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Technology-Assisted and In-Person Supervisory Challenges in Philippine Public Schools: A Comparative Analysis

Abstract

This study compared the challenges of 20 education supervisors in executing technology-assisted and in-person supervision. These supervisors oversee the curriculum articulation for over 200,000 Filipino learners in 85 Philippine public schools. Results showed that technology-assisted supervision (Mn=3.18; Md=3.26) outscored in-person supervision (Mn=2.88; Md=2.95), with the former mode of supervision obtaining higher perceived challenges than the latter. However, the Wilcoxon Signed Ranks Test found an insignificant difference in their degrees of challenges when grouped according to the mode of supervision used (p-value=.191>.05), indicating the need to further explore the supervisors' experiences to improve their supervision quality.

Keywords: *face-to-face, e-supervision, post-pandemic, nonparametric*

Introduction

After more than two years of full distance learning, the Philippines is now back to holding face-to-face classes. Filipino learners have finally returned to actual classrooms, from primary to tertiary levels. In a published report by Jalil (2022), it was estimated that 24,000 public basic education institutions in the country will undertake in-person classes for the school year 2022–2023. This momentous resumption is a redemption for the education sector after the physical school closures due to the upsurge of Corona Virus Disease in 2019 (COVID-19). However, the return of onsite classes may also pose challenges for both public and private schools as they recover from the impact of the pandemic, essentially from the issues concerning the extent of illiteracy among Filipino learners (Gomez, 2022). It is a separate concern that necessitates a proactive solution from all school stakeholders at the national and grassroots levels.

Undeniably, the pandemic caused unexpected challenges to the different key players in education (Tria in Aytaç, 2020). Parveen et al. (2022) stipulated that the COVID-19 pandemic presented several governance and oversight issues to school administrators. Aside from students, school administrators and other educational leaders, such as education supervisors, were not exempted from the sudden adjustments in the modality of instructional delivery. Brock et al. (2021) mentioned that supervision linked to instruction becomes more complicated with blended or fully online classes taking effect. It means that even supervisors confront challenges while performing their supervisory tasks and obligations. The education supervisors in this study are experts and leaders in the field responsible for developing, implementing, monitoring, and evaluating the curriculum. As teachers and students transitioned to distance learning, brought about by the rising cases and strict quarantine protocols, supervisors have also shifted to e-supervision or technology-assisted supervision, as alluded to in this research. Operationally speaking, technology-assisted supervision refers to using modern technology in most cases while performing supervisory tasks, whether synchronously or asynchronously. This integration of advanced technological tools is a possible solution to the challenge that comes with supervision in the academic setting (Chan & Ngai in Victorynie et al., 2022). Through internet-powered applications, computer software, mobile devices, and online platforms, which are only a few examples of these technological tools, supervision becomes limitless in some ways.

Technology-assisted supervision is an alternative for several supervisors across different fields and disciplines. As said earlier, another way to reduce supervision-related challenges in schools is to use modern technology, principally in

circumstances where in-person supervision is impossible to perform. In-person supervision does not always imply that technology is not employed. This supervision mode suggests that, in most circumstances, supervisors do their duties onsite rather than online. With in-person supervision, the Education Program Supervisors, simply referred to as education supervisors in this study, must be physically present more often now that the pandemic has ceased. It makes in-person supervision relevant again in the aftermath of the pandemic. In consonance with the Department of Education (DepEd) Order 34, series of 2022, basic education schools in the Philippines may only implement blended or full distance learning until the last day of October 2022. Beginning in November, all academic institutions, private or public, are required to implement five days a week of face-to-face classes.

Considering the movement of schools back to in-person classes, school authorities believe that situations will never be the same as they used to be (Aytaç, 2020). With the reopening of schools, supervisors face varying degrees of challenges and concerns, but this comparative research aimed to determine if these in-person challenges exhibit significant differences when contrasted to technology-assisted supervision. The data for technology-assisted supervision were derived from the previous study of Salva (2021), accentuating the supervisory experiences and struggles of education supervisors from two Philippine City Schools Divisions for the school year 2020–2021. Meanwhile, data for in-person supervision was collected after two years. Still, the participating cohort of supervisors came from similar division offices. This study's results can be utilised to enhance policies and supervisory practices of education supervisors in post-pandemic times.

Research Methodology

Research Background

This research utilised the quantitative method to compare the degree of supervisory challenges of the respondents. Two datasets were contrasted and analysed based on the two different modes of supervision that the respondents performed during and post-pandemic. The first set of data contained the supervisory challenges of the respondents when conducting technology-assisted supervision. It was derived from a previous study that was published in Academia Lasalliana Journal of Education and Humanities (ALJEH), in which the article aimed "to determine the prevailing degrees of challenges faced by program supervisors from

two school divisions [when conducting technology-assisted supervision]" (Salva, 2021, p. 13). Two years later, a new dataset was gathered. After holding distance learning due to the surge in COVID-19 cases and strict quarantine protocols, the DepEd started allowing face-to-face classes in private and public schools for the school year 2022–2023. Likewise, education supervisors have gradually shifted from technology-assisted to in-person supervision. While any technological infrastructure may still be used during in-person supervision, it should be emphasised that in-person supervision necessitates greater physical presence at the schools than technology-assisted supervision.

Sample

In total, 20 Education Program Supervisors, or shortly education supervisors, from two Philippine division offices in Cavite Province participated in this research. Each division has 10 supervisors who provide technical assistance to basic education institutions. Their main responsibility focuses on articulating a specific content area from one level to another. For additional context, Division A currently has 123,914 students attending one of the 49 combined public elementary, junior high, and senior high schools, while Division B has 82,752 students from 36 public elementary to senior high schools for the school year 2022–2023.

Instrument and Procedures

With regard to the research instrument, the 25-item questionnaire based on the DepEd Order Number 52, series of 2015, was similarly distributed to the respondents. This questionnaire itemised an education program supervisor's expected supervisory duties and responsibilities. It underscored several key areas related to curriculum development, implementation, monitoring, evaluation, and research. The research instrument was pivotal for the researchers to problematise supervision-related concerns and to continue improving the supervisory practices of the respondents in the post-pandemic times.

Before answering the questionnaire, the researchers obtained the respondents' consent and the endorsement of other education authorities in both division offices. Aside from this, pseudonyms were created to conceal the affiliated division and identity of the education supervisors. Additionally, even though participation in this research is entirely voluntary, the researchers highlight the right of the respondents to withdraw at any time without explanation or impending penalty.

Data Analysis

For data analysis, the datasets were treated through the Wilcoxon Signed Ranks Test, a nonparametric test that analysed the difference between the responses of related samples in conducting two modes of supervision. The Wilcoxon Signed Ranks Test aided the researchers in deciding whether the null hypothesis, which states that there is no significant difference between the degrees of supervisory challenges experienced by the respondents based on the mode of supervision used, will be retained or rejected.

Preceding this, descriptive statistics, such as ranking, mean, and median, were used to measure the central tendency and identify the order of each expected supervisory duty and responsibility. More so, the datasets were verbally interpreted using this Likert scale: 1.00–1.80 (not challenging at all [NC]); 1.81–2.60 (slightly challenging [SC]); 2.61–3.40 (moderately challenging [MC]); 3.41–4.20 (very challenging [VC]); and 4.21–5.00 (extremely challenging [EC]).

Results and Discussion

The duties and responsibilities enumerated below are shortened based on the latest job description for education program supervisors, which follows the adoption of DepEd Order No. 52, Series of 2015. Whereas the term 'M & E' stands for monitoring and evaluation, 'PSDS' means Public Schools District Supervisor, 'Mn' is for the mean, while 'VI' is the verbal interpretation.

Table 1 Overall Degree of In-Person Supervisory Challenges of Education Program Supervisors

In-Person Supervisory Duties and Responsibilities	Mn	VI	Rank
1. Conducting monitoring and evaluation and submitting recommendations towards enhancing curriculum management and delivery.	2.85	MC	15
2. Developing together with School M & E the mechanisms, processes and tools for monitoring, curriculum implementation and articulation.	3.20	MC	5.5
3. Submitting (together with School M & E) progress monitoring report of curriculum implementation and management.	2.90	MC	13.5
4. Submitting (together with School M & E) evaluation results of curriculum implementation and submitting policy recommendations.	3.05	MC	8
5. Conducting evaluation of instructional supervision plan implementation and submitting policy recommendations.	3.20	MC	5.5

In-Person Supervisory Duties and Responsibilities	Mn	VI	Rank
6. Developing and implementing advocacy programs and materials.	3.05	MC	8
7. Developing and submitting concept papers and project designs and proposals for curriculum enhancement and innovation.	3.30	MC	3.5
8. Developing training designs, modules, and materials to localise, indigenise, and contextualise competencies in the curriculum.	2.65	MC	18
9. Developing (together with M & E) processes and tools for monitoring the localised and indigenised curriculum implementation.	2.95	MC	11
10. Submitting reports on curriculum innovations and localisation.	2.75	MC	16
11. Conducting research on curriculum localisation.	3.40	MC	2
12. Conducting evaluation and submitting recommendations on localised curriculum delivery or instructional strategies.	2.95	MC	11
13. Recommending publication of effective practices on learning delivery/ instructional innovations for learning and adoption.	2.95	MC	11
14. Leading or working as a team member to develop general and local learning resource materials in the assigned subject area.	2.30	SC	25
15. Leading or working as a member to evaluate/quality assure general/ local learning materials.	2.50	SC	21.5
16. Gathering result of assessment reports and analysing performance gaps.	2.55	SC	19.5
17. Drafting policy recommendations related to improving learning outcome.	3.30	MC	3.5
18. Monitoring of curricular support activities and submitting reports.	2.55	SC	19.5
19. Drafting policy recommendations on curricular support activities.	3.55	VC	1
20. Conducting action research on curriculum implementation, needs and issues, appropriate interventions on assigned learning area.	3.05	MC	8
21. Assessing the situation and analysing the needs of assigned schools.	2.70	MC	17
22. Coordinating with the PSDS to arrive at a technical assistance plan.	2.45	SC	23.5
23. Coaching the school in implementing interventions related to curriculum implementation and instructional delivery.	2.50	SC	21.5
24. Submitting periodic reports on the progress of technical assistance.	2.45	SC	23.5
25. Submitting the results of technical assistance and recommendations.	2.90	MC	13.5
Total Mean	**2.88**	**MC**	

As shown in Table 1, the respondents' total degree of in-person supervisory challenges from both division offices is 2.88 or moderately challenging. Explicitly, the education supervisors' verbal interpretation and mean scores for 18 out of 25 duties and responsibilities ranged from 2.61 to 3.40. Nevertheless, six of the 25 items gained low mean scores, from 1.81 to 2.60. It suggests that the mentioned

tasks are slightly challenging for the respondents to perform again in a face-to-face setting. The item "Leading or working as a team member to develop general and local learning resource materials in the assigned subject area" has the lowest mean score of 2.30, whereas "Drafting policy recommendations on curricular support activities" achieved the highest mean score of 3.55 or was very challenging.

In light of these findings, it can be grasped that the effects of the pandemic do not cease to confound schools. In-person supervision poses a certain difficulty level, evidencing how that struggles continue for the education supervisors. Rusdiana et al. (2020) state that the recent global health crisis may be a fascinating challenge for supervisors and the rest of those working in academic institutions, apart from being a known disaster. Although the findings in Table 1 only reveal a middling degree of supervisory challenges, knowing their sentiments as key players in education is still essential. These sentiments of leaders are valuable in developing mechanisms to thrive in the new normal of education (Aytaç, 2020), especially in writing recommendations about curricular support activities while transitioning from online to onsite supervision. To add, Aytaç primarily noted the vitality of developing crisis management skills and leadership in navigating technological tools for educational leaders. This new set of abilities will represent a significant shift in how supervisors approach their supervisory duties and responsibilities in the new normal. On the other hand, despite the notion that the principle of change is an integral part of educational supervision (Suleiman et al., 2020), it is a must to consistently evaluate the new adjustments that need to be made, as well as the possible apprehensions they have had in the last years. Hence, it is crucial to understand how their past experiences pertaining to technology-assisted supervision and present practices, referring to in-person supervision, might contribute to the challenges that come with their duties and responsibilities as experts who provide schools with technical support.

Table 2. Degrees of Supervisory Challenge According to the Conducted Mode of Supervision

	N	Mn	VI	Md	Standard Deviation
1. Technology-Assisted Supervision	20	3.18	MC	3.26	.59507
2. In-Person Supervision	20	2.88	MC	2.95	.65186
		3.03	**MC**		

Table 2 juxtaposes the calculated mean scores of the respondents as they assess the challenges in executing their supervisory duties and responsibilities. Their assessments were conducted in different periods and under two modes of

supervision. The first assessment was made in 2020, with education supervisors relying mostly on technology and virtual platforms to monitor their supervisees. As reported in the study of Salva (2021), this supervision mode yielded a general mean of 3.18 and a median of 3.26 (SD=.59507) for the degrees of the challenge of the respondents.

In 2022, the respondents from the same division offices were requested to reassess their degrees of supervisory challenges. This time, the respondents considered their experiences in providing onsite supervision. Akin to a "clear need for more empirical research on the effects of COVID-19 on schools and other institutions [as the health situation worsens]" (McLeod & Dulsky, 2021, p. 4), it is likewise fundamental for scholars to reassess the repercussions of the pandemic even after its two-year peak. By doing this, the present supervision-related issues and complexities can be alleviated. It will make education supervisors more effective and efficient, irrespective of their affiliation or division office. Subsequently, in-person supervision ensured mean and median scores of 2.88 and 2.95 (SD=.65186), respectively. These mean and median scores are lower than technology-assisted supervision, inferring that supervision using technological infrastructures presents additional challenges to education supervisors. Agreeing with this result, Renninger (Brock et al., 2021) insinuated that virtually-driven supervision involves comparable abilities as face-to-face supervision. The difference is that the former mode of supervision goes along with little more considerations than the latter. Nevertheless, both modes of supervision acquired an equal rating of moderately challenging.

Table 3. Test Statistics Using Wilcoxon Signed Ranks Test According to the Mode of Supervision

	Mean Scores
Z	-1.309[b]
p-value (2-tailed)	.191

The researchers employed the Wilcoxon Signed Ranks Test in examining the significance of the difference between technology-assisted and in-person supervision. Through this nonparametric procedure, it was established in Table 3 that the degrees of challenge of the education supervisors did not produce a substantial difference. The .191 p-value exceeds the .05 significance level ($p>.05$), leading to the retention of the null hypothesis. It implies that despite the mode of supervision being performed, the duties and responsibilities of the supervisors remain correspondingly challenging for all the respondents.

Regarding such an interpretation of findings, Cahapay (Aytaç, 2020) affirmed the call to think about the evolving prospects and struggles in the new normal of education. The preceding citation emphasises the necessity for consideration of the educational system, mainly in post-pandemic times. Truthfully, one of the ways for the education sector to recover is to assess all the changes that have happened over the last months and years. This assessment will allow school leaders, such as education supervisors, to move forward slowly as they return to onsite supervision. According to Glaude (Bilich, 2021), gradual pacing is integral for those who return to face-to-face reporting. However, the researchers suppose this must be preceded by a thorough review and careful crisis analysis of those with supervisory or teaching positions.

Conclusion and Implication

Education supervisors who technically provide support may need assistance too, and this applies to both modes of supervision that were compared in this research. Despite the findings suggesting that in-person supervision is less complicated than technologically-assisted supervision, the degrees for the two modes of supervision still do not make a substantial difference. Both modes gave in-between levels of supervisory challenges, and the supervisors' assessments that were completed at different times led to highly comparable conclusions. It indicates that the supervisory duties and responsibilities of education supervisors can be challenging, whether or not there is any technological infrastructure, virtual tool, or digital platform present. With regard to this conclusive statement, the challenges confronting education supervisors in monitoring the articulation of the curriculum must be extensively targeted vis-a-vis the associated opportunities and threats. It will guarantee quality instructional preparation and curriculum delivery in several schools under the supervisors' face-to-face observation. As it is known, a mode of supervision that is time-saving, economical, and free from interference may lead to better outcomes and result in more stable well-being for those being supervised. Furthermore, in connection with the pertinent results of this study, curriculum-related policy recommendations must be given the utmost priority to ensure seamless supervision and, more so, the breadth and depth of teaching and learning experiences. Likewise, consistent needs analyses must be done to further investigate the variables contributing to supervisors' middling degree of challenges. The said analyses will pave the way for the supervisors' technical knowledge, managerial abilities, and interpersonal skills to be adaptive in transitioning back to in-person supervision.

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