to ensure that materials, products, processes, and services fit their purpose. Following standards is vital to provide a common language to measure and evaluate performance. It also frames, guides, and normalizes almost all areas of the organization. Similarly, the British Standards Institution (2023) shared that applying standards is essential as it lets organizations fine-tune performance and manage risks while operating more efficiently and sustainably. Lastly, it helps individuals see how to embed best practices into an organization.

### **3.3.2 Teaching Quality**

Teaching quality refers to teachers' credentials and perspectives that they bring to the classroom, like their instructional strategies. Ginsburg and Smith (2014) broadcast that teaching quality comprises teachers' academic content knowledge, mindset or disposition, and experience. These variables significantly influence success in education since teachers are considered drivers of the teaching-learning process. Whatever the activities they implement inside the classroom, how they treat students could impact the success of an educational system.

Exploring the quality of teaching, Graham et al. (2020), as cited in Pianta and Hamre (2009), stated that teaching quality involves a range of teaching practices that positively contribute to students' emotional, behavioral, and academic outcomes. This teaching quality is evident in their observed classroom behaviors in areas of classroom management, social support for students, and instruction. In measuring the quality, educators can reflect on student performance in standardized assessments.

However, quality teaching is controversial and has raised debates among scholars. They said that quality teaching can never be grasped and appraised since the issue of measuring quality teaching is highly crucial. Sadly, the choice of valid indicators to assess the quality of teaching is not yet standardized and is still challenging (Baghdadi, 2021).

Lindgreen et al. (2022) also confirmed the challenge in measuring teaching quality. They reasoned that each instructor brings his/her training, experience, style, and capabilities to the classroom, making it notoriously difficult to establish a fair teaching quality metric. Hence, there is a need for a better technique to identify each instructor's strengths in teaching-related activities and places for improvement. With this, it can be noted that teaching quality also covers teachers' training, experience, style, and capabilities, which all contribute to excellence in the educational system.

Generally, teaching quality is one of the most essential topics in education because of its significant impact on student achievement. Various studies have shown that teacher quality is one of the most important school-related factors in student achievement. Teaching quality involves multiple factors, such as the teacher's instructional strategies, classroom environment, and the quality of the student's learning outcomes. In understanding this further, it is essential to consider the teacher's ability to create a positive learning environment, engaging instruction, and practical assessment of student learning. It is believed that

a high-quality teacher should be able to create a classroom climate that allows for active student engagement and promotes critical thinking (Tikrity, 2023). Therefore, teaching quality is a good indicator of an excellent educational system.

### **3.3.3 Time on Task**

This fact means that the time a student spends actively engaged in a learning task. It has been suggested that increasing students' time-on-task could improve learning results. Hence, time on task correlates with students' and schools' performance. Predicting students' future success can allow instructors to deploy interventions to help struggling students proactively. Therefore, time-on-task is one key contributor to learning (Leinonen et al., 2022).

According to the time-on-task hypothesis, the amount of time an individual devotes to an instructional task determines the extent to which learning occurs. Therefore, time off-task hampers learning by limiting learning opportunities. Prior research has generally found a positive relationship between time on task and achievement. Overall, on-task behavior was positively correlated with learning, controlling for gender, school type, and grade level. Hence, educators should consider time on task in delivering educational programs and activities (Godwin et al., 2021).

### **3.3.4 School Climate**

This process indicator refers to the general features of the school, such as school facilities, instructional resources, surrounding neighborhoods, policies that shape curriculum standards, class size, compensation, culture, and interpersonal environment that influence educational activities. According to Ginsburg and Smith (2014), it also includes school safety, teacher expectations for students, student absenteeism (not excessive), teacher support for one another, principal, and mindset.

According to Ryberg et al. (2020), as cited in Thapa et al. (2013), school climate broadly refers to the quality of multiple facets of a school's environment to support student learning. The US Department of Education's School Climate Survey (EDSCLS) measures this through its three domains: engagement, safety, and environment. The schools, districts, and states increasingly recognize the need to improve school climate to promote students' academic, social, and emotional well-being. Given the significant role of school climate in learning, it can be considered an indicator of an excellent educational system.

School climate indicates an excellent educational system as it can support or hinder effective instruction and teachers' professional growth. It consists of organizational features such as supportive leadership, teacher collaboration, high student expectations, and a collective commitment to support student learning. Moreover, solid professional environments foster a virtuous cycle in which teachers develop skills faster, stay at a school longer, and improve student learning years (Kraft & Falken, 2020).

Further, a positive school climate significantly contributes to the educational system by giving students a sense of safety and belonging. Besides, this improves students' academic achievement, test scores, grades, and engagement. It also helps in reducing the adverse effects of poverty on academic achievement. Thus, schools should promote a good school environment by creating school and classroom structures that cultivate knowledge, skills, and beliefs, building educators' understanding of student needs and their ability to support learning and development. Generally, educators need to gain the knowledge, skills, and attitudes to meet their students' needs (Darling-Hammond & DePaoli, 2020).

### **3.3.5 Educational Leadership**

This process indicator pertains to the process of guiding and leading the conduct of educational activities to achieve educational goals. It also involves uniting key educational players towards collaborative work to obtain the common good. Hence, it is vital in an educational system.

Exploring the impact of educational leadership in the education system, Tian and Huber (2020) examined the development of educational leadership, administration, and management research by identifying

thematic strands that hallmark crucial publications. Findings reveal five thematic strands: school leadership for enhancing students' academic achievement and teachers' effectiveness; leadership for educational change, accountability, and promoting democratic values; leadership for social justice, equal education, and narrowing achievement gaps; principal's instructional leadership for school improvement; and distributed leadership and its impact on organizational climate and teachers' attitudes and stress. Given the result, it can be noted that educational leadership is a vital indicator of an excellent educational system.

Moreover, Pannell and Sergi-McBrayer (2020) conveyed that the role of the principal as an educational leader has evolved from the keeper of the keys, chiefly responsible for building maintenance and discipline, to one of the integral keys to student success. Nowadays, principals are responsible for many areas that impact the achievement of all students, including curriculum planning and supervision, managing funds, ensuring legislative compliance, implementing reforms, and, most notably, instructional leadership. These roles implied they played a significant part in achieving an excellent educational system.

In performing educational leadership, leaders encountered many factors that influenced their leadership skills since each school differed in geographic and cultural context. The study's findings publicized that school leaders adjust their actions and methods based on the surrounding cultural impact. Thus, educational leaders need to understand these potential impacts if they work in culturally diverse communities (Fisher, 2021).

Further, the importance of educational leadership in schools is evident in many aspects. Many scholars have found in recent research that a transformational educational leadership approach has a beneficial connection with members' engagement. When engaged, staff are likely to perform better in an organization. Thus, they can contribute significantly to the educational system (Asefa & Kant, 2022).

### **3.4 OUTPUT INDICATORS**

"Output" means something produced out of an action or effort. It also refers to producing a desired product, material, amount, power, and energy in a given time. Hence, it generally pertains to what a person, machine, or industry produces based on objectives.

In education, output indicators determine the outcomes or effects of educational activities to see whether the program objectives were attained. Output indicators reveal the education system's performance regarding *subject knowledge, competencies, repetition, progression and completion rates, and employer satisfaction* (UNESCO IIEP Learning Portal, 2020). Hence, schools must look into the improvement and success of these factors.

The measurement of output indicators may be obtained through national examinations, international assessments, surveys, and systematic field observations. Output indicators typically involve the measurement of learning outcomes based on national examinations or international assessments. Moreover, OECD (2021) publicized that output indicators analyze the characteristics or qualities of the graduates, such as their educational attainment.

Similarly, the productivity view conveys that a system's success depends upon attaining its aspired outputs or outcomes. According to this view, output indicators are predominant or the only quality indicators needing monitoring (Scheerens, 2004). Hence, educators should focus on improving output indicators as these affect educational systems.

The various impacts of output indicators in education are essential to achieving an excellent educational system. These provide the most critical data for understanding whether educational quality and learning outcomes are improving as intended. Table 4 presents the output indicators to obtain an excellent educational system.

**Table 4. Output Indicator of an Excellent Educational System**

Indicators of an Excellent Educational System	Sub-indicators	Measurement
<b>Output Indicators</b>	Subject Knowledge	National Examinations, International Assessments, Surveys, and Systematic Field Observations
	Competencies	
	Repetition Rate	
	Progression and Completion Rates	
	Employer Satisfaction	

**3.4.1 Subject Knowledge**

This indicator refers to students' range of information or understanding through schooling. Hence, this can be considered educational output, significantly contributing to the educational system. This is the reason why there are lots of examinations that measure students' subject knowledge. Results from the examinations reflect success or failure in the educational system. However, some factors also affect subject knowledge.

Regarding factors affecting subject knowledge, Jacob et al. (2020) conveyed that teacher quality is essential in determining student achievement gains. Teacher's knowledge matters most in producing students' learning outcomes. Hence, teachers must process and evaluate new knowledge relevant to their core professional practice and regularly update their knowledge base. After all, subject knowledge measures schools' efficiency.

**3.4.2 Competencies**

According to the National Institutes of Health (2023), competencies are the knowledge, skills, abilities, and behaviors contributing to individual and organizational performance. Knowledge is information developed or learned through experience, study, or investigation. Meanwhile, skill results from repeatedly applying knowledge, while ability is an innate potential to perform mental and physical actions or tasks. On the other hand, behavior is the observable reaction of an individual to a particular situation. Each competency's target proficiency level will vary based on an individual's position and the organization's needs.

In addition, the Cambridge Dictionary defines competencies as essential skills that are needed to do a job. Similarly, IGI Global associated these with a capacity to respond to individual or societal demands to perform an activity or complete a task. They are developed through acting and interacting in formal and informal educational or professional contexts and require going beyond the mere reproduction of acquired knowledge.

Given the various definitions of competencies, these can be assets in improving the educational system. These serve as educational outputs since they are developed by the learners, teachers, and personnel in the teaching-learning process. Generally, competencies are a school's output indicators that can influence an educational system.

**3.4.3 Repetition Rate**

This performance indicator determines the magnitude of learners who repeat a grade level. This can be compared by grade level and average per grade level. A high repetition rate implies a high wastage of resources (DepEd Quezon, 2022). Hence, this can be considered as one of the indicators of an excellent educational system.

Similarly, the UNESCO Institute for Statistics (2023) describes repetition rate as the proportion of learners from a cohort enrolled in a given grade at a given school year who study in the same grade in the following school year. Data can be gained from the school register or school census for data on enrolment and repeaters by grade. Ideally, the repetition rate should approach zero percent. High repetition reveals problems in the internal efficiency of the educational system and possibly reflects a poor level of instruction. When comparing across grades, the patterns can indicate specific grades for higher repetition, requiring a more in-depth study of causes and possible remedies. Generally, this serves as one of the output indicators that influence an excellent educational system

#### **3.4.4 Progression and Completion Rates**

Progression rate looks at the pace that students are on to complete their degree. In contrast, the completion rate calculates the number of enrolled students who have completed their degree program divided by the total number of students who have completed, withdrawn, or canceled their degree program (Newlane University, 2019). These indicators can serve as assets in achieving an excellent educational system.

In addition, Jackson (2023) stated that completion or graduation rate determines the number of students who completed their schooling or received a particular certificate or degree within the standard time frame. This data can represent a school's success in providing quality education to students.

#### **3.4.5 Employer Satisfaction**

This output indicator refers to fulfilling a need or want by a person or company that provides a job. It also indicates the employer's satisfaction with the employee (Merriam-Webster). Indeed, employers are satisfied with the employees' qualities, which are influenced by the schools that mold them to be satisfactory. Hence, schools are a part of their qualities. Employer satisfaction can indicate whether a particular educational system is excellent.

The importance of employer satisfaction as one of the bases of an excellent educational system is evident even in the past. According to Sha and Nair (2011), employers are one of the most critical stakeholders of schools. However, there is limited research in Australia on employer satisfaction with the quality of university graduates and the critical capabilities of early career graduates for employers in various professions. Such research is critical as governments in many countries are enhancing quality assurance of higher education with a focus on academic standards and the extent to which students have achieved learning outcomes. Hence, the researchers examined employers' views about the essential skills and attributes needed in early career graduates to meet changing industry trends in various professions.

Given the points above, it can be noted that employer satisfaction can serve as a reflection for educational institutions to assess the quality of their graduates. In assessing the competence of the graduates, it is relevant to consider the desired qualities of the employer and establish these qualities in the teaching-learning process. Once the employee is satisfied, obtaining an effective and excellent educational system will affect the school's reputation.

### **4. DESCRIBING AN EXCELLENT EDUCATIONAL SYSTEM (CLASS A MODEL)**

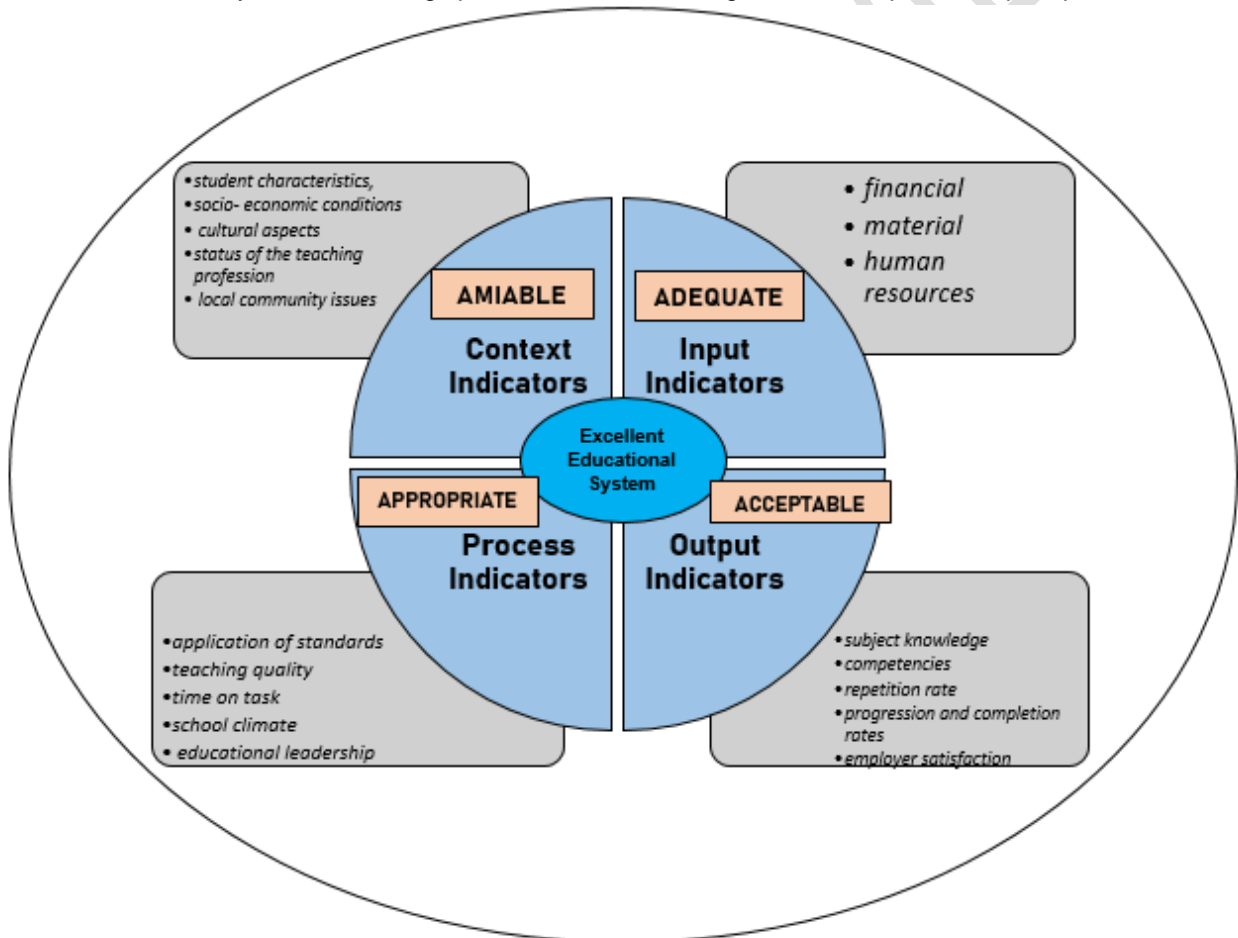
After the analysis and discussion of the indicators of the educational system, it is good to add some adjectives that describe indicators of an excellent educational system. These indicators complete an educational system but do not guarantee "excellence" without description. To achieve teaching excellence, educational systems must have the "Class A Model," which stands for **A**miable Context, **A**dequate Input, **A**ppropriate Process, and **A**cceptable Output. Author named this model "Class A" because of the meaningful adjectives that start with the letter "A," which ranks first in the alphabet.

The word "**amiable**" means friendly, sociable, and admirable. It perfectly describes an excellent context to promote a supportive and pleasant educational context for the teaching-learning process to take

place effectively. Having amiable *student characteristics, socioeconomic conditions, cultural aspects, status of the teaching profession, and local community issues* can help achieve an excellent educational system.

Another essential factor of an excellent educational system is "Adequate Input." "**adequate**" refers to sufficient or good enough for a specific need or requirement. Having adequate financial, material, and human resources is significant for implementing educational activities effectively. Sufficient resources can also aid the teaching and learning process toward an excellent educational system.

Moreover, an excellent educational system needs an Appropriate Process. The adjective "**appropriate**" means a sure thing is suitable or compatible. Executing an appropriate manner of conducting educational programs and activities is an asset for the educational system's success. Learning how to conduct educational processes appropriately *by applying standards, teaching quality, time on task, school climate, and educational leadership* can significantly contribute to excellence in the educational system. Finally, educational systems should also aim for Acceptable Output. The word "**acceptable**" means capable or worthy of acceptance since it meets a certain standard. Acceptable *subjects such as knowledge, competencies, repetition, progression and completion rates, and employer satisfaction* can create an excellent educational system. Achieving specific standards through these acceptable outputs proves that a



specific educational system is achieving its goals and objectives. Figure 2 shows the Class A Model of Excellent Educational System.

Figure 2. "My Class A Mode of Excellent Educational System"

## 5. CONCLUSION

This paper aimed to systematically analyze the indicators of an excellent educational system based on various sources. Each indicator has components or sub-indicators that greatly influence the success of an educational system. The main objective is to create a model of an excellent educational system.

Based on the qualitative data analysis, four indicators emerged for the excellent educational system: *context indicators*, *input indicators*, *process indicators*, and *output indicators*. **Context indicators** pertain to the interrelated conditions, environment, or setting that affect educational operations. These context indicators include *student characteristics*, *socioeconomic conditions*, *cultural aspects*, *status of the teaching profession*, and *local community issues*. These sub-indicators make up the entire context of an educational system, which may determine its success.

Meanwhile, **input indicators** are resources like material, amount, energy, and power to carry out operations, activities, or events. Hence, it is necessary to have sufficient inputs and appropriate allocation of these to do a sure thing successfully. Without something to put in, education will not take place. The input indicates or measures the deployment and use of resources to facilitate learning. These inputs or resources involve *financial*, *material*, and *human resources* that influence the success of an educational system.

On the other hand, **process indicators** refer to a series of actions or operations leading to an end. These also describe how to implement programs and activities to achieve educational goals. Process indicators are vital as these measure how educational program activities are conducted. These indicators monitor whether school activities were carried out to the desired standard of quality or not. Process indicators include how specific educational processes are conducted in practice, *such as applying standards*, *teaching quality*, *time on task*, *school climate*, and *educational leadership*.

Lastly, **output indicators** are things that are produced out of an educational action or effort. These also refer to producing a desired product, material, amount, power, and energy in a given time. These determine the outcomes or effects of educational activities to see whether the program objectives were attained. Output indicators reveal the education system's performance regarding *subject knowledge*, *competencies*, *repetition*, *progression and completion rates*, and *employer satisfaction*. Hence, schools must look into the improvement and success of these factors.

Generally, these indicators are vital in measuring the success of an educational system. **Amiable Context**, **Adequate Input**, **Appropriate Process**, and **Acceptable Output** indicators must go together to implement educational programs and activities smoothly and effectively. The absence of one indicator may affect other indicators, as these indicators need one another to complete an educational system. Hopefully, achieving an excellent educational system will be easier if all indicators are adequate and reasonable.

## RECOMMENDATIONS

Based on the various sources, this paper identified four indicators for an excellent educational system: *context*, *input*, *process*, and *output* with their respective sub-indicators. These findings expressed the importance of measuring the quality of an educational system with these standards.

Given the importance of **Amiable Context**, **Adequate Input**, **Appropriate Process**, and **Acceptable Output** in achieving an excellent educational system, it is vital for critical educational players to focus on and improve aspects of these indicators. Specifically, educational leaders are encouraged to design and implement activities based on these indicators. They should ensure that these indicators are all present in the educational system since the absence of one indicator will hinder other operations. They can assess the context indicators of an educational system by analyzing *student characteristics*, *socioeconomic conditions*, *cultural aspects*, the *status of the teaching profession*, and *local community issues*. After the analysis, they can plan solutions or interventions to overcome contextual challenges. They can adjust their activities according to the current context to better understand educational aspects.

Aside from focusing on the context indicators, examining the input indicators governing an educational system is also relevant. It is suitable for administrators to equip themselves with *financial, material, and human resources* management. They must have sufficient knowledge in understanding and managing these resources to achieve an excellent educational system. They must also be resourceful and prudent in handling financial and material resources. Further, it is essential to establish professionalism and respect among human resources.

The context and input indicators are insufficient to achieve an excellent educational system. Educational leaders should also consider the process by examining how specific educational processes are conducted in practice, such as the *application of standards, teaching quality, time on task, school climate, and educational leadership*. These aspects are vital to understanding educational operations' flow better and adjusting appropriately.

Further, they must consider output indicators like *subject knowledge, competencies, repetition, progression and completion rates, and employer satisfaction*. These are essential components of an educational system that leaders must consider. They can improve these indicators by improving the curriculum to better respond to the current needs. They can also enhance criteria in measuring the performance indicators.

To support educational leaders in enforcing the indicators of an excellent educational system, teachers also play a vital role in translating educational visions into reality since they are closer to the field. Through continuing professional development, they must also equip themselves with context, input, process, and output indicators. They can better apply these indicators in the teaching profession with sufficient knowledge of these indicators. Teachers must adjust their teaching strategies to the educational context, learn about the inputs, understand the educational processes, and help the school achieve good output by teaching competently and passionately.

Finally, stakeholders like parents, LGU officials, and work immersion partners can also help the schools implement educational activities through their social, financial, and moral support. They play a vital role in the educational system context, especially in *socioeconomic conditions, cultural aspects, and local community issues*. In terms of input indicators, they can support the school by providing financial assistance to shoulder material resources and even human resources by assigning a local school board teacher to aid in meeting school needs. Moreover, they can also improve the educational process by helping the schools establish a good school climate. Lastly, they can do something to improve output indicators competencies and employer satisfaction. Generally, all vital educational players practice amiable con adequate input, appropriate processes, and acceptable output to achieve an excellent educational sys

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