

Key Determinants of Instructional Leadership in Advancing Entrepreneurship Education Implementation in Senior Phase Schools, North West Province, South Africa

Ngozi Blessing Enebe^{1*} 

Jan Heystek² 

Martha Matashu³ 

AFFILIATIONS

^{1&3}Department of Education Management, North-West University, Mafikeng, South Africa.

²Department of Education Management, North-West University, Potchefstroom, South Africa.

CORRESPONDENCE

Email: 36037214@mynwu.ac.za*

EDITORIAL DATES

Received: 25 February 2025

Revised: 25 April 2025

Accepted: 27 April 2025

Published: 01 May 2025

Copyright:

© The Author(s) 2025.

Published by [ERRCDF Forum](#).

This is an open access article distributed under Creative Commons Attribution (CC BY 4.0) licence.



DOI: [10.38140/ijer-2025.vol7.1.18](https://doi.org/10.38140/ijer-2025.vol7.1.18)

Abstract: In South Africa, the ongoing challenges of youth unemployment and poverty necessitate creative solutions, such as entrepreneurship education (EE), to bolster economic resilience. Although EE's potential is acknowledged, its successful implementation in senior phase schools (Grades 7–9) encounters obstacles due to insufficient exploration of the factors influencing instructional leadership, especially in resource-constrained areas like the North West Province, South Africa. This research sought to pinpoint the critical elements of instructional leadership for enhancing EE implementation in these schools. A quantitative method with a cross-sectional design was used. Data were gathered through questionnaires from 51 public secondary schools, chosen via convenience sampling, within the Ngaka Modiri Molema District (N = 437 schools). Descriptive statistical analysis indicated that in-service training, parental involvement, distributed leadership, funding and partnerships with community entrepreneurs significantly impacted the advancement of EE. These results underscore the necessity of internal institutional support, such as professional development and collaborative leadership frameworks, and external stakeholder engagement to overcome implementation challenges. The study concludes that instructional leaders, including principals, department heads and teachers, need systemic capacity-building and resource allocation to promote EE effectively. The recommendations stress

the importance of school governing bodies and management teams institutionalising stakeholder collaboration while policymakers should prioritise funding and training initiatives. By addressing these factors, schools can better prepare students with entrepreneurial skills, aligning educational outcomes with national economic development objectives.

Keywords: Entrepreneurship education, instructional leadership, support and resources, external stakeholders, senior phase.

1. Introduction

Entrepreneurship education (EE) is increasingly acknowledged worldwide as a crucial driver of innovation, economic growth and job creation, particularly in the face of technological advancements and shifting labour market demands (Park, 2024; Soler-Domínguez et al., 2024). Globally, educational systems integrate EE into their curricula to equip learners with entrepreneurial mindsets and skills that enhance adaptability, creativity and self-reliance (Nyamboga, 2024). As primary educational institutions, schools are pivotal in preparing young people for the complexities of the twenty-first-century economy. Effective education leadership is vital to ensure this preparation is deliberate and transformative.

In South Africa, addressing the need for EE is critical. The nation faces an alarmingly high youth unemployment rate, with over 43% of individuals aged 15 to 34 not engaged in employment, education or training (Brown, 2023). These challenges are exacerbated by ongoing economic inequalities, underdevelopment in rural areas and a rapidly changing job market. Therefore, the

How to cite this article:

Enebe, N. B., Heystek, J., & Matashu, M. (2025). Key determinants of instructional leadership in advancing entrepreneurship education implementation in senior phase schools, North West Province, South Africa. *Interdisciplinary Journal of Education Research*, 7(1), a18. <https://doi.org/10.38140/ijer-2025.vol7.1.18>

Department of Basic Education has implemented several programmes, such as the E3 (employability, entrepreneurship and education) initiative and the Sprouting Entrepreneurs programme, which aim to integrate entrepreneurial thinking into school curricula. These programmes are particularly emphasised through project-based learning and promoting agricultural entrepreneurship in rural regions (Forcher-Mayr & Mahlknecht, 2020; Worthing-Smith, 2018).

Although several efforts have been made, executing EE in South African schools is still inconsistent and underdeveloped. Senior phase (SP) schools (Grades 7–9) are crucial for introducing fundamental entrepreneurial concepts. However, EE in this phase encounters systemic challenges, including inadequate integration into the curriculum, insufficient teacher training and a lack of support at the school level (Du Toit & Kempen, 2020). Instructional leaders, such as principals, departmental heads (DHs) and teachers, are crucial in fostering an environment conducive to entrepreneurship. However, they often face barriers that hinder their ability to effectively promote EE, such as limited professional development opportunities, outdated teaching methods and a scarcity of educational resources (Ntsanwisi & Simelane-Mnisi, 2024). These barriers are further categorised into internal support and resources for instructional leaders and support and motivation for external stakeholders.

Internal support and resources for instructional leaders are fundamental for successfully promoting EE. Instructional leaders in many South African schools, particularly those in rural and under-resourced areas, face significant challenges due to insufficient funding, inadequate teaching materials and limited professional development opportunities (Ntsanwisi & Simelane-Mnisi, 2024). Without adequate resources, instructional leaders cannot create an environment that supports experiential learning and the practical application of entrepreneurial concepts, which are essential components of EE. Many teachers often resort to traditional, lecture-based teaching methods that fail to cultivate the creative and critical thinking skills necessary for entrepreneurship (Ramchander, 2019). Recent research has shown that graduates typically lack employability skills, also known as work readiness skills. Consequently, learners graduate without the skills or confidence to pursue entrepreneurial ventures, limiting their prospects in a rapidly evolving job market (Riviezzo et al., 2023).

Another critical challenge is inadequate external stakeholder support and motivation. Successful EE implementation requires collaboration between schools and external stakeholders, including businesses, government agencies and community organisations (Mokoena, 2018). These stakeholders can provide learners with practical exposure to entrepreneurship through mentorship programmes, internships and business partnerships. However, many South African schools, particularly those in disadvantaged communities, struggle to establish these connections, exacerbating the disconnect between theoretical classroom instruction and real-world entrepreneurial experiences. This poor stakeholder engagement (community entrepreneurs) limits learners' practical understanding of entrepreneurship and diminishes their motivation to pursue entrepreneurial opportunities upon completing their education.

Moreover, for SP schools to successfully implement EE, they must have strong internal teaching capabilities and effective collaboration with external partners. Connecting with parents, local business owners, government agencies and civil society organisations is crucial to providing students with practical experiences, guidance and real-world entrepreneurial learning opportunities (Buratti et al., 2022). Unfortunately, many South African schools, particularly those in rural or underfunded areas, struggle to form and sustain these partnerships, reducing the impact and relevance of their EE programmes.

While many studies have investigated EE in South Africa, notable gaps exist. Xaba (2016) emphasises the role of leadership in supporting EE but overlooks the specific resource needs of instructional leaders. Mokoena (2018) concentrates on stakeholder engagement but does not explore the structural

barriers to effective collaboration. Similarly, Mahlangu and Pitso (2021) examined curriculum reform but failed to consider the motivational factors that encourage community stakeholders to support EE. Given this background, the current research addresses these knowledge gaps by exploring the critical factors influencing instructional leadership in advancing EE in SP schools in the North West Province of South Africa.

This study focuses on the importance of internal support and resources available to instructional leaders, as well as the involvement and motivation of external stakeholders. By deepening the understanding of these elements, the research aims to inform strategies that empower instructional leaders and strengthen school-community partnerships to enhance the effectiveness and reach of EE. This initiative aligns with the broader national objective of fostering youth entrepreneurship as a sustainable path to economic inclusion and social advancement.

1.1 Problem statement

EE is increasingly seen as a strategic tool to combat youth unemployment and economic inequality in South Africa. However, its implementation in SP schools is still inadequate and ineffective. National efforts, such as the E3 programme, aim to weave entrepreneurial skills into the curriculum; however, many schools, particularly those in rural and underfunded areas, face difficulties in effectively executing these policies. A key reason for this is the absence of strong instructional leadership, vital for nurturing and sustaining a supportive environment for EE. Instructional leaders, including principals, department heads and teachers, often lack the necessary resources, professional training and pedagogical support to employ experiential and student-centred teaching methods for EE. Consequently, entrepreneurship is usually taught through traditional, memorisation-based methods, which do not adequately prepare learners with the skills for real-world entrepreneurial success. This issue is further compounded by the limited involvement of external stakeholders, such as local businesses, community organisations and government agencies, whose participation is crucial for providing students with genuine entrepreneurial experiences. Without sufficient leadership and collaboration with stakeholders, EE becomes a theoretical exercise disconnected from practical application, decreasing student motivation and reducing the likelihood of entrepreneurship being seen as a viable career path after school. If these issues are not addressed, South African SP schools will continue to produce graduates who are unready for self-employment or entrepreneurial innovation, perpetuating cycles of poverty, unemployment and economic marginalisation. Therefore, this study explored the critical factors of instructional leadership in enhancing EE implementation in SP schools in the North West Province of South Africa. Based on this problem, the following research questions guided the study:

- What internal support and resources do instructional leaders need to implement the EE curriculum in schools?
- What are the external stakeholder support and motivation for implementing the EE curriculum in schools?

2. Literature Review

EE is a self-empowerment education that develops learners' entrepreneurial mindsets and skills to create value for themselves and the economy. As a veritable instrument in the hands of a young generation, EE instils innovativeness, creativity and problem-solving skills to identify opportunities around them and key into them for reward. EE in the SP has been implemented. This study seeks an improved implementation of this subject to enhance learners' entrepreneurial mindsets and problem-solving abilities. The rise of entrepreneurship might help lessen social vices, such as unemployment, crime and poverty, as in the case of South Africa. Empirical evidence proposes that poverty reduction necessitates economic growth and that economic growth is fuelled by entrepreneurship (Zouita, 2021). It is anticipated that a school curriculum guarantees the development of trained labour to

guarantee the provision of the desired goods and services needed to expand society (Uleanya et al., 2018).

The importance of entrepreneurship has always been emphasised, especially in economic discourse. Even though enterprise and entrepreneurship originated in the corporate sector, they are now more often considered educational subjects, especially in the early years of the required school system (Miço & Cungu, 2023). Therefore, most postsecondary institutions offer entrepreneurship training programmes to lower unemployment and prepare learners with the knowledge and abilities to launch a firm. According to Othman et al. (2023), higher education institution graduates frequently struggle to find employment for several years after graduation, making the high unemployment rate in rising nations a global concern. Therefore, this paper examines these determinants in the SP to understand how learners could be assisted at this level to be entrepreneurially equipped for the life ahead of them.

Moreover, as this study intends, some factors include in-service training, introducing EE into the foundation and intermediate phases, parental support, distributed leadership and community entrepreneurs, which are categorised into support and resources for instructional leaders and external stakeholders' support and motivation. Receiving in-service training is essential for instructional leaders to advance their careers and raise student achievement. Research highlights the value of instructional leadership in developing professional learning communities, encouraging shared accountability between head teachers and teachers, and addressing new issues in educational institutions (Mackinnon, 2019). Early exposure to EE is essential for developing learners' entrepreneurial attitudes and abilities (foundation and intermediate phases), which will have long-term benefits. According to research, early exposure to entrepreneurship in primary schools can significantly improve learners' social orientation, creativity, self-esteem, perseverance, autonomy and proactivity (Floris et al., 2023). Stakeholders can empower youth, foster an environment that encourages youth entrepreneurship and support social and economic development by incorporating EE early (Choi & McLain, 2024).

2.1 Internal support and resources for instructional leaders in ee implementation

Support and resources are essential for instructional leaders to implement EE effectively. The support and resources in this study are the need for in-service training, participation among instructional leaders and funds, which are essential for boosting EE curriculum implementation where the school leadership is saddled with their provision. Successful EE implementation requires a consensus among teachers on teaching methods, support from leadership, a school culture that values entrepreneurship, prioritising EE, professional development and teacher networking (Hardie et al., 2022). Entrepreneurial leadership, characterised by visionary thinking, proactiveness and flexibility, fosters innovation and creativity, encouraging educators to adopt new strategies and technologies for a culture of continuous improvement (Meung, 2023).

The availability of training resources significantly impacts the implementation of EE programmes. For instance, in Kenya, insufficient resources, such as small business centres, local role models and financial assistance, have limited the effectiveness of EE programmes, underscoring the need for adequate resource allocation strategies (Mkala & Wanjau, 2018). In Egypt, the lack of awareness and training in entrepreneurship knowledge and competencies among educators has been identified as a barrier, emphasising the importance of ongoing professional development to qualify teachers to deliver EE effectively (Schachtebeck & Tselepis, 2023).

Educators' characteristics are critical in producing successful entrepreneurs, such as their ability to support EE through training (Tamam et al., 2022). Instructional resources and teachers' ability to facilitate skill-based subjects positively correlate with developing entrepreneurial skills, highlighting the need for qualified educators through in-service training and adequate resources (Godfrey-Kalio

et al., 2017). The relationship between learning competencies and entrepreneurial efficacy shows that enhancing these competencies through dedicated programmes can significantly improve entrepreneurial intention and success (Kim & Ju, 2024). Similarly, integrating EE into the foundation and intermediate stages further enables instructional leaders to establish a continuum of entrepreneurial competencies. The early introduction of fundamental EE concepts fosters positive learner attitudes and enhances leaders' ability to scaffold entrepreneurial learning across various grades (Pidduck et al., 2021).

In higher education institutions, the effectiveness of EE is linked to the alignment of learning support and institutional resources, both crucial for developing successful entrepreneurs (Ghina, 2014). Likewise, at the school level, EE has assisted learners in navigating uncertain environments through creativity and problem-solving skills, which are critical for innovation and adaptability (Núñez-Canal et al., 2023). Adequate material and financial resources are essential for effectively implementing EE. Funding limitations hinder leaders' capacity to acquire educational materials, organise entrepreneurial events and support teacher development, thereby making equitable resource allocation a fundamental necessity (Kirori & Dickinson, 2020; Mestry, 2020). South African schools, particularly those in disadvantaged areas, often contend with complex funding regulations that result in inadequate allocations. This situation compels leaders to augment budgets through community partnerships and innovative resource mobilisation (Buratti et al., 2022). The entrepreneurial framework, which includes government policies, educational frameworks and cultural norms, highlights the need for a supportive EE environment. The weakest link in this framework is often found in the early educational stages, where more support is needed.

Despite the evidence regarding the significance of training, early integration and funding, existing literature seldom explores how these internal supports converge within SP leadership structures. Most studies concentrate on policy or general teacher training, leaving a gap in understanding how principals, department heads and teacher leaders strategically coordinate internal resources to advance EE at this critical stage (Maka, 2023).

2.2 External stakeholder support and motivation

External stakeholder support and motivation are crucial for improving the effectiveness of EE. Collaboration between crucial external stakeholders, such as enterprises, professional associations and public institutions, is vital in developing a robust entrepreneurial ecosystem (Bischoff & Volkmann, 2018). These stakeholders shape educational strategies to meet real-world entrepreneurial needs, enhancing outcomes (Covaş & Solcan, 2018). As this study implies, community entrepreneurs (local businesspeople) and parents are stakeholders.

Stakeholders also play a role in knowledge acquisition in schools, acting as enablers and facilitators of entrepreneurial learning (Radko et al., 2022). Their involvement supports educational frameworks and provides practical exposure that fosters an entrepreneurial mindset in learners (Sun et al., 2023). Intrinsic and extrinsic motivation further strengthen EE by influencing learners' entrepreneurial intentions. Intrinsic motivation positively affects this relationship, whereas extrinsic motivation can have a negative moderating effect (Sun et al., 2023). Motivation and role models (community entrepreneurs) significantly boost learners' interest in entrepreneurship (Nariswari & Sutopo, 2024). Similarly, parental involvement is recognised as a pivotal factor in promoting EE. When parents actively support entrepreneurship learning at home by offering guidance and encouragement and sharing real-world examples, students demonstrate enhanced engagement and retention of EE concepts (Marongwe & Mutesasira, 2024). Previous reviews have identified parents as "forgotten stakeholders", whose emotional and social support is essential for cultivating an entrepreneurial mindset among learners (Allen, 2022).

Incorporating entrepreneurship practice into education highlights the importance of motivation and stakeholder support in cultivating innovative talent (Wang, 2020). Principals' ability to use external stakeholders in general education underscores the need for networking and collaboration in EE, with principal training playing a critical role in using external resources (Hämäläinen et al., 2018). The stakeholder approach emphasises the need for a comprehensive strategy that includes stakeholder engagement, motivation and practical experience to prepare learners for entrepreneurial endeavours (Safitri & Nugraha, 2022). The synergy between stakeholder support and motivation creates a robust framework for EE, leading to improved entrepreneurial outcomes and a more dynamic educational environment.

Several studies have been conducted on EE and instructional leadership in South African schools. Gangiah (2024) conducted a study to examine sustainable entrepreneurship for South African youths. It found that funding access, business skills development, mentorship and networking opportunities were crucial for nurturing sustainable entrepreneurship. Qwabe et al. (2025) investigated EE as critical for promoting entrepreneurial intent among South African undergraduate students. The findings highlighted inadequacies in the universities' EE programmes in terms of adequately supporting students' entrepreneurial aspirations. Furthermore, Maponya (2020) studied the instructional leadership role of the school principal on learners' academic achievement. The results showed that principals' roles were to create a positive teaching and learning culture, motivate and positively influence learners, and improve instructional management and parental involvement. Mlambo et al. (2024) examined the importance of EE in South Africa's basic education. The findings revealed that EE had not been fully consolidated in South Africa's primary education sector, significantly depriving learners of innovative skills and competencies to help them become entrepreneurs tomorrow. Despite the attention devoted to EE and instructional leadership in South African schools, limited studies have examined the determinants of instructional leadership (principals, DHs and teachers) in fostering EE implementation in the SP.

3. Methodology

This study forms a small segment of a larger project and employed a quantitative method and a cross-sectional design to systematically explore the factors affecting instructional leadership in advancing EE implementation in South African SP schools. A cross-sectional design was adopted, enabling data collection at a single point in time to analyse the relationships between variables without establishing causality (Bryman & Cramer, 2012). Although this study's title references South Africa, the research concentrated on the Ngaka Modiri Molema District (NMMD) in the North West Province. This district exemplifies the socioeconomic challenges common in rural and semi-urban South African schools, such as resource disparities and high youth unemployment, making it a strategic case for understanding the barriers to EE implementation. While these localised conditions limit the generalisability to broader contexts, the insights gained remain valuable for similar settings.

3.1 Population and sampling

The research targeted 1,311 instructional leaders (principals, DHs and teachers) from 437 public SP schools (Grades 7–9) in the NMMD. Due to logistical constraints, a convenience sample of 51 schools, representing 11.7% of the district's schools, was selected, resulting in 153 potential participants (3 leaders per school). Of these, 148 individuals (51 principals, 37 DHs and 60 teachers) completed the survey, achieving a response rate of 96.7%. Although convenience sampling limits the ability to generalise the findings, it provides practical access to remote rural schools, aligning with the study's aim of examining contextual challenges.

3.2 Data-collection Instrument

The study employed a structured questionnaire based on Hallinger and Murphy's (1985) instructional leadership framework. While the original instrument comprises six sections, ranging

from biographical details (Section A) to practical support activities (Section F), this research focuses on Section C: Factors Influencing Instructional Leaders. This section examines in-service training, resource availability, stakeholder collaboration and funding. Participants' views on these factors were assessed using a four-point Likert scale (1 = strongly disagree to 4 = strongly agree) and yes/no options.

3.3 Data analysis

Experts in EE and a statistician reviewed the data-collection instrument to ensure validity. Before full implementation, a pilot test was conducted with 15 participants in the Dr. Kenneth Kaunda District. For Section C, Cronbach's alpha coefficient was calculated to assess internal consistency, yielding a value of 0.76, which exceeds the acceptable reliability threshold of 0.70 (Bryman & Cramer, 2012). This value shows that the items in Section C effectively captured the underlying construct of factors affecting instructional leaders' capacity to promote EE. Data analysis was conducted using descriptive statistics of the mean (average) and standard deviation (SD), collected using a four-point Likert scale where the average of each rating was presented. The responses were ranked as 1 – strongly disagree, 2 – disagree, 3 – agree and 4 – strongly agree. The calculated means (averages) of the findings from the responses relate to the Likert scale: 1.0–1.5 = strongly disagree, 1.6–2.5 = disagree, 2.6–3.5 = agree, and 3.6–4.0 = strongly agree, respectively. Therefore, Tables 1 and 2 were interpreted using the mean score SD, arranged in ascending in line with the responses.

3.4 Ethical considerations

The Education Research Ethics Committee at North West University approved the study ethically (Approval No. NWU-EduRec/2023/045). Participation was voluntary, with informed consent obtained from participants who received an information sheet and consent form outlining the study's aims, confidentiality measures and their right to withdraw at any point without repercussions. Data were anonymised during collection, securely stored on a password-protected drive, and accessible only to the research team. No identifying information was linked to the responses.

4. Presentation of Results

Tables 1 and 2 categorise the findings into two constructs: support and resources for instructional leaders and external stakeholder support and motivation.

4.1 Explanation and interpretation

The internal support and resources (Table 1) subscale includes five items, each receiving average scores exceeding 3.3 on a four-point agreement scale, indicating a strong consensus on their significance for improving EE implementation. Notably, in-service training emerged as the most highly valued resource ($M = 3.66$, $SD = 0.49$), underscoring instructional leaders' conviction in the importance of specialised professional development to gain the pedagogical skills and content knowledge necessary for effectively teaching entrepreneurship curricula. Similarly, the average score for introducing EE at an early stage ($M = 3.64$, $SD = 0.48$) reflects a common belief that nurturing entrepreneurial mindsets from the foundational grades enhances implementation in the SP.

Although the aspect of adequate funding received positive evaluations, it showed the most significant variability ($M = 3.38$, $SD = 0.78$), indicating uneven resource distribution among schools, which could significantly challenge underfunded areas. However, the factors assessing the active involvement of instructional leaders ($M = 3.52$, $SD = 0.53$) and their willingness to engage in entrepreneurship activities ($M = 3.55$, $SD = 0.56$) highlight the vital role of collaborative leadership. Collectively, these findings propose that, in addition to training and resources, principals, DHs and educators view their active, hands-on participation as crucial in translating EE objectives into practical classroom applications.

Table 1: Internal support and resources for instructional leaders to improve EE implementation

Item no	Items	Mean	SD
1.	In-service training enables instructional leaders to acquire new EE skills and knowledge to promote EE curriculum implementation.	3.66	0.491
2.	Introducing EE at the foundation and intermediate phases will promote its curriculum implementation.	3.64	0.481
3.	Instructional leaders' constant availability in entrepreneurship exercises can promote implementing the EE curriculum.	3.55	0.563
4.	Participation among instructional leaders will promote EE curriculum implementation.	3.52	0.528
5.	Sufficient funds are needed to enable improved EE curriculum implementation.	3.38	0.777

4.2 Explanation and interpretation

The external stakeholder engagement subscale (Table 2) items consistently received high average scores (3.59–3.64), indicating that instructional leaders widely acknowledge the significance of collaborating with families and the community. Parental support at home received the highest score ($M = 3.64$, $SD = 0.50$), underscoring the belief that learning is enhanced when families actively encourage entrepreneurial behaviours outside of school. This result aligns with community–school synergy models that consider parents as co-educators in EE.

The concept of distributed leadership among various stakeholder groups was similarly supported ($M = 3.60$, $SD = 0.51$), indicating that shared governance and collaborative decision-making among schools, businesses and local government are advantageous for curriculum adoption. Furthermore, items related to incentive programmes ($M = 3.59$, $SD = 0.51$) and the involvement of community entrepreneurs as resource persons ($M = 3.59$, $SD = 0.55$) emphasise a comprehensive engagement strategy: educational leaders believe that combining motivational incentives with practical mentorship opportunities creates a more engaging, real-world learning environment for aspiring young entrepreneurs.

Table 2: External stakeholder support and motivation

Item no	Item	Mean	Std. D
6.	Parents supporting their children's entrepreneurship learning at home can improve its curriculum implementation.	3.64	0.497
7.	Distributed leadership at all levels will positively affect EE curriculum implementation.	3.60	0.505
8.	Providing incentives and motivation will promote EE curriculum implementation.	3.59	0.506
9.	Community entrepreneurs who function as resource persons contribute to promoting EE curriculum implementation.	3.59	0.546

5. Discussion

The following is a discussion of findings responding to the two constructs: support and resources for instructional leaders, and external stakeholder support and motivation.

5.1 Support and resources for instructional leaders to improve EE implementation

The findings show that in-service training for instructional leaders remains the first factor in promoting EE curriculum implementation in the SP. This view aligns with Maritz (2017), who states that instructional leaders have inadequate entrepreneurship knowledge. The author emphasises that ill-trained EE instructional leaders depend on the pedagogies and curriculum contents for learning,

highlighting the need for in-service training. This finding aligns with Shabalala et al. (2023), who names factors hampering the effective implementation of the EE curriculum as instructional leaders' poor understanding of the curriculum and poor training; hence, in-service training was encouraged. According to Ayvaz-Tuncel and Çobanoğlu (2018), training is one of the primary ways to ensure curriculum implementation.

Serafin (2019) found that educators have not undergone systematic didactic preparation for teaching because the training offered does not meet the didactic training requirements. Hence, in-service training in EE will be a departure between the general subjects and subject-specific disciplines, the core of educators' knowledge. Nguyen and Nguyen (2023) posit that in-service training is paramount to promoting the impact of EE on learners' entrepreneurial intentions. Regular professional training keeps instructional leaders abreast of current trends, industry practices, creative teaching methods and the delivery of quality entrepreneurial instruction. Alakaleek et al. (2023) opine that professional development improves instructional leaders' abilities and confidence in EE teaching and learning.

Table 1 also shows that introducing EE at the foundation and intermediate phases will promote its curriculum implementation. Mlambo et al. (2024) contend that EE should begin at a young age to develop learners' entrepreneurial attitudes. Pidduck et al. (2021) state that EE taught at a very young age helps learners develop a respect for opportunities for self-employment. Akombelwa (2018) states that it is crucial to constructively impart this skill at a young age because developing essential educational abilities during the early school years when the potential value of learners' time is the least is more economical.

The funding result indicates that respondents agree that funding could enhance EE curriculum implementation. Even though not every respondent agreed to the importance of funds in promoting EE curriculum implementation, its provision is necessary to enable learners to engage in the practical version of EE. Funds are critical for any organisation to function adequately and achieve its aims. Similarly, Mamabolo (2020) states that schools need funding from the public and private sectors and parents to integrate new and exciting curricula successfully. Ajani (2023) identifies that access to physical and educational resources is a product of funds, which aids in promoting EE curriculum implementation. Providing funds for entrepreneurial purposes could enable instructional leaders to give learners the tools, materials and equipment needed to turn theory into practice, fostering their entrepreneurial pursuit. Mestry (2020) opines that by strategically allocating resources, instructional leaders can build a system that nurtures and harbours entrepreneurial dispositions and enables experiential learning in learners. Funding is also crucial if entrepreneurship learners were to go on field trips to elaborate on their classroom experiences.

5.2 External stakeholder support and motivation

In Table 2, the respondents affirmed that parents supporting their children's entrepreneurship learning at home will promote EE curriculum implementation. This factor aligns with García-Rodríguez et al. (2022), who state that learners' academic achievement improves when parents are involved in their education. Sivabalan et al. (2024) found that parents' involvement in school matters facilitates learners' academic excellence and, thus, implored parents to assist their children in school and at home.

Furthermore, distributed leadership at all levels was a factor that could promote EE curriculum implementation in the SP. The observed finding correlates with Katewa and Heystek (2019), who state that principals collaborate with educators in distributed leadership to increase the chances for change and capacity-building in the school by mobilising leadership skills at all levels. Similarly, Mankgele (2023) opines that when school leaders are willing to embrace distributed leadership in schools where decision-making is distributed, collaboration among stakeholders and curriculum

implementation is realised. Tam (2018) iterates that distributive leadership contributed to school improvement in South African schools, boosting curriculum implementation.

Additionally, instructional leaders supported the findings on providing incentives and motivation, the constant availability of instructional leaders and participation among instructional leaders as factors that could enable an improved EE curriculum implementation in the SP. Hallinger (2005) states that incentives to instructional leaders and their constant visibility (availability) can promote curriculum implementation. The DoE (2008) supports participation among instructional leaders because it breeds team building through participatory structures, promoting curriculum implementation. Ogina (2021) opines that participatory leadership allows instructional leaders to grow as individuals, contributing to curriculum implementation. Robinson (2022) underlines the significance of motivating teachers to be enthusiastic about successful instruction delivery. The enormous obstacles that DHs and educators witness might reduce the motivation for teaching, which is further aggravated by the absence of formal support from the principals.

However, instructional leaders supported community entrepreneurs (practising local businesspeople) who function as resource persons as a factor that could promote EE curriculum implementation. The findings of Atobatele et al. (2024) correlate with this factor, stipulating that the community is an entity that supports the academic activities of learners and shows interest in what benefits them. Roundy (2022) found that community entrepreneurs play a role in training teachers and upcoming entrepreneurs. Community entrepreneurs will primarily train instructional leaders on the practical aspects of entrepreneurship. Furthermore, modelling a teaching strategy on the entrepreneurial process requires input from practising local businesspeople. Local practising entrepreneurs constitute a resource pool of role models who can positively influence learners for career entrepreneurship (Mkala & Wanjau, 2018) to establish a balance between theory and practice in the SP EE. The roles of community entrepreneurs in promoting entrepreneurship are pertinent to creating a conducive and supportive system that supports and develops entrepreneurial competencies and mindsets among learners. Hence, not engaging external stakeholders could limit learners' practical understanding of EE and demotivate their entrepreneurial pursuits upon graduation.

6. Conclusion

This research aimed to pinpoint the essential aspects of instructional leadership that support the successful execution of EE in South African SP schools. By analysing survey data from 148 principals, DHs and teachers across the five sub-districts of the NMMD, we found a strong agreement: targeted in-service training was identified as the most crucial internal support, providing instructional leaders with the pedagogical expertise and confidence to implement EE policy in the classroom. Participants also highlighted the benefits of introducing EE concepts at earlier grade levels and stressed the significance of distributed leadership, which involves active participation, shared decision-making and the continuous presence of leaders in entrepreneurial activities. Externally, parental support, structured incentive systems and collaborations with community entrepreneurs were consistently rated as vital in connecting theory with practice, thus encouraging students to engage deeply with EE curricula.

6.1 Limitations and suggestions for further studies

Although the study offers valuable insights, its scope is inherently limited due to its dependence on self-reported data from only one district. A stratified cluster sampling design and a 96.7% response rate enhance internal validity in similar rural and semi-urban environments. However, the results should not be generalised to all South African contexts, where variations in resource allocation, socioeconomic conditions and existing EE initiatives might be significant. Additionally, capturing leaders' perceptions does not necessarily reflect actual classroom practices or student entrepreneurial

outcomes, necessitating caution when interpreting these results as conclusive evidence of instructional impact.

We propose that education authorities establish regular, context-sensitive EE training modules for all instructional leaders to apply these findings practically, ensuring that professional development aligns with evolving curricular and community needs. Schools should also establish formal collaboration frameworks with parents and local entrepreneurs through mentorship programmes, community workshops and incentive schemes to foster a supportive ecosystem beyond the classroom. Lastly, implementing a distributed leadership model will enable departmental heads and teacher leaders to co-design, test and refine EE initiatives within their schools.

For future research, longitudinal studies are essential to evaluate the lasting effects of training on teacher practices and student entrepreneurial skills. Broader, multi-stakeholder investigations, including the perspectives of learners, parents and community mentors, would provide a more comprehensive understanding of EE implementation dynamics. Comparative studies across districts with different levels of urbanisation and resource profiles could further clarify how context influences the relative importance of internal and external supports. Such efforts will validate and expand our findings and guide the development of scalable, context-responsive EE strategies that can nurture sustainable entrepreneurial mindsets among South African youth.

7. Declarations

Author Contributions: Conceptualisation (N.B.E. & J.H.); Literature review (N.B.E., J.H. & M.M.); methodology (J.H. & M.M.); software (N/A); validation (J.H. & M.M.); formal analysis (N.B.E. & J.H.); investigation (N.B.E.); data curation (N.B.E.) drafting and preparation (N.B.E. & J.H.); review and editing (J.H. & M.M.); supervision (J.H. & M.M.); project administration (N.B.E. & J.H.); funding acquisition (N/A.). All authors have read and approved the published version of the article.

Funding: This research did not receive any external funding.

Acknowledgements: The Authors declare no acknowledgements.

Conflicts of Interest: The authors declare no conflict of interest.

Data Availability Statement: The data supporting the findings of this study are available from the corresponding author upon reasonable request. Access will be granted to researchers who meet the criteria for data sharing established by the institutional review board or ethics committee.

References

- Ajani, O. A. (2023). Challenges of school resources management for curriculum delivery in South African rural high schools: Principals' perceptions on the way forward. *International Journal of Research in Business & Social Science*, 12(6), 275–285. <https://doi.org/10.20525/ijrbs.v12i6.2709>
- Akombelwa, D. M. M. (2018). *Children's right to education: A case of school fee policies in South Africa*. [Unpublished doctoral dissertation, University of KwaZulu-Natal].
- Alakaleek, W., Harb, Y., & Harb, A. A. (2023). The impact of entrepreneurship education: A study of entrepreneurial outcomes. *The International Journal of Management Education*, 21(2), 100800. <https://doi.org/10.1016/j.ijme.2023.100800>
- Allen, S. N. (2022). *Parental involvement: A critical review of the literature on the barriers diverse groups face*. [Unpublished doctoral dissertation, Adelphi University].
- Atobatele, F. A., Kpodo, P. C., & Eke, I. O. (2024). A systematic review of learning community impacts on international student success. *International Journal of Applied Research in Social Sciences*, 6(3), 421–439. <https://doi.org/10.51594/ijarss.v6i3.967>
- Ayvaz-Tuncel, Z., & Çobanoğlu, F. (2018). In-service teacher training: Problems of the teachers as learners. *International Journal of Instruction*, 11(4), 159–174. <https://doi.org/10.12973/iji.2018.11411a>

- Bischoff, K., & Volkmann, C. K. (2018). Stakeholder support for sustainable entrepreneurship - A framework of sustainable entrepreneurial ecosystems. *International Journal of Entrepreneurial Venturing*, 10(2), 172-201. <https://doi.org/10.1504/ijev.2018.092714>
- Brown, L. (2023). *Are entrepreneurship education policies in South Africa effective?* Anzisha.
- Bryman, A., & Cramer, D. (2012). *Quantitative data analysis with IBM SPSS 17, 18 & 19: A guide for social scientists*. Routledge.
- Buratti, N., Sillig, C., & Albanese, M. (2022). Community enterprise, community entrepreneurship and local development: A literature review on three decades of empirical studies and theorizations. *Entrepreneurship & Regional Development*, 34(5-6), 376-401. <https://doi.org/10.1080/08985626.2022.2047797>
- Choi, T., & McLain, R. (2023). Theorising eight enablers (8es) of youth (early-stage) entrepreneurship. *Journal of the International Council for Small Business*, 5(2), 117-128. <https://doi.org/10.1080/26437015.2023.2222551>
- Covaş, L., & Solcan, A. (2018). The study on entrepreneurial education in the university through stakeholder involvement. *Educational Research Journal*, 10(2), 125-136.
- Department of Education (DBE). (2021). *North West no-fee schools*. <https://www.education.gov.za/Portals/0/Documents/Publications/No%20fee%20schools/NW%20No%20Fee%20Schools%202021%20list.pdf?ver=2021-01-20-120725-403>
- Department of Education (DoE). (2008). Report of the task team for the review of the implementation of the National Curriculum Statement. Pretoria: Government Printers.
- Du Toit, A., & Kempen, L. (2020). Entrepreneurship education in South African schools: A critical review. *South African Journal of Education*, 40(2), 123-135. <https://doi.org/10.1080/18146627.2020.1868074>
- Floris, M., Dettori, A., & Reginato, E. (2023). Budding entrepreneurs. The role of University in spreading early entrepreneurial mindset in school kids. *National Accounting Review*, 5(1), 86-107. <https://doi.org/10.3934/nar.2023006>
- Forcher-Mayr, M., & Mähknecht, S. (2020). A capability approach to entrepreneurship education: The sprouting entrepreneurs programme in rural South African schools. *Discourse and Communication for Sustainable Education*, 11(1), 119-133. <https://doi.org/10.2478/dcse-2020-0011>
- Gangiah, S. (2024). ThriveZA Nurturing sustainable entrepreneurship for South African youth: A review. *African Journal of Inter/Multidisciplinary Studies*, 6(2), 1-15. <https://doi.org/10.51415/ajims.v6i1.1336>
- García-Rodríguez, F. J., Gutiérrez-Taño, D., & Ruiz-Rosa, I. (2022). Parents' support for children's entrepreneurial behaviour: Incentivising the next generation of entrepreneurs. *International Journal of Entrepreneurial Behaviour & Research*, <https://doi.org/10.1108/ijeb-05-2022-0452>
- Ghina, A. (2014). Effectiveness of entrepreneurship education in higher education institutions. *Procedia - Social and Behavioural Sciences*, 115, 332-345. <https://doi.org/10.1016/J.SBSPRO.2014.02.440>
- Godfrey-Kalio, I. A., Kalio, G. A., & Ndifon, R. A. (2017). Instructional resources and teachers' facilitation of skill-based subjects on attainment of entrepreneurial skills by junior secondary learners in Rivers East Educational Zone, Nigeria. *Direct Research Journal of Social Science and Educational Studies*, 4(2), 19-24.
- Hallinger, P. (2005). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, 33(3), 329-351. <https://doi.org/10.1080/0305764032000122005>
- Hämäläinen, M., Ruskovaara, E., & Pihkala, T. (2018). Principals' utilization of external stakeholders in entrepreneurship education: Evidence from general education. *Eesti Haridusteaduste Ajakiri = Estonian Journal of Education*, 6(2), 104-117. <https://doi.org/10.12697/eha.2018.6.2.05b>

- Hardie, B., Highfield, C., & Lee, K. (2022). Attitudes and values of teachers and leaders towards entrepreneurship education. *Research Papers in Education*, 38(4), 690–714. <https://doi.org/10.1080/02671522.2022.2028891>
- Katewa, E., & Heystek, J. (2018). Instructional and distributed self-leadership for School Improvement: Experiences of schools in the Kavango Region. *Africa Education Review*, 16(2), 69–89. <https://doi.org/10.1080/18146627.2016.1267575>
- Kim, G. M., & Ju, S.-W. (2024). The impact of learning competency factors of entrepreneurship education on entrepreneurship efficacy and will to start a business: Focusing on young prospective entrepreneurs. *Asia-Pacific Journal of Convergent Research Interchange*, 10(1), 155-171. <https://doi.org/10.47116/apjcri.2024.01.14>
- Kirori, M., & Dickinson, D. (2020). Not a panacea, but vital for improvement? Leadership development programmes in South African schools. *South African Journal of Education*, 40(1), 1–11. <https://doi.org/10.15700/saje.v40n1a1625>
- MacKinnon, G. R. (2019). Preparing instructional leaders: Evaluating a regional program to gauge perceived effectiveness. *International Journal of Education Policy and Leadership*, 14(1), 1–20. <https://doi.org/10.22230/ijep.2019v14n1a866>
- Mahlangu, P., & Pitso, T. (2021). Curriculum reforms and their impact on the delivery of entrepreneurship education in South Africa. *Education and Training Review*, 45(3), 78-95.
- Maka, L. (2023). *Entrepreneurship education in South Africa: Policy implementation and impact on youth empowerment*. [Unpublished master's thesis, University of the Free State].
- Mamabolo, A. (2020). The influence of school principals as potential entrepreneurial leaders on the emergence of entrepreneurial activities for school funding. *South African Journal of Education*, 40(4), 1–15. <https://doi.org/10.15700/saje.v40n4a2040>
- Mankgele, K. (2023). The influence of distributed leadership on the improvement of entrepreneurial subjects in secondary schools in Capricorn District, South Africa. *AJMESC*, 3(3), 43–57. <https://doi.org/10.98765/ajmesc.v3i03.370>
- Maponya, T. J. (2020). The instructional role of the school principal on learners' academic achievement. *African Educational Research Journal*, 8(2), 183-193. <https://doi.org/10.30918/AERJ.82.20.042>
- Maritz, A. (2017). Illuminating the black box of entrepreneurship education programmes: Part 2. *Education + Training*, 59(5), 471–82. <https://doi.org/10.1108/ET-02-2017-0018>
- Marongwe, N., & Mutesasira, G. (2024). Harnessing parental involvement and educational equity for sustainable development in South African schools. *Interdisciplinary Journal of Sociality Studies*, 4, 1-15. <https://doi.org/10.38140/ijss-2024.vol4.24>
- Mestry, R. (2020). Financing school education: Linking resources and learning. *South African Journal of Education*, 40(4), 1–5. <https://doi.org/10.15700/saje.v40n4editorial>
- Meung, H. (2023). Entrepreneurial leadership in education: Fostering innovation and creativity. *Journal of Asian Multicultural Research for Educational Study*, 4(3), 20–30. <https://doi.org/10.47616/jamres.v4i3.458>
- Miço, H., & Cungu, J. (2023). Entrepreneurship education, a challenging learning process towards entrepreneurial competence in education. *Administrative Sciences*, 13(1), 1–22. <https://doi.org/10.3390/admsci13010022>
- Mkala, M., & Wanjau, K. (2018). The role of training resources in implementation of entrepreneurship education programme in technical training institutions in Kenya. *Business Management Review*, 21(2), 1-13. <https://bmr.udsm.ac.tz/index.php/bmr/article/view/87>
- Mlambo, V. H., Mbongwa, L., & Khambule, T. (2024). Cultivating the future: The importance of entrepreneurship education in South Africa's basic education sector. *Asian Journal of Management Entrepreneurship and Social Science*, 4(4) 1-20. <https://ajmesc.com/index.php/ajmesc>

- Mokoena, S. (2018). The role of stakeholder involvement in promoting entrepreneurship education in secondary schools. *South African Journal of Education*, 38(1), 1-14.
- Nariswari, A. S. W. C., & Sutopo, S. (2024). The implication of entrepreneurship education, motivation, role models on student intention of entrepreneur in higher education. *Manfaah Journal of Management*, 2(1), 1-14. <https://doi.org/10.30993/manfaah.v2i01.389>
- Nguyen, Q. D., & Nguyen, H. T. (2023). Entrepreneurship education and entrepreneurial intention: The mediating role of Entrepreneurial Capacity. *The International Journal of Management Education*, 21(1), 100730. <https://doi.org/10.1016/j.ijme.2022.100730>
- Ntsanwisi, P., & Simelane-Mnisi, K. (2024). Resource constraints in promoting entrepreneurship education in South African schools. *Journal of Education*, 44(1), 33-47.
- Núñez-Canal, M., Sanz Ponce, R., Azqueta, A., & Montoro-Fernández, E. (2023). How effective is entrepreneurship education in schools? An empirical study of the new curriculum in Spain. *Education Sciences*, 13(7), 1-17. <https://doi.org/10.3390/educsci13070740>
- Nyamboga, T. O. (2024). Sustainable development through competence-based education strategy: Empowering learners' progression for self-reliance. *Newport International Journal of Current Issues in Arts and Management*, 5(2), 8-22. <https://doi.org/10.59298/NIJCIAM/2024/5.2.182400>
- Ogina, T. A. (2017). Leadership identities, attributes and roles of Primary School Principals: A South African case study. *Journal of Social Sciences*, 50(1-3), 153-161. <https://doi.org/10.1080/09718923.2017.1311732>
- Othman, I. W., Yusoff, M. S., & Kamal, M. H. M. (2023). Addressing unemployment issues and the role of universities as platforms for graduate employability. *International Journal of Academic Research in Business & Social Sciences*, 13(12), 1-39. <http://dx.doi.org/10.6007/IJARBSS/v13-i12/19698>
- Park, Y. (2024). *The role of education in fostering entrepreneurial skills and mindsets*. Preprint: Research Square, 1-11. <https://doi.org/10.21203/rs.3.rs-3990800/v1>
- Pidduck, R. J., Clark, D. R., & Lumpkin, G. T. (2021). Entrepreneurial mindset: Dispositional beliefs, opportunity beliefs, and entrepreneurial behaviour. *Journal of Small Business Management*, 64(4), 1-35. <https://doi.org/10.1080/00472778.2021.1907582>
- Qwabe, T., Ngibe, M., & Bingwa, L. L. (2025). Entrepreneurship education is key in promoting entrepreneurial intent: Undergraduate students' perspectives. *Open Journal of Business and Management*, 13(2), 1065-1092. <https://doi.org/10.4236/ojbm.2025.132057>
- Radko, N., Belitski, M., & Kalyuzhnova, Y. (2022). Conceptualising the entrepreneurial university: The stakeholder approach. *Journal of Technology Transfer*, 47(5), 1428-1448. <https://doi.org/10.1007/s10961-022-09926-0>
- Ramchander, G. (2019). Challenges in the implementation of entrepreneurship education in South African schools. *African Educational Review*, 16(2), 134-150.
- Riviezzo, A., Venesaar, U., Duarte, H., Civil, T., Antonelli, G., & Dorożyński, T. (2023). Developing entrepreneurship competence in academia: Emerging needs in Estonia, Finland, Italy, Poland, and Portugal. In *The Impact of HEIs on Regional Development: Facts and Practices of Collaborative Work with SMEs*, 144-161. IGI Global. <https://doi.org/10.4018/978-1-6684-6701-5.ch009>
- Robinson, C. D. (2022). A framework for motivating teacher-student relationships. *Education Psychology*, 34(12), 2061-2094. <https://doi.org/10.1007/s10648-022-09706-0>
- Safitri, A. N., & Nugraha, J. (2022). The effect of entrepreneurship motivation and subjective norms on entrepreneurship intention through entrepreneurship education. *Jurnal Ekonomi Dan Bisnis*, 25(2), 244-260. <https://doi.org/10.24914/jeb.v25i2.4440>
- Schachtebeck, C., & Tselepis, T. J. (2023). Developing the competencies of envisioning and constructing through entrepreneurship education. In *Delivering Entrepreneurship Education in Africa: New Perspectives*, 77-119. Emerald Publishing Limited. <https://doi.org/10.1108/978-1-83753-326-820231004>

- Serafin, C. (2019). Pedagogical preparation of future teachers of practical teaching. *13th International Technology, Education and Development Conference, INTED Proceedings*, 1, 255–264. Valencia, Spain, 11-13 March 2019. <https://doi.org/10.21125/inted.2019.0129>
- Shabalala, N. P., Hebe, H., & Mnguni, L. (2023). Characterisation of curriculum leadership by South African school leaders and teachers in environmental education. *Problems of Education in the 21st Century*, 81(3), 401-415. <https://doi.org/10.33225/pec/23.81.401>
- Sivabalan, Y., Pek, L. S., Nadarajan, N. T. M., Khusni, H. K., Mee, R. W. M., & Ismail, M. R. (2024). Parental involvement on children's educational achievement: A scoping review. *International Journal on Studies in Education*, 6(4), 555-574. <https://doi.org/10.46328/ijonse.242>
- Soler-Domínguez, A., Matallín-Sáez, J.C., Morales, L., & Pop, L. (2024). Developing learners' entrepreneurial mindset. In *INTED2024 Proceedings*, 4931-4936. <https://doi.org/10.21125/inted.2024.1278>
- Sun, J.-M., Shi, J., & Zhang, J. (2023). From entrepreneurship education to entrepreneurial intention: Mindset, motivation, and prior exposure. *Frontiers in Psychology*, 14, 954118. <https://doi.org/10.3389/fpsyg.2023.954118>
- Tam, A. (2018). Conceptualising distributed leadership: Diverse voices of positional leaders in early childhood education. *Leadership and Policy in Schools*, 18(14), 701-718. <https://doi.org/10.1080/15700763.2018.1513156>
- Tamam, B., Kusumadewi, R. A., & Anggraeni, P. (2022). Study on lecturer characteristics to support the effectiveness of entrepreneurship education at university. *International Journal of Educational Management and Innovation*, 4(2), 99-114. <https://doi.org/10.12928/ijemi.v4i2.7749>
- Uleanya, C. (2018). Comparative rural university students' demography nexus learning abilities. *Gender and Behaviour*, 16(3), 12035-12053. <https://hdl.handle.net/10520/EJC-13668da887>
- Wang, X. (2020). Research on enhancing the effectiveness of entrepreneurship education with entrepreneurship practice as a carrier. *Creative Education*, 11(3), 204-214. <https://doi.org/10.4236/CE.2020.113021>
- Worthing-Smith, M. (2018). *The conceptual framework for the entrepreneurial mindset that underpins the pedagogy of the SA schools' curriculum*. Department of Basic Education, RSA.
- Xaba, M. I. (2016). School leadership and entrepreneurship education: Exploring the intersection. *Journal of Educational Leadership and Management*, 32(2), 112-130.
- Zouita, M. S. (2021). The impact of entrepreneurship on economic growth in 95 developing and emerging countries. *Scientific Annals of Economics and Business*, 68(2), 145-162. <https://doi.org/10.47743/saeb-2021-0014>

Disclaimer: The views, perspectives, information, and data contained within all publications are exclusively those of the respective author(s) and contributor(s) and do not represent or reflect the positions of ERRCD Forum and/or its editor(s). ERRCD Forum and its editor(s) expressly disclaim responsibility for any damages to persons or property arising from any ideas, methods, instructions, or products referenced in the content.