



Collaboration in action: Strengthening accountability to transform education systems

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Abstract

Addressing accountability gaps in education is increasingly essential to ensure fair and effective learning outcomes. This study examines the role of accountability in education, focusing on its impact on learning outcomes, curriculum evaluation, and teacher satisfaction. It highlights the need for collaboration among governments, administrators, and educators to overcome challenges and promote inclusive education. The research advocates for policy reforms to enhance equity, access, and quality education, particularly for marginalized groups, emphasizing stakeholder cooperation for better educational outcomes. Using a data mining approach, the study analyzes global frameworks and practices to identify gaps and best practices in resource allocation and student performance. The findings inform policies supporting inclusive and equitable education worldwide. Results highlight systemic issues such as misplaced priorities, inefficient resource management, and disparities in student achievement. The study concludes that fostering educational equity and effectiveness globally requires inclusive policies, trust-building, and clear accountability measures.

Keywords: Accountability, learning outcomes, curriculum evaluation, teacher satisfaction

Introduction

In educational leadership, accountability is a critical and multifaceted component that enhances trust and efficacy within schools, divisions, and even provincial departments as they strive to achieve their goals. However, despite its frequent use, accountability is often loosely defined. Yan (2019) identifies accountability as a form of responsibility, encompassing the duties teachers have toward their students and the obligations of educational leaders to create opportunities for teacher development. The concept of “pyramidal accountability of performance” (Chitpin & Jones, 2015, p. 389) illustrates the interconnected responsibilities of government officials, administrators, and teachers within the educational system. When the system functions effectively, each level is accountable to and supportive of the others. However, when achievement levels fall short, this pyramid can invert, fostering a culture of blame where stakeholders deflect responsibility rather than embracing it. Smith and Benavot (2019) emphasize trust as a foundational element for accountability in education, yet a lack of trust often exists between government and school levels, undermining collaboration and system effectiveness. UNESCO highlights that defined roles and duties at all levels—government, schools, and educators—are essential to accountability in education. By emphasizing student learning outcomes and guaranteeing openness in resource allocation and utilization, this method promotes equity and excellence in education. UNESCO’s emphasis on defined roles, student learning outcomes, and transparent resource allocation is highly relevant to the Philippine educational context. The clear delineation of responsibilities between DepEd, local government units, and schools is crucial for efficient program implementation and resource management, particularly in addressing persistent issues like classroom shortages and delayed textbook deliveries. A stronger focus on learning outcomes, as seen in the National

Achievement Test (NAT), must be complemented with more inclusive evaluations to support diverse learners, especially in underserved areas. Efforts like the “Last Mile Schools Program” reflect progress in promoting equity, but a collaborative accountability model involving all stakeholders is needed to ensure quality and equitable education across the country. By adopting UNESCO’s framework, the Philippines can better address systemic challenges and advance its educational goals. The right to education is a fundamental human right recognized globally, often referred to as a “universal entitlement.” Numerous international treaties and legal frameworks affirm this right, including the Universal Declaration of Human Rights (1948) and the International Covenant on Economic, Social and Cultural Rights (ICESCR, 1966). These documents underscore that every child, regardless of nationality, ethnicity, or socioeconomic background, has the right to access quality education. UNESCO (2014) highlights that the role of governments goes beyond merely respecting this right—they are obligated to actively protect it by ensuring that all children can access education without discrimination and to fulfill this right by creating conditions that enable all learners to benefit from education. The main point is straightforward: every student matter and is treated equally. The difficulty comes when we attempt to implement this idea. Education policy can influence and support inclusive thinking and practices by establishing the equal right of every individual to education and by outlining the forms of teaching, support, and leadership that lay the foundation for quality education for all. Putting this message into practice will probably require changes in thinking and practice at every level of an education system, from those in charge of national policy to classroom teachers and others who directly provide educational experiences (UNESCO, 2015b). Equity and Inclusion in Education.

This obligation includes providing free, quality primary education, eliminating barriers that hinder access, and addressing disparities such as gender, disability, and socioeconomic status. The state's responsibility extends to establishing laws, policies, and resources that support inclusive education systems and promote lifelong learning opportunities for all. In essence, these legal instruments reinforce the idea that education is not only a right but a cornerstone for promoting equality, social cohesion, and sustainable development. By fulfilling these obligations, states contribute to the overall well-being of individuals and societies at large.

In addition to the ICESCR and Universal Declaration, other instruments like the Convention on the Rights of the Child (CRC, 1989) and the Sustainable Development Goals (SDGs) further emphasize the state's responsibility to ensure the right to education for all. Government, schools, and teachers are expected to collaborate in ensuring quality learning outcomes, implementing effective curricula and evaluations, and promoting professional autonomy and teacher satisfaction. However, in practice, these entities often operate in silos, with misaligned priorities and approaches that compromise the fundamental goal of providing equitable and effective education across the country. The capacity for teamwork is increasingly becoming a crucial element of modern educational reform. Initiatives for shared governance have thus been complemented with support for cooperation as a strategy for attaining progress. Accordingly, the demand for cooperation has also been a recurring topic in the discourse surrounding reform (Welch, 1998). The relationship between the various elements in the school improvement process is still somewhat unclear, even though collaboration is the foundation of and, in fact, the core of school improvement projects (Spillane & Seashore Louis, 2002).

Analyzing the conclusions on gaps in accountability in education is crucial for identifying root causes of systemic issues, such as misaligned priorities, poor communication, and resource mismanagement. It ensures that policies aimed at improving equity and inclusivity are effectively implemented and responsive to local contexts. By uncovering inefficiencies and promoting collaboration among governments, schools, and educators, such analysis enhances stakeholder alignment and shared decision-making. Moreover, addressing accountability gaps helps ensure resources are distributed equitably and supports targeted strategies to mitigate the impact on marginalized groups. This holistic approach ultimately fosters a more inclusive, effective, and transparent educational system.

Hence, this research analyzes the accountability frameworks in education across continents, emphasizing how they connect, how they foster trust, and how government, school, and teacher levels interact together. With the analysis, it can be assessed how accountability frameworks affect educational inclusion and fairness by looking at differences in student learning results and resource distribution across various international context. Using knowledge from comparative studies of other continents, to discover best practices and gaps in the implementation of accountability measures in education to inform more inclusive and successful educational policy.

Method

To gain a thorough grasp of accountability frameworks and their effects on educational results across continents, this study uses the data mining method to methodically extract, analyze, and explain patterns and correlations from enormous datasets presented in tables, graphs, charts.

Results and Discussion

This part displays the learning outcomes, curriculum and evaluation, professional autonomy, and teacher satisfaction in every continent of the world and the selected countries to represent the continent showing their study on learning outcomes emphasizing the gaps, ways to address the gaps and its implication to education.

Table 1: Learning Outcomes

Continent	Gaps Reported	Ways to Address the gaps
Asia	3	2
Africa	4	3
North America	2	1
South America	3	2
Europe	0	0
Antarctica	0	0

This part displays the learning outcomes in every continent of the world and the selected countries to represent the continent showing their study on learning outcomes emphasizing the gaps, ways to address the gaps and its implication to education.

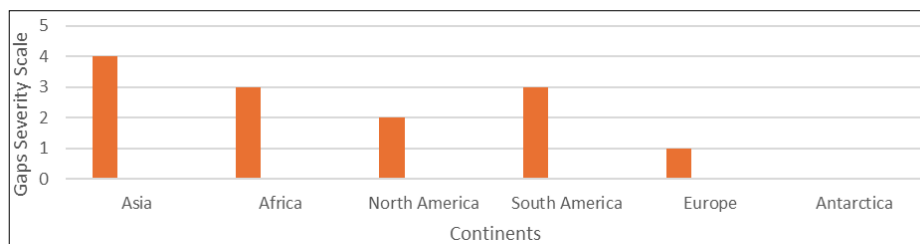
This table shows the reported gaps and the ways to address them in the learning outcomes with Asia and Africa showing the highest number of reported gaps such as limited understanding on students' performance in PISA and TIMSS, inadequate teacher preparation and funding in English, teacher absenteeism, lack of proper training, and low salaries. These gaps were addressed through offering better course materials, equitable resource distribution, policy enforcement, assessment on the effectiveness of intervention, improved resource allocation and teacher quality, professional development and better classroom resources which helped the educational system of these continents to implement reforms to improve teaching methods and resources in Science and Math, incorporating student-centered teaching methods in science education, and increased government investment in Early Childhood Development (ECD) Van der Berg, S. et al. (2019). Furthermore, North and South America have moderate gaps but is actively addressed. These gaps are teacher absenteeism, accountability, and resource allocation Ganimian, A. J., & Murnane, R. J. (2016), uneven benefit in the voucher program Contreras, D., & Rau, T. (2012), and declining scores among lower-performing students National Assessment of Educational Progress (NAEP) (2019). Hence, these gaps are addressed through comprehensive teacher training programs Darling-Hammond, L. (2010), and increased funding for public education, teacher training programs, and standardized testing Vegas, E., & Petrow, J. (2008) which made significant strides in improving student outcomes Vegas, E., & Petrow, J. (2008). On the other hand, traditional measures of learning outcomes are not applicable in Antarctica since, in contrast to other continents, it lacks a

permanent population and a formal educational system. But the continent's distinct position as a center for scientific research presents an alternative viewpoint on learning and education. Numerous nations run research stations in Antarctica that offer chances for joint worldwide education and scientific advancement. Specialized training programs and field research are frequently conducted at these locations, advancing scientific knowledge worldwide. Tin et al. (2014) claim that Antarctica's research stations function as living labs that encourage hands-on learning and interdisciplinary cooperation between researchers and students from other disciplines. The best educational systems in the world may be found in Europe, with no reported gaps in the learning outcomes. Finland and Germany are two examples of countries that have different

but equally successful strategies for promoting high learning outcomes. According to Sahlberg (2011), student-centered learning, teacher quality, and equity are given priority in their educational system which lessens learning outcome gaps. These results are consistent with research by Hargreaves and Fullan (2012), which emphasizes the value of system-wide equity and teacher professionalism in attaining long-term educational success.

Table 2. Curriculum and Evaluation

This part displays the curriculum and evaluation in every continent of the world and the selected countries to represent the continent showing their study on learning outcomes emphasizing the gaps, ways to address the gaps and its implication to education.

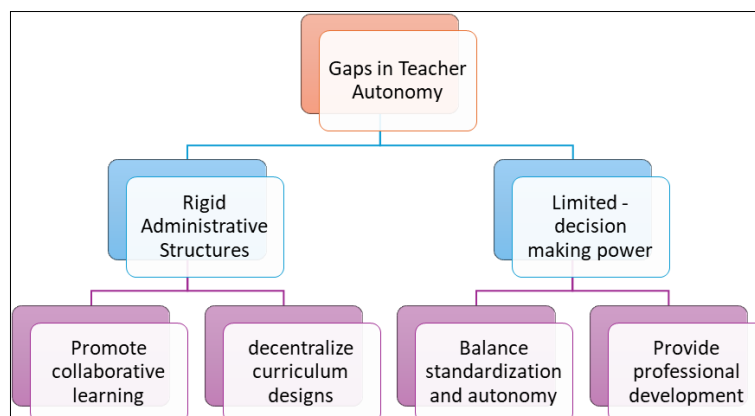


This table presented the gaps and ways to address them in curriculum and evaluation where Asia reports the highest gaps with antiquated teaching strategies and insufficient teacher preparation, and it is addressed through teacher professional development and new teaching materials which helps the educational system of the country align the curriculum with global educational standards (Bernardo, 2011). Also, Africa and South America also face challenges related to funding, inadequacies in teacher preparation, and inconsistent implementation and are addressed through the implementation of Outcomes-Based Education (OBE) and teachers' active support for curriculum evaluation which helped in the practical implementation techniques and stakeholder buy-in and flexible leadership and institutional support in curriculum reform (Jansen, 1998). On the other hand, North America has fewer gaps focused on fragmented and inconsistent curriculum tensions between local control and national coherence in curriculum development Levin, B. (2008). These moderate gaps were addressed through constant curriculum evaluation that helped shaped educational policies based on the diversity of learning (Tanner, D., & Tanner, L., 2007). However, Europe has lesser gaps which is about the tensions between local and

national curriculum standards and is addressed through the implementation of standardized testing to balance national curriculum requirements and teacher autonomy (Kelly, 2009). However, Antarctica does not have institutional evaluation frameworks, standard educational institutions, or curricula because the continent is mostly used for scientific research and because of its harsh environmental conditions, which make long-term living impractical, there is no educational infrastructure. Nonetheless, there are chances to increase public knowledge of environmental science, climate change, and global ecosystems through unofficial educational projects and outreach campaigns connected to Antarctic research. These initiatives are in line with research by Falk and Dierking (2010), who highlight the value of informal education in introducing the public to scientific concepts.

Table 3. Professional and Development

This part displays the professional autonomy in every continent of the world and the selected countries to represent the continent showing their study on learning outcomes emphasizing the gaps, ways to address the gaps and its implication to education.

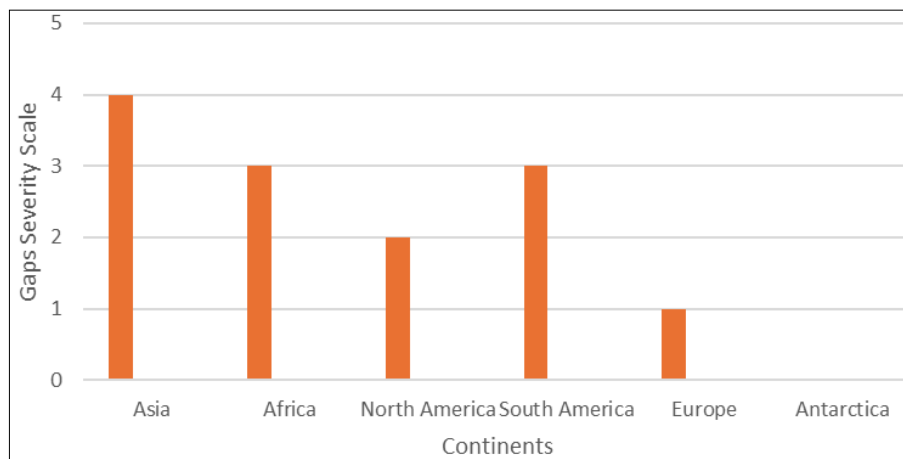


This table present the common gaps in teacher autonomy across the continents which revolve around rigid administrative structure and limited decision-making power which constrained the teachers in promoting good learning outcomes (Lessard, 1999). Furthermore, to address these gaps the countries promote collaborative learning, decentralize curriculum, balance standardization and autonomy and provide professional development (Gasperini, 2000). These results are consistent with more general research, like those of Hargreaves and Fullan (2012), which highlights the value of empowering and collaborating across systems to enhance teacher professionalism instead of relying solely on top orders. To promote genuine autonomy, policymakers must concentrate on striking a balance between responsibility and faith in the knowledge of educators, developing frameworks that allow educators to be creative while staying in line with more general educational goals. However, research on professional

autonomy in remote or harsh settings offers valuable perspectives pertinent to Antarctica. For example, Steiner and Reschke (2017) highlight the need of autonomy in settings with little standardized supervision, stressing the necessity of flexibility and self-directed learning. To accommodate the various demands of researchers and their families, if any, educators in Antarctica frequently create specialized teaching methods. The adaptability needed for these positions emphasizes how crucial autonomy is for encouraging creativity and sustaining involvement under certain limitations.

Table 4. Teacher Satisfaction

This part displays the teacher satisfaction in every continent of the world and the selected countries to represent the continent showing their study on learning outcomes emphasizing the gaps, ways to address the gaps and its implication to education.



The information shown in the teacher satisfaction provide a thorough understanding of the diverse elements influencing teacher motivation, retention, satisfaction, and the learning environment in various geographical areas. External factors including pay, working circumstances, and administrative assistance have a big impact on teacher satisfaction in Africa. For example, research from South Africa shows that chances for professional growth and supportive leadership are essential for raising teacher satisfaction. But problems like packed classrooms and a shortage of supplies continue to exist. Furthermore, low pay is a problem for teachers in nations like Ghana which further adds to their discontent. These results are consistent with Herzberg's Two-Factor Theory (1959), which postulates that enhancing hygienic elements like pay and working environment can lower. In North America, work-life balance, professional development, and administrative assistance all have a significant impact on teacher satisfaction According to research, low pay and a lack of administrative support are two factors that lead to high teacher turnover rates in the US, particularly in low-income communities. A little better circumstance exists in Canada where job satisfaction is increased by considerable teacher autonomy and access to professional development opportunities. There are still issues, though, particularly in rural places where teachers are isolated and have few resources, which causes them to

be dissatisfied (Kutsyuruba & Godden, 2016). Additionally, research indicates that teachers who believe they can affect student results report higher job satisfaction, underscoring the significance of teacher self-efficacy (Skaalvik & Skaalvik, 2011). Studies from nations like Argentina and Brazil in South America demonstrate that low pay, big class sizes, and a lack of resources are major causes of teacher discontent. Nonetheless, it was discovered that supportive leadership and the availability of professional development opportunities raised teacher satisfaction in both nations. These results are in line with those from Europe, especially in nations like Sweden and Germany where improving teacher satisfaction required a supportive workplace culture, chances for professional development, and strong school leadership (Schaarschmidt & Thiel, 2021; Wilmar & Håkansson, 2018). The information demonstrates the general need to enhance working conditions and give educators the resources they require to be successful. Due in large part to the temporary and informal character of its educational setup, there are no comprehensive studies available about teacher satisfaction in the region, even if Antarctica continues to be an outlier due to its unique educational environment. This lack of information highlights the necessity of context-specific methods for researching teacher motivation and satisfaction, especially in areas with weak formal educational systems. All things

considered, the results show a worldwide pattern: teacher satisfaction is closely related to extrinsic elements like pay, administrative assistance, and working circumstances as well as internal factors like professional development and teacher self-efficacy. Although the relative relevance of these issues varies by place, structural reforms addressing teacher resources, support, and professional growth opportunities are universally needed. According to the findings, improving teacher satisfaction leads to greater student learning results as well as increased retention.

Conclusion

The information shown emphasizes how important working circumstances, pay, chances for professional growth, and administrative assistance are in determining teacher satisfaction on a global scale. The results constantly show that to create a positive teaching environment, it is important to address both intrinsic and extrinsic elements across continents. To increase teacher satisfaction and retention, for instance, research from Africa (Mampane & Bouwer, 2011; Opoku-Asare & Siaw, 2015) highlights the need of strengthening leadership, cutting workload, and creating a positive school environment. This supports Herzberg's Two-Factor Theory (1959), which emphasizes that although motivators like professional development and career advancement result in higher job satisfaction, hygienic variables like pay and working circumstances are crucial in lowering discontent.

In North America, research from the United States (Ingersoll, 2001) and Canada (Kutsyuruba & Godden, 2016) indicates that administrative support and work-life balance are related to teacher satisfaction. According to Canadian research, professional development opportunities and a positive school climate are important factors in teacher retention, especially in rural locations. In a similar vein, it was discovered that elements including pay, work conditions, and administrative assistance were critical in lowering teacher turnover rates in the US. This is in line with the larger body of research on teacher retention, which emphasizes that enhancing job happiness is a calculated move to reduce teacher shortages and maintain the stability of the teaching profession.

Studies conducted in South America (Melo & Soares, 2018; Dourado & Pimenta, 2016) further highlight how crucial it is to improve working conditions and pay for teachers everywhere. Low salary, unfavorable working conditions, and a lack of resources were shown to be the main causes of teacher discontent in nations like Argentina and Brazil. However, studies indicate that these difficulties can be lessened with enhancements to the work environment, professional development, and administrative assistance. According to research conducted in Europe (Schaarschmidt & Thiel, 2021; Wilmar & Håkansson, 2018), teacher autonomy, effective leadership, and collegial relationships have a favorable impact on job satisfaction. These findings complement those findings. The overall conclusion is clear: enhancing teacher satisfaction requires a multifaceted approach that addresses both the material and emotional needs of educators while fostering a culture of support and growth.

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