Volunteer Blended Coaching with Social Media and Telecollaboration Tools in Developing Teachers' Action Research Skills

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Abstract. Although public school teachers considered action research (AR) beneficial to teaching and professional development, data showed that teachers have less access to AR coaching. This research reports the impact of volunteer blended coaching among University of the Philippines Cebu Pahinungod (Volunteerism) professors who coached 14 public school teachers from various provinces in the Philippines in conducting AR. It used the IPARD Model in coaching. The Investigation Stage showed that teachers preferred blended due to COVID-19 virus anxiety, the resumption of face-to-face (FTF) classes, convenience, and island storms. In the Planning and Action Stages, we conducted a Blended Coaching Program for four months with these features: (1) FTF to start coaching the teachers on writing the research questions and using the proper methodology; and (2) Online multimodal platforms in social media like Facebook Messenger while collaborating with Google Docs for immediate feedback and revisions. In the Demonstration Stage, external district evaluators approved the teachers' AR and the researchers presented their findings in local and international conferences. Findings from the participants' anonymous evaluation and interviews showed the following: (1) Blended coaching developed their competence and confidence conducting AR; (2) The use of social networks and telecollaboration tools promoted convenience and flexibility.

Keywords: Blended Coaching, Social Media, Action Research

1   INTRODUCTION

As UNESCO's Sustainable Development Goals (SDGs) stress the importance of excellent education in achieving global development, it becomes clear that providing educators with research training is essential for promoting transformational learning experiences. When endowed with research training, teachers can become drivers of sustainable development by infusing their lessons with evidence-based practices[1], interdisciplinary perspectives [2], and a genuine dedication to the well-being of present and future societies [3].

In the Philippines, teachers have a positive attitude toward research and a high level of receptivity and interest in it [4], [5]. Integrating research skills into the pedagogical landscape can permit educators to gain access to evidence-based methodologies However, issues like limited research knowledge and skills, packed teaching schedules, difficulty understanding the framework of published research, and difficulty contextualizing research findings for classroom use limited such involvement [6]–[8]. Furthermore, with thousands of islands spanning vast distances and inherent weather complications leading to typhoon disasters, it is difficult for conventional coaching models to reach every region of the country.

Addressing these challenges, this research aimed to design a blended coaching (BC) for teachers in conducting AR which combined in-person coaching with technology-enabled virtual support. It holds great promise for geographically challenging countries such as the Philippines [9], [10] for it overcomes geographical obstacles by merging online platforms, video conferencing, and asynchronous communication tools, allowing volunteer coaches to communicate with educators in even the most distant regions [11], [12]. In this study, the researchers were volunteers from the University of the Philippines Cebu Ugnayan ng Pahinungod who did not receive honorarium for coaching. Furthermore, this research aimed to determine the impact on how BC developed the action research skills of the public-school teachers.

2   LITERATURE REVIEW

Blended Coaching (BC) combines multiple approaches based on both the needs of the trainees and the expertise of the coaches [13]. BC can cater to different modalities, which makes it more scalable and cost-effective since it focuses significantly on self-directed learning across in-person and digital interactions [14]–[16]. In this context, expanding coaching into the digital realm resolves the resource challenges associated with implementing a sustainable coaching model. This puts leverage in play in the post-pandemic era since educators have become accustomed to using online resources to access and support professional development, such as conducting action research[17].

Blended coaching helps teachers take responsibility for their learning and improve their action research abilities via active involvement, collaboration, and reflection [18], [19]. It gives educators personalized advice and feedback [15]. This can aid in the development and application of action research skills by teachers in their respective contexts. With BC, digital and in-person sessions can be arranged according to necessity, with a focus on context across the coaching cycle.

2.1   The Role of Action Research in Teacher Professional Development

Action research empowers educators to improve their approaches to teaching by recognizing challenges within their specific classrooms and implementing strategic interventions [20], [21]. This therefore empowers educators to take charge of their professional development and make well-informed decisions based on their own observations and data analysis.

In the Philippines, teachers have been implementing various interventions to address learning challenges in reading, mathematics, and classroom management [22]–[24]. However, it was revealed in [23] that teachers' moderate levels of difficulty in doing action research showed that several areas, such as statistics, data organization, literature searching, and report writing, require professional development programs. In general, Filipino educators have a positive perception of the benefits and significance of action research. The described positive perception can play an important role in nurturing a research-oriented culture among educators and facilitating their participation in action research [25], [26]. Furthermore, the possibility of career advancement and monetary incentives can also increase instructors' motivation to actively participate in research initiatives.

2.2   Blended Coaching as Professional Development Approach

Blended coaching has emerged as an effective method for enhancing a teacher's research skills.[27] A study examined teacher perceptions of professional development in a district that utilized a blended coaching model. The findings suggest that integrated mentoring can improve teachers' perceptions of professional development and facilitate their ongoing learning and development, particularly in the initial part of the research conceptualization. Concerning this, another study [28] indicated that blended coaching can improve instructors' efficacy and facilitate the growth of teacher's skills and competencies. The two studies showed a significant similarity in benefit between the trainer and the trainee; both showed positive results in skill improvement.

In a separate study, [29], [30] it was found that mentorship is highly effective in preparing trainees for the end goal in a gradual manner. Specifically, it was found that coaching during training is significant and effective as it scaffolds the trainees to acquire the skill through demonstration, guided participation, and active engagement. It also highlights the capacity of blended coaching to cultivate a culture of continuous learning and teacher creativity, which can contribute to the growth of teachers' skills and competencies.

2.3   Social Media Integration for Professional Learning

In the context of professional development, social media platforms offer teachers a practical and adaptable method for engaging in ongoing learning experiences [31]. Facebook (FB) is the most popular social media platform in the Philippines, with 96.2% of 16-to-64-year-old internet consumers using it monthly [32]–[34]. It is followed by Messenger, a messaging application that is frequently used alongside Facebook [35]–[37].

When modular distance learning was implemented in the country, most educators used Facebook and Messenger to communicate with students and fellow teachers, given their accessibility and ability to work well even in low bandwidth situations. Due to its ease of use, individuals prefer the platform for academic consultations over email

and mobile phones [38]. This phenomenon supports the argument made by the proponent that social media can be utilized to create adaptable collaborative learning spaces for teacher professional development[39]. Similarly, another study mentioned the platform's features in file sharing and storage, synchronous and asynchronous interaction, monitoring outputs, and providing feedback. It also suggests that Facebook can be utilized successfully for educational purposes and remote teaching [40]–[42]. And just like any platform in this current time, Facebook's educational features may be enhanced if they are utilized in meaningful ways [43], [44].

3   BLENDED COACHING PROJECT

In this project, we conducted BC to five different public schools with 18 teachers in writing their AR proposals. These schools were located in various provinces in the Philippines as shown in Figure 1. We used FTF sessions in the first two meetings in assisting the teachers' AR proposals: refining research questions, reviewing literature, and choosing relevant methodology. Each school had a different schedule within 2021-2022 during the pandemic and lockdowns. The sessions were based on the teachers availability and planned date AR implementation. The coaching lasted for an average of four months.
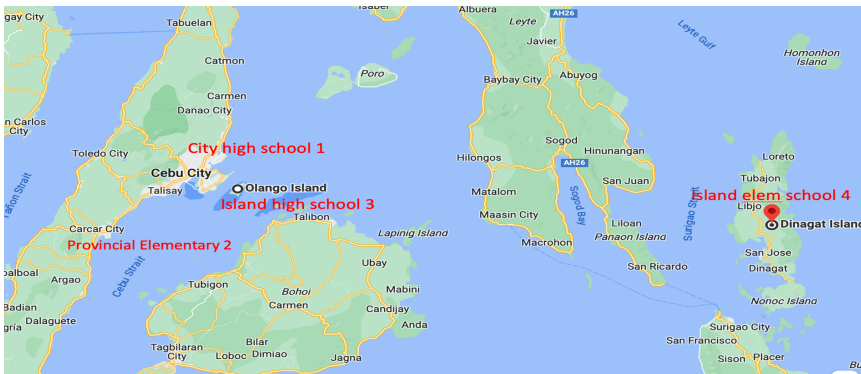

Fig. 1. Location map of teacher researchers

The following are the AR topics of the five schools: School 1 on Using Instagram to Improve Creative Writing. School 2 on Teacher-Made Youtube Videos for Reading. School 3 on Teacher Created Videos for Pedagogical Enhancement. School 4 on Localized Big Books for Phonemic Awareness.

4   METHODOLOGY

This study utilized the case study design which used qualitative data gathering procedures. It used anonymous post-evaluation surveys and semi-structured interviews

to determine to what extent BC developed the public-school teachers' AR skills. It also used independent raters to evaluate the teachers' AR proposals. This method promoted an objective assessment if the AR passed the district standards. The raters were the teachers respective district supervisors or academic heads.

This research also used the IPARD Model (Investigation, Preparation, Action, Reflection, and Demonstration) to show the process of analyzing the participants' needs, planning and implementing the coaching, and assessing the teachers' AR skills. For research ethics, all the teacher-participants and their students provided their consent to be participants of the study. Each teacher had their own Students' Assent and Parents' Consent as part of the Preparation Stage.

5   RESULTS AND DISCUSSION

5.1   The Blended Coaching Framework for AR Coaching
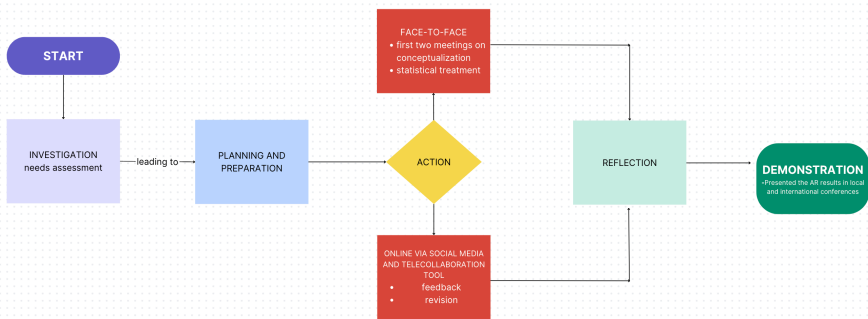
Fig. 2. Blended Coaching Framework for Enhancing Public Teachers' AR Skills

The Blended Coaching Project for AR followed this process, as shown in Figure 1. (1) Conduct Needs Analysis , (2) Design the Coaching Program using Social Networks and Telecollaboration apps; (3) Conduct blended coaching sessions; (4) Provide feedback and support; and (5) Demonstrate results. The Blended Telecollaboration Project for AR followed this process, as shown in Figure 1. (1) Conduct a needs analysis; (2) Design the Coaching Program using Social Networks and Telecollaboration apps; (3) Conduct blended coaching sessions; (4) Provide feedback and support; and (5) Demonstrate results.

The results from the needs analysis showed that public school teachers are required to do AR but face challenges such as a lack of training, inconvenience from traveling from one place to another, and the absence of a direct coach for consultation. These adhere to the claims on the levels of difficulty teachers have to deal with when conducting AR[23]. The contexts and preferences of the teachers from different locations were prioritized in the design of the coaching program. It was found out that

they need face-to-face sessions for starting the topic, formulating research questions, outlining the planned methodology, and checking the statistics as well. Furthermore, it was found out that for synchronous sessions, teachers chose Facebook and Messenger because of their low bandwidth and accessibility features. For sessions like this, it was also done simultaneously using Google Docs to provide real-time feedback, and for asynchronous sessions, especially when schedules don't agree all the time, comments and suggestions were left on the platform for everyone to see and work on in their free time. This framework for AR coaching provided participants with a means to pursue their research endeavors, corroborating the assertion that a customized coaching program provides a powerful framework for fostering professional development, ultimately resulting in the enhancement of instructional methodologies[45].

5.2   Advantages of Online Coaching

According to the study's findings, participants agreed on the ease and flexibility afforded by online education through social networks. The qualitative data revealed interesting insights into the participants' thoughts on how this coaching method aided their professional development.
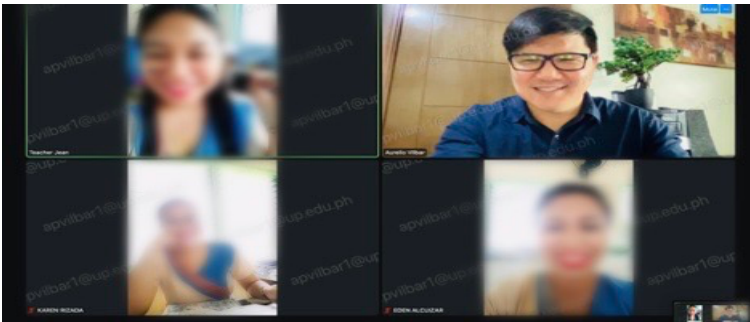

Fig. 3. Screenshot taken during an online consultation

Convenience and Eliminating Travel. One of the recurring themes that emerged from the participants' statements was the elimination of the need to physically commute for coaching sessions. One participant said, "We don't need to cross the island and travel." This sentiment underscores the convenience of online coaching, which saves time and resources that would have been spent on commuting. This convenience aspect is in line with the current trend of remote work and learning, where digital platforms have become instrumental in connecting individuals from disparate locations [16].

Balancing Priorities. The participants also indicated that online coaching enabled them to balance their professional responsibilities without missing classes or school-based events. The statement "I can still attend my regular FTF classes and then join the online meeting later" exemplifies how online coaching offers a way for teachers to engage in their ongoing professional development without compromising their

classroom responsibilities. This balance is crucial for teachers who need to juggle multiple commitments throughout their workday.

Flexibility in Scheduling. The participants also highlighted the flexibility in scheduling that online coaching offers. The statement "Most trainings require work hours, but with blended coaching, I can arrange a working schedule with our coach" underscores how traditional in-person training sessions often conflict with teachers' work hours, potentially causing disruption. In contrast, the flexibility of blended coaching allows participants to coordinate coaching sessions at times that suit their schedules, thereby ensuring minimal disruption to their regular work commitments.

Asynchronous Consultations. The participants acknowledged that online consultations allowed for asynchronous learning, a sentiment expressed through the statement, "As a teacher, having online consultations is a big help because in this way, I can work asynchronously and I can do it after work hours." This asynchronous nature of online coaching accommodates the participants' varied schedules and preferences, enabling them to engage in learning and reflection outside of their regular working hours.
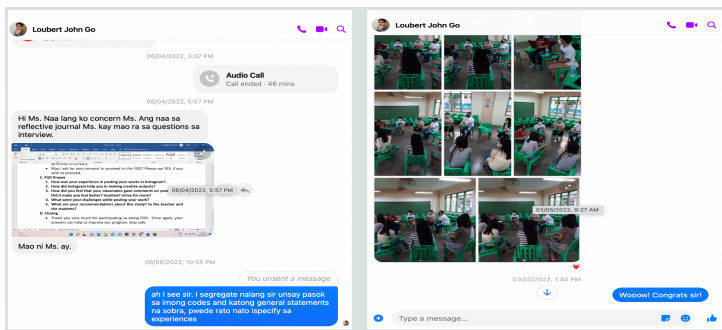

Fig. 4. Asynchronous Sessions

5.3 Advantages of Face-to-Face Coaching

The study's findings shed light on the socio-economic support and task focus that face-to-face coaching provided during the early stages of the research making process. Through participant interviews, a thorough understanding of how in-person encounters contributed to their coaching experience, creating a sense of sincerity, social connection, and increased task engagement.

Fig. 5. Face-to-face session during statistical analysis consultation

Socio-Emotional Support and Sincerity. The participants shared the experience of obtaining social and emotional support during in-person coaching sessions. The statement that "I can feel the sincerity of the coaches and my colleagues… because I can see them, unlike online" exemplifies how the presence of visual cues in in-person encounters promotes the perception of genuineness and sincerity in interpersonal exchanges. This means that nonverbal clues, such as facial expressions and body language, are critical in establishing trust and creating a supportive environment in the context of coaching. Additionally, the use of visual cues for gauging sincerity results in a stronger sense of trust and a more supportive environment [46]. The participants recognized the distinct benefit of being able to attend both in-person classes and virtual meetings. This blended approach highlights the potential of having this coaching methodology to capitalize on the benefits of both physical and digital learning environments.

Overcoming Initial Hurdles. The assertion that "the challenging aspect often lies in the beginning of the research conceptualization" emphasizes the commonly encountered challenge during the earliest phases of research. This posits that the support offered through in-person mentorship is a vital asset in overcoming these first challenges. The notion of a head start entails that the preliminary mentoring sessions provided teachers with a sense of empowerment and reassurance, so setting them on a trajectory towards success right from the first. This highlights the enhancement of confidence is of utmost importance, as it has the potential to impact the level of commitment exhibited by trainees towards the research process and their capacity to overcome challenges[47].

5.4   Insights and Implications

This study discusses how four schools made progress in their action research skills through blended coaching and social networks. Each case presents an individual account of how the coaching intervention influenced their outputs, resulting in diverse contributions to the field of education.

Case 1: City High School - Using Instagram to Improve Creative Writing. The action research at City High School sought to improve the creative writing skills of the students by integrating Instagram to introduce a digital environment receptive to collaboration and feedback. The findings revealed a significant improvement in creative writing skills, student engagement, and efficient feedback systems, highlighting the effectiveness of Instagram as a complementary educational portfolio. Further research could explore the potential long-term advantages and possible applications of these procedures in diverse educational environments. Their successful research received not only school approbation, but also international acclaim. The team's presentation at an international conference and the publication of their article. attest to the quality of their work and the effectiveness of the intervention. This example shows how the blended coaching method enabled the researchers not only to improve their action research skills but also to communicate their findings on a worldwide scale.

Case 2: Provincial Elementary School – Teacher-Made Youtube Videos for Reading. The researchers developed teacher-made videos and hosted them in Youtube to help elementary students improve their reading comprehension. This action research demonstrated substantial post-intervention improvements in reading comprehension. The use of these videos in an innovative manner not only served to reinforce the development of reading skills but also served as a testament to the adaptability and inclusivity of contemporary educational resources. Their research was approved and implemented on a school-wide level in 2022. This case demonstrates how blended coaching can enable educators to create interventions that influence their school's curriculum and policy.

Case 3: Coastal High School - Teacher Created Videos for Pedagogical Enhancement. Action research at Coastal High School aimed to improve pedagogy and student learning through teacher-created videos, with the assistance of student volunteers from the Masters Program. Their presentation at a research colloquium demonstrated that the research produced positive results. The presentation at a research colloquium indicates effective dissemination at a local level, indicating that the blended coaching program facilitated effective cascading of their work within their immediate academic community.

Case 4: Island Elementary School - Localized Big Books for Phonemic Awareness. Researchers from Island Elementary School intended to create localized big books for phonemic awareness. While they were able to make substantial progress in their work, they were unable to complete the manuscript due to setbacks. Lack of access to essential resources for big books creation hinder the intervention. Moreover, administrative hurdles and balancing research with teaching posed challenges. This case demonstrates the importance of recognizing that not all action research projects will produce the same results and that obstacles may arise along the way.

In terms of pace, the research topics and interventions differ, reflecting the diverse contexts of their schools. Also, the outcomes of the cases are varied. City High School and Mountain Elementary School experienced successful interventions that were recognized and endorsed both internally and externally. Coastal High School attained local success through research colloquium presentations. Despite obstacles, Island Elementary School initiated their action research proposal.

The coaching intervention encouraged the dissemination of findings through presentations at diverse forums, such as international conferences, research colloquia, and departmental approvals. In addition, each case demonstrates the positive influence of action research interventions on educational practices, whether through improved pedagogy, improved student performance, or institutionalization of interventions. While all cases demonstrate the potential of blended coaching, the outcomes reveal that challenges and successes can manifest differently in each setting.

6   CONCLUSION

This research proved the potential of using blended coaching as an alternative training model for teachers in this post-Covid context. The synergy between face-to-face sessions and online/offline coaching successfully helped the teachers complete their AR and present them at local and international conferences. According to the teacher-participants, the online synchronous and asynchronous sessions promoted flexibility in scheduling consultations and convenience. They did not travel from their islands to the main city to have the in-person consultation. The teachers could still continue their regular FTF teaching while having the online consultation after work, thereby making the coaching more accessible.

On the other hand, the FTF sessions provided the social-emotional support and sincerity that were the essential needs of an isolated and lonesome online learning environment [48]. The in-person sessions provided instant feedback whenever teachers experienced mental blocks or demotivation in searching for related literature and methodologies. Given the noteworthy achievements and recognition conferred upon the mentioned public schools, it is imperative to acknowledge that the scope of this study was limited to these educational institutions, mostly due to the availability of volunteer coaches. Furthermore, this study focused on the application rather than technical aspects of the online tools used.

Even so, recognizing that the BC precedent helped in such cases serves as promising data for further study. To enhance the efficacy of blended coaching (BC), it is recommended to incorporate a comparative analysis of BC with other coaching models and to employ a more equitable integration of qualitative and quantitative data to enhance the overall validity of the findings. It is further recommended to explore a larger and more diverse sample size and incorporate external validation. For the purpose of machine learning-based effectiveness prediction, the research can use data from coaching sessions to make computational integration possible. Finally, the development

of customized online platforms specifically designed for blended coaching has the potential to enhance the success of the model.

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