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The Impact of Insufficient Action Research Skills on Mathematics Teachers Ability to Diagnose Learner Challenges in Eswatini

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Abstract
The significance of Action Research in helping mathematics teachers in empowering mathematics teachers in addressing learners' problems in mathematics has been overlooked by teachers' colleges for a long time resulting in low pass rate by learners in mathematics. Despite the research methodology being one of the compulsory module in teacher education, teachers' colleges seem to concentrate on conventional research and do little to capacitate students with skills to carry out Action Research and this leaves mathematics teachers without skills to diagnose learners' challenges in the mathematics classroom. The purpose of this study therefore is to investigate the impact of limited action research skills on mathematics teachers to address learner challenges. This study uses a survey involving thirty randomly selected primary school teachers in the four regions of Eswatini and the data was collected using questionnaires and interviews. The research paper uses a mixed approach in data presentation and analysis. Results reveal that 90% of primary school mathematics teachers do not know Action Research. The 10% that indicated that they knew action research, however, they were not able to give the action research cycles and all the teachers were never taught on how to carry out an action research at college. The study concludes that mathematics teachers do not use Action Research as a tool for solving problems in mathematics. The research paper recommends that the practice of Action Research become compulsory in teacher education. It also recommends that the National Curriculum Unit holds workshops to empower mathematics teachers with skills in Action Research

Introduction

In many developing nations, including Eswatini, student performance in mathematics remains a persistent concern for educational stakeholders. Despite ongoing efforts, many educators struggle to implement effective interventions to address the deep-rooted challenges learners face. Research suggests that pedagogical effectiveness in the mathematics classroom requires more than just robust subject matter knowledge; it necessitates a teacher's ability to systematically identify, analyze, and respond to specific learner difficulties.

Action Research (AR) has been highlighted by scholars as a transformative framework that provides teachers with the tools to diagnose these learning gaps and refine instructional

practices (Mertler, 2020). This is particularly critical given that teacher quality is recognized as one of the most significant school-based predictors of student success, especially in quantitative subjects (Darling-Hammond, 2017). By fostering a culture of inquiry and evidence-based improvement, AR equips educators with the diagnostic skills necessary to bridge the gap between teaching and understanding (Mills, 2017). However, despite the documented potential of Action Research to revitalize mathematics education.

Literature Review

AR is insufficiently embedded in teacher training programs in many African contexts, including Eswatini, resulting in mathematics teachers who lack in diagnostic competencies required to identify and address learner challenges (Dlamini, 2020). This gap does not only constrains teachers' ability to diagnose the challenges faced by the learners but also contributes to the teachers' lack of professional growth and perpetrate low pass rates in mathematics. Advocates for strengthening AR in the teachers' college curriculum (Al-Mahdi 2019; Bruns 2023) say that AR can significantly strengthen teachers' instructional effectiveness. Also, Taits (1993) is of the opinion that AR, is a teacher-centred and problem-solving approach, which offers mathematics teachers a powerful diagnosis tool for learning challenges and improving instructional practices. According to Schön (1983), AR is a tool that enables teachers to constantly improve their teaching practices and make their work more professional. In other words, it is a means to empower teachers to reflect on their own professional experience in the light of a scientifically based discourse, as it was described ideally with the model "reflective practitioner", (p17).

In Eswatini teachers' training often does not include sustained, practiced AR training, hence teachers leave colleges with little or limited capability to design and complete teacher-led cycles of inquiry. Teacher education which lack actionable inquiry training, teachers are less likely to use reflective cycles to diagnose and address learners' difficulties in subjects such as mathematics. Several studies linking teacher preparation and later classroom inquiry show that explicit, scaffolding AR experiences increases teacher capacity. Phillips and Carr (2010) say action research for teachers is the starting point for a journey to becoming a teacher living in the research life to simultaneously improve teaching practice, learners' outcomes, and systems of schooling to be more just and equitable for all learners.

In pursuance of the constructivist philosophy on teacher education, AR can enable teachers to pursue their own questions, build upon their own knowledge base, and interact within a social environment as reflective practitioners (Rock and Levin, 2002; Ross, 1987). By allowing teachers to critically reflect on their process of becoming a teacher during training, action research helps them develop their own voices and perspectives about teaching. The emphasis put on conventional method of research on the expense of action research by the training colleges does not make classroom teachers to reclaim their role as decision makers and knowledge generators. López-Gopar (2014), contends that teacher education programs should seek, value, and integrate knowledge generated by teachers through AR in their local contexts into the coursework and requirements of their programs. Teachers training colleges should make sure teachers experience the productions of knowledge and learn to value the meaning they construct for themselves if we hope to see classroom teachers position themselves as problem posers, decision makers, and generators of knowledge. Also, bring in some form of comparing national and regional but do not incorporate new researchers

Theoretical Framework

This study is guided by Schön's Reflective Practice Theory, which argues that professionals improve their practice through deliberate and continuous reflection (Schön, 1983). In teaching, reflection takes two main forms: reflection-in-action**,** which occurs during instruction as teachers interpret learners' responses and adjust their strategies, and reflection-on-action**,** which occurs after teaching as they analyse what worked, what did not, and why (Schön, 1987). In mathematics classrooms, these reflective processes are central to identifying misconceptions and diagnosing learners' difficulties.

Action Research closely aligns with this theory because it structures reflection through cycles of problem identification, planning, acting, observing, and reflecting (Lewin, 1946; Kemmis & McTaggart, 2005). Teachers with strong Action Research skills are therefore more capable of engaging in systematic reflection, gathering evidence from their classrooms, and accurately diagnosing the causes of learners' mathematical challenges. However, when teachers lack AR skills, their reflective capacity is weakened. They may struggle to notice misconceptions during lessons or fail to analyse learner errors after teaching, leading to poor diagnostic practices.

Thus, Reflective Practice Theory suggests that insufficient Action Research skills lead to reduced reflective engagement, which in turn undermines mathematics teachers' ability to diagnose learners' challenges effectively. This theoretical link supports the study's assumption that building teachers' Action Research competence is crucial for improving diagnostic practices and enhancing mathematics learning outcomes.

Problem Statement

Teacher training colleges in Eswatini offer limited opportunities for practical engagement with Action Research (AR), with instruction largely emphasizing theoretical research methodologies rather than classroom-based inquiry. As a result, many primary school teachers graduate without the requisite competence to systematically identify learners' learning difficulties, design and implement targeted instructional interventions, or engage in structured reflection on their teaching practices. This inadequacy in teachers' AR capacity constrains their professional development and contributes to the persistence of low learner achievement in mathematics.

Despite the well-documented benefits of Action Research in enhancing teaching and learning, a substantial number of primary school teachers in Eswatini appear to lack the necessary knowledge and skills to conduct AR effectively. This challenge is further exacerbated by large class sizes, which often compel teachers to rely on traditional, teacher-centred instructional approaches. Consequently, there is a need to investigate the extent to which primary school teachers in Eswatini are able to conduct Action Research and to examine the instructional approaches they employ in addressing underperformance in mathematics.

Purpose of the study

The purpose of the study is to investigate primary school mathematics teachers' knowledge, and understanding of AR with the aim of identifying gaps and identifying strategies in order to strengthen AR capacity among primary school teachers in Eswatini.

Specific Objectives

1. To assess primary school teachers' knowledge and understanding of Action Research.
2. To examine the skills and competencies of teachers in planning, implementing, and evaluating Action Research cycles.
3. To provide recommendations for strengthening Action Research capacity among primary school teachers in Eswatini.

Research Question

1. What knowledge and understanding do primary school teachers have about AR
2. What skills and competencies do primary school teachers possess in planning, implementing, and evaluating Action Research cycles?
3. What recommendation can be given to strengthen Action Research capacity among primary school teachers in Eswatini?

Research Methodology

Research Design

This study employed an explanatory sequential mixed-methods approach, in which qualitative data was used to further explain the initial quantitative results. This design was best suited to first determine the extent to which primary school teachers across the sample utilize action research, and subsequently explore the underlying reasons, beliefs, and contextual factors—the "why" and "how"—that influence its use within the Eswatini primary school setting.

In the quantitative phase, a survey was administered to all 30 participants to measure the frequency, duration, and perceived outcomes of their engagement with action research. Questionnaires were selected for their ability to gather a wide range of data efficiently. These instruments utilized a four-point Likert scale (ranging from "Strongly Agree" to "Strongly Disagree") as well as multiple-choice questions. The researcher distributed the questionnaires personally, and participants were encouraged to complete and submit them upon conclusion.

The qualitative phase followed, utilizing semi-structured interviews with a selected subset of the original 30 participants. These interviews were designed to explore teacher experiences in depth and elaborate on the quantitative findings, particularly regarding the perceived benefits and challenges of implementing action research.

Participants and Sampling

The target population for this study comprised primary school teachers currently employed in public schools within Eswatini. From this population, a sample of 30 primary school teachers was selected to participate in the study.

Sampling Techniques

Two distinct sampling methods were employed to accommodate the different data requirements and phases of the study:

Phase 1: Simple Random Sampling

This technique was used to select the 30 teachers from an accessible sampling frame. By ensuring that every teacher had an equal probability of being selected, this method enhanced the generalizability of the survey results. This phase aimed to measure the extent to which primary school teachers utilize action research, as captured through Likert-scale and multiple-choice responses.

Phase 2: Purposive Sampling

Following the quantitative analysis, a sub-group of six teachers was selected using purposive sampling. Participants were chosen based on their survey responses to provide contrasting perspectives:

- ***High-use participants*:** Selected to identify and understand the enabling factors that facilitate action research.
- ***Low- or zero-use participants:*** Selected to explore the specific barriers and challenges that hinder the implementation of action research within the Eswatini primary school context.

Findings and discussion of data from Questionnaires

Table1: ***The extent to which primary teachers use AR***

Statement	Response % (N=30)	Major Finding
I know Action Research	1: Strongly disagree (90%)	The majority of teachers do not know AR
I have used Action Research in my mathematics class	2: Never (90%)	The majority of teachers have never use AR
I know the cyclic stage of the Action Research	3: Strongly disagree (100%)	None of the participants could identify the cyclic stage of the AR
I am familiar with the term Action Research	4: Strongly agree (100%)	All the participants knew the existence of action research
My understanding of the distinction between Conventional Research and Action Research is clear	5: Strongly disagree (93%)	The majority of the participants do not know the difference between the two types of research
I received formal training in AR methodology	6: Strongly disagree (55%) Disagree (45%)	All the participants were not trained in AR methodology accounting for the low trend of using AR by teachers

The results in *Table 1* reveal significant gaps in primary school teachers' knowledge, understanding, and use of Action Research (AR) in mathematics classrooms. These findings highlight a systemic challenge in teacher preparation and professional development in Eswatini and echo concerns raised in previous regional studies. The study shows that 90% of teachers

have never used Action Research in their mathematics classrooms. One of the participants said, "*Honestly, the intention is there, but the workload is simply overwhelming. Between lesson planning, marking, and my responsibilities in my part-time programme, I rarely have the energy to conduct formal research*". This finding strongly suggests that AR remains largely absent from classroom practice despite its recognized importance in improving instruction. This aligns with Maphosa and Phiri (2015), who argue that teachers in many Southern African contexts lack the capacity to implement AR due to insufficient exposure and training. Similarly, Nxumalo (2019) reports that Eswatini teachers rarely engage in AR, even though the method is recommended by the Ministry of Education and Training (MoET) as a mechanism for reflective practice.

The fact that 100% of the participants could not identify any of the cyclic stages of Action Research (plan, act, observe, reflect) reveals a profound conceptual gap. Kemmis and McTaggart (2007) emphasize that understanding the AR cycle is foundational to effective implementation. If teachers cannot identify these stages, they cannot plan or structure AR projects. This finding is consistent with Kunene (2021), who found that pre-service teachers in Eswatini teacher training colleges demonstrated only superficial awareness of AR terminology but lacked procedural knowledge. General Familiarity with the Term "Action Research," Interestingly, all participants (100%) reported that they were familiar with the term Action Research, suggesting that the concept is commonly mentioned within the profession. However, this surface-level familiarity does not translate into practical knowledge or application. Partricipant D said, "*In our setting, we face large class sizes and a shortage of materials, which makes it hard to focus on anything beyond basic curriculum delivery*." According to Cohen, Manion, and Morrison (2018), familiarity with research vocabulary often does not equate to competence in research practice. This mirrors the observation by Vilakati (2020), who found that Eswatini teachers often "know the term but not the practice."

A substantial proportion **(**93% strongly disagree) indicated that they do not understand the difference between conventional research and AR. This lack of differentiation is problematic because AR is designed to be practitioner-based, problem-oriented, and cyclical, unlike conventional research which is more formal, systematic, and academic (McNiff & Whitehead, 2011). The inability to distinguish these forms of inquiry may prevent teachers from valuing AR as a practical classroom improvement tool. Dlamini (2017) similarly found that many teachers in Eswatini associate research exclusively with academic dissertations, not classroom-based problem solving. The finding that none of the participants received formal training in AR (with 55% strongly disagreeing and 45% disagreeing) is likely the root cause of all the weaknesses identified. Without training, teachers lack, knowledge of AR stages, understanding of differences between research types, and competence to apply AR in practice. This confirms the concerns raised by Dlamini & Myeni (2022), who state that Eswatini teacher training colleges place little emphasis on AR, focusing instead on traditional research approaches. Motsa (2020) adds that this gap contributes to teachers' inability to diagnose learner difficulties in mathematics an essential skill supported by AR cycles.

Findings and Discussion: Qualitative Interview Data

The findings of this study highlight a significant deficiency in teachers' Action Research (AR) competencies, a gap that directly compromises their ability to diagnose learners' mathematical challenges. While all participants reported familiarity with the term "Action Research," a stark disconnect exists between theoretical awareness and practical application.

Quantitatively, 90% of the interviewed teachers indicated they had never implemented AR in their mathematics classrooms. One participant noted, *"To be honest, I have never used Action Research in my maths lessons… I have never actually applied it in my classroom."* Another echoed this sentiment, attributing the lack of practice to a gap in their initial education: *"We were not taught how to conduct Action Research… I have never tried it."* These responses underscore a critical "awareness-application" gap; knowing the terminology does not equate to the functional ability to implement it.

The study further revealed a fundamental lack of methodological depth, as none of the participants could identify the cyclic stages of Action Research. This lack of structure was evident in teacher testimonies: *"I don't know the stages… we were never taught the steps, so I have no idea how the process works."* Another admitted, *"If you ask me to outline the cycle, I wouldn't know where to start."* Without a grasp of these iterative stages, teachers are unable to engage in the systematic reflection essential for addressing complex mathematical difficulties (Schön, 1983; Lewin, 1946).

Consequently, teachers' understanding remains superficial. As one participant explained, *"Our understanding is mostly at surface level."* This confirms that awareness of AR often fails to translate into a robust tool for classroom inquiry (Kemmis & McTaggart, 2005). Furthermore, 93% of teachers struggled to distinguish AR from conventional academic research, with one teacher observing: *"I struggle to differentiate Action Research from the normal research we did at college… I only remember the big research projects."* This conceptual confusion undermines the perceived utility of AR, leading to its underutilization in the classroom.

Participants consistently reported that their teacher training programs prioritized conventional research over practitioner-based inquiry: *"I feel like the colleges focus on conventional research… so we finish without the skills to apply it in the classroom."* Literature supports this, suggesting that without training in reflective inquiry, teachers are significantly less likely to engage in systematic problem-solving (Cochran-Smith & Lytle, 2009).

In the absence of AR skills, teachers frequently resort to simplistic, non-diagnostic approaches to address learner difficulties. Rather than investigating conceptual misconceptions, some participants attributed poor performance to student character: *"Some students are just lazy; that's why they don't understand mathematics."* Others relied on repetitive pedagogy as a default solution: *"When learners fail, I just give them extra work until they catch up."* These strategies indicate a weakness in diagnostic practice and align with Attribution Theory (Weiner, 1985), where teachers without reflective skills often externalize the causes of failure to minimize their own instructional role (Brophy, 2010). While giving extra work may occupy learners, it fails to address the underlying cognitive obstacles, allowing mathematical difficulties to persist.

Reflective Practice Theory emphasizes that both reflection-in-action and reflection-on-action are vital for effective diagnosis (Schön, 1983). Teachers lacking AR skills are essentially deprived of the framework required for evidence-based problem-solving. Research in mathematics education demonstrates that when teachers engage in structured reflection—such as Action Research or lesson study—they are better equipped to identify specific misconceptions and adjust instruction (Borg, 2010)

Conclusion

This study investigated the impact of deficient Action Research (AR) skills on the ability of mathematics teachers to diagnose learner challenges. The findings demonstrate that while teachers possess a conceptual awareness of AR, a significant majority have never implemented it in a classroom setting and remain unable to articulate its iterative, cyclic stages. Furthermore, a pervasive lack of formal training has left many teachers unable to distinguish between conventional academic research and the practitioner-led framework of AR.

Consequently, teachers' reflective capacity—both reflection-in-action and reflection-on-action is significantly constrained. In practice, this manifests as a reliance on reductive strategies, such as attributing learner failure to a lack of effort, assigning repetitive exercises, or re-teaching lessons without a diagnostic analysis of underlying cognitive misconceptions. Ultimately, the absence of AR competencies undermines the diagnostic precision of teachers and hinders the overall effectiveness of mathematics instruction, thereby creating a barrier to learner achievement.

Recommendations

Based on the study's findings regarding the gap in Action Research (AR) competencies, the following recommendations are proposed for the Ministry of Education, teacher training colleges, and mathematics teachers:

1. Teachers college Integrate comprehensive Action Research methodology modules into the core teacher-training curriculum. These modules should prioritize practical, classroom-based application over theoretical knowledge, ensuring that pre-service teachers can confidently navigate the AR cycle.
2. Teachers college should shift the focus from conventional academic research to practitioner-led inquiry. Training should specifically equip future teachers with the tools to distinguish between traditional research and AR, focusing on how the latter serves as a diagnostic tool for mathematics instruction.
3. Ministry of Education should facilitate ongoing workshops and peer-collaboration platforms that focus on sustaining AR practices within schools. This should include providing the necessary resources and administrative support to foster a culture of inquiry.
4. Ministry of Education should implement mentoring and collaborative lesson study programs that encourage reflection-in-action and reflection-on-action. By providing a framework for professional growth, the Ministry can help move teachers away from superficial diagnostic strategies.
5. Ministry of Education should establish clear guidelines that recognize AR as a valid component of teacher professional development, ensuring that teachers are incentivized to engage in systematic classroom problem-solving.
6. Mathematics teachers should move away from superficial attributions (such as student "laziness") and repetitive "extra-work" strategies. Instead, teachers should adopt structured AR approaches to identify and analyze the root causes of learners' conceptual misconceptions.
7. Teachers should inncorporate the AR cycle—planning, acting, observing, and reflecting—into routine instructional practice. Teachers should actively seek opportunities to document and reflect on their teaching interventions to improve learner achievement.

8. It is recommended that future studies investigate the direct longitudinal link between AR training, improvements in teachers' diagnostic abilities, and student performance metrics in mathematics.

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Conflict of Interest
I declare that there is no conflict of interests regarding the publication of the paper or otherwise.

Authors' contributions
The author confirms sole responsibility for the following: study conception and design, data collection, analysis and interpretation of results, and manuscript preparation.

References

Al-Mahdi, O**.** (2019). Action Research and teachers' professional development: *Examples and Reflection, Internation46al Educational Research* 2(3), p37-46. DOI: https://doi.org/10.30560/ier.v2n3p37

Bait, G., & Boulton-Lewis, G. (1993)**.** *Action research as a tool for professional development*. Queensland University of Technology.

Borg, S**.** (2010). Language teacher research in a non-western context: Reflections from the United Arab Emirates. *Language Teaching, 43*(4), 419–437. https://doi.org/10.1017/S026144480999036X

Brophy, J. E. (2010). *Motivating students to learn* (3rd ed.). Routledge. https://doi.org/10.4324/9780203858318

Bruns, M**.** (2023). Teachers' professional learning and its impact on students' learning outcomes: Findings from a systematic review. *Social Sciences & Humanities Open, 8*(1), 100565. . https://doi.org/10.1016/j.ssaho.2023.100565

ResearchGate Link

Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. Teachers College Press. https://www.tcpress.com/inquiry-as-stance-9780807749333,

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge. https://doi.org/10.4324/9781315150529

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute. https://doi.org/10.54300/122.311

Dlamini, B. S. (2017). The unfolding competency-based education process in Swaziland 2010–2017. *IOSR Journal of Humanities and Social Science*, *22*(5), 27–41. https://doi.org/10.9790/0837-2205022741

Dlamini, B. S., & Myeni, S. O. (2020). The paradox of integrating Action Research in the teaching of Mathematics: The case of Eswatini primary schools. *UNESWA Journal of Education (UJOE)*, *3*(1), 104–118. https://www.africabib.org/rec.php?RID=322604737

Kemmis, S., & McTaggart, R. (2005). Participatory action research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 559–603). Sage Publications. https://uk.sagepub.com/en-gb/eur/the-sage-handbook-of-qualitative-research/book223175

Kemmis, S., & McTaggart, R. (2007). Communicative action and the public sphere. In S. Kemmis & R. McTaggart (Eds.), *The SAGE handbook of action research: Participative inquiry and practice* (2nd ed., pp. 27–43). Sage Publications. https://doi.org/10.4135/9781848607934.n4

Kunene, N. L. (2021). Science education lecturers' practices in preparing pre-service teachers for competency based education: A case study of Eswatini teacher training colleges. *Journal of African Education*, *2*(1), 63–84. https://doi.org/10.31920/2633-2930/2021/v2n1a3

Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues*,

2(4), 34–46. https://doi.org/10.1111/j.1540-4560.1946.tb02295.x

. López-Gopar, M. E**.** (2014). Social class in English language education in Oaxaca, Mexico . *Journal of Language, Identity, and Education, 13*(2), 104–110 . https://doi.org/10.1080/15348458.2014.901822

Maphosa, M., Tshuma, N., & Maviza, G**.** (2015). Participation of women in Zimbabwean Politics and the mirage of gender equity. In *Journal of Asian and African Studies*.

McNiff, J., & Whitehead, J**.** (2011). *All you need to know about action research* (2nd ed.) . SAGE Publications. . https://doi.org/10.4135/9781446251416

Mills, G. E**.** (2017). *Action research: A guide for the teacher researcher* (6th ed.). Pearson . (General AR text by Mills, 2017 is inferred).

Motsa, Z. T**.** (2020). *An Introduction to the Literature of eSwatini*. Rowman & Littlefield. (The specific work on diagnostic difficulties in mathematics could not be confirmed.)

Nxumalo, N. L. (2019). Teachers' use of computer-based simulations in teaching electrolysis: A case study in Eswatini. *African Journal of Research in Mathematics, Science and Technology Education, 23*(2), 173–184. https://doi.org/10.1080/18117295.2019.1688475

Phillips, D. K., & Carr, K. S. (2010). *Becoming a teacher through action research: Process, context, and self-study*. Routledge. https://doi.org/10.4324/9780203855010

Phillips, D. K., & Carr, K. S**.** (2010). *Becoming a Teacher through Action Research: Process, Context, and Self-Study*. Routledge. https://doi.org/10.4324/9780203855010

Rock, T. C., & Levin, B. B**.** (2002). Collaborative action research projects: Enhancing Pre-service teacher development in professional development schools. *Teache Education Quarterly 29*(1), 7–21. https://eric.er.gov/?id=ej908966

Ross, D. D. (1987). Action research: A tool for preparing reflective practitioners. *Peabody Journal of Education*, *64*(3), 131–143. https://doi.org/10.1080/01619568709538562

Ross, D. D., Van Dusen, L. M., & Otero, V. C**.** (2014). The role of reflection in teacher learning: An action research perspective. In K. B. B. Otero, P. S. B. Otero, M. D. E. Van Dusen,& J. L. A. E. A. Ross (Eds.), *Teaching and learning with technology: A Reflection onPractice* (pp. 57–76). Sense Publishers.

Schon, D. A**.** (1983). *The Reflective Practitioner: How Professionals Think in Action*. Basic Books.

Schon, D. A. (1987). *Educating the Reflective Practitioner: Toward a new Design fo Teaching and Learning in the Professions*. Jossey-Bass.

Tait, H. (1993***).*** *Assessing study strategies and approaches to learning. [Unpublished manuscript/Research Report]. University of Edinburgh.*

Valli, L. (1992). *Reflective Teacher Education: Cases and Critiques*. State University of New York Press.

Vilakati, N. (2020). Challenges faced by primary school teachers in the implementation of the Continuous Assessment (CA) policy in Eswatini. *UNESWA Journal of Education (UJOE)*, *3*(1), 119–135.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review, 92*(4), 548–573. https://doi.org/10.1037/0033-295X.92.4.548

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