



The Perceptions of Teachers Regarding the Implementation of Competence-Based Curriculum in Public Primary Schools in Dar Es Salaam City Council

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Abstract : The study explored the perceptions of teachers regarding the implementation of competence-based approaches in public primary schools in Dar es Salaam City Council. An exploratory sequential mixed methods design was employed in this study. Detailed information was collected from 16 teachers selected through simple random technique in Dar es Salaam City Council. Moreover, questionnaires and key informant interviews were used to collect data. Quantitative data were analysed by using IBM SPSS version 25 whereby descriptive univariate analyses were performed to inspect the frequency distributions of variables while qualitative data were subjected to content analysis. The findings indicate that majority of the teachers were familiar with the new competency-based approach. The findings indicated further that teachers had a positive perception on the impact of the new vocational curriculum. The main challenges encountered by teachers in implementing a competence-based curriculum included lack of frequent training and inadequacy of teaching and learning resources. The study recommends that ensuring availability of necessary resources and materials is essential in order to instill entrepreneurial skills to pupils.

Keyword : Competence, curriculum, Competence-based curriculum, teacher, school

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INTRODUCTION

Competence-based learning is increasingly recognized for fostering innovation and self-reliance across the world (OECD, 2020; UNESCO, 2020). The successful implementation of the competence-based curriculum is thus imperative for the advancement of individuals and society at large. Among of the benefits of the competence-based curriculum is that it instills entrepreneurial skills to children which in long run would assist much in addressing youth unemployment and bringing about economic development (African Union, 2015). In primary schools, the implementation of Competence-Based Curriculum (CBC) has aimed at developing practical competencies among students which in turn will help them to be self-reliant and be able to perform work-related tasks (URT, 2023).

In practice, the competence-based curriculum emphasizes learners to do rather than just to know. This curriculum aims to develop practical skills, such as critical thinking, problem-solving, and collaboration, that are essential for success in the modern world (UNESCO, 2020). It is a transformative approach empowers learners to apply their knowledge and skills in real-world contexts, preparing them for the challenges and opportunities of the 21st century as it underscores a paradigm shift in educational philosophy, moving away from rote memorization towards a

more dynamic and learner-centered approach (UNESCO, 2020).

Tanzania has adopted a Competence-Based Curriculum (CBC) to shift the focus from knowledge acquisition to the development of these competencies. This transition involves rethinking teaching and assessment methods to prioritize the demonstration of skills. The implementation of the Competence-Based Curriculum in Tanzania represents a significant step towards aligning the education system with the demands of the labor market and the broader goals of national development (URT, 2023).

However, the effective implementation of the competence-based curriculum in particularly in primary schools faces challenges. The challenges include, lack of teachers' trainings, lack of resources such as books, computers and other relevant materials, and absence of assessment methods that align with the development of competencies. This study sought to examine the perception of teachers toward the implementation of the Competence-Based Curriculum in the selected primary schools in Dar es Salaam City Council, in Dar es Salaam Region, Tanzania.

Research Objectives

1. To describe the extent to which entrepreneurial skills are being implemented in daily teaching and learning practices in public primary

- schools in Dar es Salaam City Council
2. To explore the perceptions of teachers in public primary schools in Dar es Salaam City Council regarding specific aspects of the implementation of competence-based approaches
 3. To identify the key strategies that may influence success or constraint in implementing elements of the new Tanzanian vocational curriculum in public primary schools in Dar es Salaam City Council.

Statement of the problem

Tanzania's efforts to integrate vocational elements, including entrepreneurial skills and competence-based approaches, into the primary school curriculum aim to equip children with practical skills and adaptability for the 21st-century world. However, the on-the-ground implementation of these elements in public primary schools, particularly in Dar es Salaam City, is so far not well understood. While national policies outline the vision, there is limited information on how this vision is translated into daily teaching and learning practices and lessons we are learning from the practice in Dar es Salaam City Council schools.

Dar es Salaam City Council, with its specific socio-economic and environmental context, provides a relevant setting for this investigation. Factors such as resource limitations,

teacher preparation, and community attitudes can influence the implementation of these reforms. A lack of enough empirical data on the implementation of entrepreneurial skills and competence-based approaches in Dar es Salaam City Council's public primary schools hinders the ability of educators, policymakers, and stakeholders to make informed decisions and provide effective support.

There is a need to explore the extent to which these vocational elements are integrated into daily teaching and classroom practice, the strategies and resources teachers use, and the challenges they face. Understanding the perspectives of pupils, teachers, and parents is also crucial for informing efforts to make primary education more relevant and transformative. This study aims to address this gap by examining the implementation of the new Tanzanian vocational curriculum, with a focus on entrepreneurial skills and competence-based approaches, in Dar es Salaam City Council.

Literature review

1. Theoretical Framework

Sociocultural Theory developed by Lev Vygotsky (1896-1934) guided this study, which emphasizes social interaction and cultural context in learning. The study used this theory to address the three research objectives. This theory emphasizes on the crucial role played by social interaction and

cultural context in learning. The theory was applied initially in the field of entrepreneurial skills and competence-based approaches to address their implementation in public primary schools in Dar es Salaam City Council.

2. Empirical Literature Review

a. Implementation of Entrepreneurial Skills in Daily Teaching and Learning Practices

In advanced education systems such as the United States, the integration of entrepreneurial skills into secondary education has been actively explored, with several studies examining the impact on pupil engagement and skill development. Mueller and Anderson (2020) conducted a large-scale study in New York and California, analyzing the effects of entrepreneurial projects such as "start-up simulation weeks" on high school pupils. The study revealed that schools which embedded these projects into their curriculum observed a 27% improvement in critical thinking and problem-solving skills. The hands-on, project-based approach to teaching entrepreneurship encouraged pupils to engage more deeply with their subjects and to develop a mindset focused on innovation and self-reliance.

In Sweden, Johansson and Svensson (2020) conducted a study examining the role of entrepreneurial education in secondary schools, particularly focusing on the benefits of integrating entrepreneurial tasks, such as running mini-companies, into the

curriculum. Their findings revealed that pupils who participated in these activities showed significant improvements in leadership, creativity, and collaboration. Approximately 82% of the participants reported feeling more responsible and confident in their abilities to lead teams and manage projects. These findings reflect the growing recognition in Sweden that entrepreneurship education provides more than just business knowledge; it equips pupils with the leadership and interpersonal skills needed to thrive in a rapidly changing world.

Sow and Diop (2022) conducted research in Senegal, focusing on how urban secondary schools were incorporating entrepreneurial education. Their study found that daily entrepreneurship lessons, which included case studies of successful local businesses and practical business planning exercises, improved pupils' financial literacy and business strategy skills. The study showed that pupils were more confident in their ability to start their own businesses, and many had already initiated small ventures before graduation. This finding underscores the value of providing pupils with the tools and knowledge to succeed in an increasingly entrepreneurial global economy.

In Kenya, Mwangi and Kimani (2020) examined the role of entrepreneurial clubs integrated into secondary school curriculums in Nairobi. Their study revealed that pupils who participated in these clubs

demonstrated increased leadership skills, better problem-solving abilities, and a greater understanding of business concepts. The club activities, which involved real-time business challenges, allowed pupils to develop a hands-on understanding of entrepreneurship, which was essential for preparing them for future careers. The study also emphasized the importance of encouraging pupils to take risks and think critically about business opportunities, as these are key components of entrepreneurial success.

In Tanzania, the integration of entrepreneurial education into primary schools has been focused by several studies, with a significant amount of research emphasizing the importance of embedding entrepreneurial skills into daily learning practices. Mbise (2019) conducted a study in Dar es Salaam, revealing that schools incorporating entrepreneurial activities, such as school markets and business idea competitions, helped pupils develop not only entrepreneurial knowledge but also practical skills like marketing, budgeting, and financial management. This hands-on approach to learning enhanced the pupils' readiness to start their own businesses and improved their employability prospects.

Likewise, Mwakabuta (2020) studied rural Tanzanian secondary schools and highlighted the challenges faced by these schools in effectively implementing entrepreneurial education. While limited resources

were a constraint, Mwakabuta found that schools that made efforts to introduce entrepreneurial elements, such as community-based agricultural projects, were able to foster critical thinking and innovation among pupils. Despite the challenges, the study demonstrated that entrepreneurship education had the potential to significantly empower pupils and prepare them for the workforce or self-employment.

b. Enhancing Perceptions with Competence-Based Approaches (CBA)

Competence-based approaches (CBA) have gained significant attention in the global education landscape due to its focus on developing pupils' skills and competencies rather than merely imparting theoretical knowledge. By emphasizing practical application and mastery of real-world tasks, CBA aims to align educational outcomes with the demands of the labor market.

Research by Gonzalez and Rivera (2023) on CBE in vocational education settings in the U.S. highlighted how CBA enhance learners' ability to solve real-world problems by providing hands-on experiences, case studies, and industry-based projects. The study demonstrated that pupils engaging with CBA reported higher levels of confidence and preparedness for employment, as they could directly link their education to industry needs.

In Tanzania, the implementation of competence-based education has been part of a broader reform effort aimed at improving the quality of education. Research by Ndimbo (2021) on the introduction of CBA in Tanzanian secondary schools found that the approach had a positive impact on pupil learning experiences. The study highlighted that pupils were more engaged in lessons that emphasized hands-on activities and real-world applications. Teachers also reported that CBA allowed for more meaningful assessment methods that focused on pupils' actual abilities, rather than rote memorization. However, the study also pointed to challenges in providing adequate training for teachers and ensuring that learning materials and resources were available to support the implementation of CBA.

In addition, Ndimbo (2021) conducted a case study on the role of entrepreneurial education in Tanzanian secondary schools and its link to competence-based learning. The research revealed that integrating entrepreneurship education into the curriculum allowed pupils to develop both business acumen and the soft skills necessary for entrepreneurial success. The study concluded that CBA not only helped pupils build practical skills but also fostered an entrepreneurial mindset, which is crucial for economic development in Tanzania. The research also suggested that further government support in the

form of resources and teacher training was necessary to fully realize the potential of CBA in the country.

c. Strategies for Successful Implementation

The successful implementation of competence-based approaches (CBA) relies on a multifaceted approach that integrates strategic planning, teacher professional development, resource allocation, and a commitment to continuous assessment and feedback. At the core of CBA is the focus on developing pupils' practical competencies and skills, which necessitates a shift from traditional education models that prioritize knowledge transfer to ones that emphasize experiential learning, problem-solving, and hands-on activities. Several strategies can facilitate this transition, from creating a supportive policy environment to ensuring that teachers are equipped with the necessary tools and training to implement CBA effectively.

In the United States, successful implementation of CBA in higher education and vocational training programs has been supported by policy reforms and increased investment in educational technologies. A key strategy identified by Smith and Thomas (2020) is the alignment of educational standards with industry requirements to ensure that pupils acquire the skills most demanded in the job market. This approach has been particularly effective in technical

education, where CBA allows pupils to gain certifications and qualifications that are directly applicable to specific occupations. Moreover, partnerships between educational institutions and industries have provided valuable resources, such as internships, apprenticeships, and real-world case studies, that are integral to the CBA model. Educational technology platforms have also played a significant role by providing digital tools for competency tracking, assessments, and feedback, making it easier for both educators and pupils to monitor progress and adjust learning pathways as needed (UNESCO, 2019).

Choi and Kim (2022), reported that one of the critical strategies for the successful implementation of CBA in South Korean schools is the incorporation of technology into teaching and learning. Digital platforms, online simulations, and collaborative tools are increasingly used to enhance pupils' learning experiences and to assess competencies in real-time. Furthermore, continuous professional development for teachers has been highlighted as a key strategy, as educators must stay updated on best practices for facilitating CBA in the classroom. Collaboration with local industries and businesses also provides pupils with the opportunity to gain practical experience and acquire industry-relevant skills.

Also, a study by Sow and Diop (2022) in Senegal highlighted that one of the most effective strategies for

promoting CBA in West African countries is the adaptation of the curriculum to local contexts. This approach ensures that the competencies being taught are relevant to the socio-economic needs of the region. In Senegal, for example, a partnership between schools and local businesses has enabled pupils to gain practical experience in entrepreneurship, agriculture, and technology. Moreover, community-based approaches, where local stakeholders are actively involved in the education process, have proven effective in overcoming some of the resource challenges. The availability of digital tools and mobile learning resources has also played a crucial role in expanding access to CBA, particularly in rural areas where traditional resources are scarce (UNESCO, 2017)

In Tanzania, the government has made significant progress in introducing CBA into the education system through the National Education Curriculum Framework. According to Ndimbo (2021), the introduction of CBA has been accompanied by the development of comprehensive teacher training programs that focus on equipping educators with the skills to facilitate pupil-centered learning. Additionally, the government has invested in the creation of educational resources, such as textbooks and digital content, tailored to CBA's requirements. However, the study also highlighted the need for continuous

support in terms of funding and infrastructure to ensure the sustainability of CBA in Tanzanian schools. Furthermore, partnerships with local industries and international organizations have been instrumental in providing the resources needed to implement CBA effectively.

METHODOLOGY

This study was conducted in the selected primary schools of the Dar es Salaam City Council. The study used a mixed-methods approach where both qualitative and quantitative methods were employed to analyze the perception of teachers regarding the implementation of the competence-based curriculum. A simple random sampling technique was employed in selecting sample for the sake of ensuring that the sample was representative. The sample size for the study was 16 teachers. This study utilized a variety of research instruments to collect both quantitative and qualitative data, ensuring a comprehensive approach to data collection. Questionnaires was the primary tool for collecting quantitative data from teachers regarding the implementation of the new Tanzanian curriculum in public primary schools. Likewise, interview was used to collect data from the respondents, this was done through the interview guide.

To ensure content validity, the research instruments (questionnaires and interview guides) underwent a review by experts in the fields of

education and curriculum implementation. The expert review process involved sending the instruments to academic professionals or experienced researchers who can assess whether the items effectively measure the intended concepts (Kothari, 2021). This review ensured that the instruments align with the research objectives and accurately capture relevant aspects of the implementation of the new Tanzanian curriculum. To ensure the reliability and trustworthiness of the research instruments, a pilot study was conducted prior to the main data collection. The pilot study was carried out in one primary school in Dar es Salaam City Council, involving a small sample of teachers. This pilot helped identify any issues with the instruments, such as unclear or ambiguous questions, and allow for the refinement of the tools.

The data collected were analyzed using both quantitative and qualitative methods to provide a comprehensive understanding of the implementation of elements of the new Tanzanian vocational curriculum in public primary schools in Dar es Salaam City Council. The quantitative data, collected from the pupil questionnaires, were analyzed using Statistical Package for the Social Sciences (SPSS). Descriptive statistics, such as frequencies, percentages, and means, were used to summarize the data and identify general trends in teachers experiences with the new

curriculum. For the qualitative data collected through interviews with teachers, thematic analysis was employed.

RESULT AND DISCUSSION

Findings

1. Familiarity with the New Competence-based Curriculum

Teachers in the surveyed schools were asked to state their familiarity level with the new competency-based approach. The findings are summarized in table 1 below.

Table 1. Teacher's Familiarity with the New Competence-based Approach

Response	Frequency (f)	Percentage (%)
Very familiar	12	75
Somewhat familiar	4	25
Not familiar at all	0	0
Total	16	100

Source: Field data, 2025

The findings in table 1 regarding the familiarity of teachers with the new competence-based approach indicate that majority of the teachers 12 (75%) were very familiar with the new competence-based approach. Four teachers equivalent to (25%) claimed that they were somewhat familiar with the new competence-based approach. No respondent claimed to be totally unfamiliar with the new-competence-based approach. According to these findings, it can therefore be deduced that, teachers in primary schools are

aware of the new competence-based approach. This is encouraging as it suggests that they can use such knowledge to impart various skills to pupils. The findings are in agreement with Mpate, (2023) whose study concluded that teachers are aware of the competence-based approach in teaching and learning.

2. Teachers' Perception on the Impact of Competence-based Curriculum on Pupils' Learning

Teachers were asked to state how impactful was the competence-based curriculum on pupils' learning. Their responses are summarized in Table 2 below.

Table 2. Respondents' Views on the Impact of the New Vocational Curriculum on Pupils' Learning

Response	Frequency (f)	Percentage (%)
Very positive	6	38
Positive	8	50
Neutral	2	12
Negative	0	0
Total	16	100

Source: Field data, 2025

Findings in table 2 above illustrates teachers about 6 (38%) who were interviewed admitted that the new vocational curriculum implemented in primary schools was very positive in pupils learning. The results also revealed that most of the teachers 8 (50%) said the new vocational curriculum had positive impact on pupils' learning while few of them about 2 (12%) were neutral with

the impact of the new vocational curriculum on pupils' learning. From the findings it has been noted that most of the teachers perceive the new vocational curriculum to have positive impact on pupils' learning. The same perception was reported by Akinrinola (2020), who made an emphasize that various education stakeholders including teachers have a positive perception on the impacts of the new vocational curriculum on pupils' learning.

3. Challenges Encountered by Teachers while Implementing Competence-Based Curriculum

During interview, a question was asked to indicate the challenges they faced during the implementation of the competence-based curriculum. The following explanations were provided:

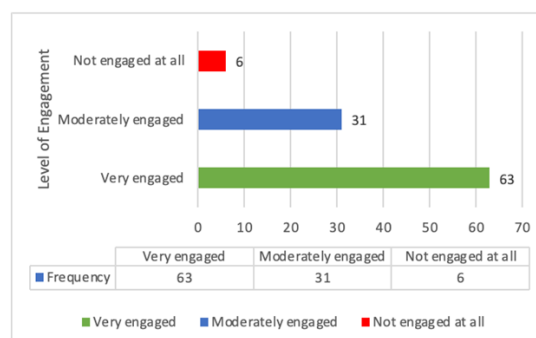
“There are many challenges in implementing the competence-based curriculum, the most common ones include lack of training and inadequacy of resources such as books and computers. It is my belief that if these challenges are resolved the intended goals of this new curriculum will be met”. (A key informant interview, August, 2025).

These findings indicate that teachers face many challenges in implementing the competence-based curriculum. The findings are in agreement with those of Mwakabuta (2020) whose findings indicated that

teachers in primary schools face a number of challenges in implementing the new competency-based curriculum. The challenges included lack of teachers training and resources.

4. Teachers Perception on Pupils' Response to the Competence-Based Approach

Understanding pupils' response to the competence-based approach was also an important aspect to know. This is because both negative and positive perceptions have implications on students learning and future applicability of the skills gained. Hence, teachers were requested to state their perception on pupils' response to the competence-based approach. The results are shown in figure 1 below.



Source: Field data, 2025

Figure 1. Teachers' Perception on Pupils' Response to the Competence-Based Approach

From the findings indicated in figure 1 above, majority of the respondents 10 (63%) perceived that pupils were very engaged and had a positive perception on the competence-based approach. This was followed by 5 (31%) respondents who opined that

pupils were moderately engaged in the competence-based approach. One respondent (6%) said pupils were not engaged at all with the competence-based approach. The general interpretation of these results is that teachers perceive that pupils are highly engaged in the implementation of the new competence-based approach as suggested by majority of them. Generally, the same perception has been reported by Akinrinola, (2020) whose research found that pupils are highly engaged in the competence-based approach.

5. The status of resources for teaching the Competence-based curriculum

In order to set good strategies that would ensure successful implementation of the new vocational curriculum in primary schools, teachers were asked to state the extent at which resources for implementing the new vocational curriculum are available in their schools. The results are summarized in table 3 below.

Table 3. Available Resources for Teaching the New Vocational Curriculum

Response	Frequency (f)	Percentage (%)
Adequate resources	9	56
Limited resources	5	31
No resources available	2	13
Total	16	100

Source: Field data, 2025

The findings in table 3 above indicate that majority of the teachers 9 (56%) said the resources for implementing successful the competence-based curriculum were adequately available in their schools. Also, 5 (31%) respondents said there were limited resources a situation that hampered effective implementation of the competence-based curriculum. In addition, few respondents 2 (13%) said there were no resources available to implement the new competence-based curriculum. According to these findings, it is evident that in primary schools' resources for implementing the competence-based curriculum are available, however, more efforts to ensure fully availability of the required resources is still needed (World Bank, 2021 and Mwakabuta, 2020).

6. Strategies for Overcoming the Challenges in Implementing the Competence-Based Curriculum

During interview, head teachers were requested to provide strategies for overcoming the challenges in implementing the vocational curriculum.

a. Head Teacher at School 1

"It is crucial for universities and colleges to prepare teachers who will teach effectively the new curriculum. This will enable pupils to acquire relevant skills" (Key-informant interview, August, 2025)

b. Head Teacher at School 2

“In order to overcome the challenges facing the implementation of the vocational curriculum it is important to ensure that necessary resources such as books and computers are available all the time. Also, teachers should be provided with frequent seminars and trainings aiming at providing knowledge on the ways of implement the new curriculum” (Key-informant interview, August, 2025).

CONCLUSION

Generally, with the new curriculum, entrepreneurial skills are fully integrated into teaching and learning practices in primary schools and teachers are very familiar with the new competency-based approach. However, the main challenge hindering teachers in implementing a competence-based curriculum include lack of frequent training and inadequacy of resources. There is also a nearly equal distribution of parents who are aware and those who are unaware of a new curriculum. The new curriculum has improved academic performance among pupils and has enriched them with several practical skills such as starting business, money management and others. Although, more efforts for pupils, teachers, parents and other stakeholders are needed to ensure that the implementation of the new curriculum in primary schools is undertaken in a smooth way and pupils acquire relevant practical skills.

Recommendations

1. The implementation of the new curriculum in the study schools needs to be intensified by purchasing more necessary resources and materials such as books and computers to instill entrepreneurial skills to pupils.
2. Parents need to make a follow-up of what their children have learnt in schools and assist them when they need to practice the skills they have learnt in schools.

REFERENCES

- Akinrinola, F. (2020). “Competency-Based Education in Africa: Exploring Teachers’ Perceptions, Understanding, and Practices.” *Teacher Education Through Flexible Learning in Africa (TETFLE) 2* (1). <https://doi.org/10.35293/tetfle.v2i1.86>.
- Choi, S., & Kim, H. (2022). The impact of entrepreneurial labs on pupils' innovation capacity in China's secondary schools. *Asia Pacific Journal of Education*, 43(4), 529-542. <https://doi.org/10.1080/02188791.2023.1853501>
- Gonzalez, F. & Rivera, R. (2023). Agricultural entrepreneurship education and its impact on rural school pupils in Mexico. *Journal of Agricultural Education and Extension*, 29(4), 403-416.

- <https://doi.org/10.1080/1389224X.2023.2140389>
- Johansson, L. & Svensson, A. (2020). Teaching entrepreneurial skills in secondary schools in Sweden: Impact on leadership and creativity. *Journal of Entrepreneurship Education*, 23(1), 50-64.
<https://doi.org/10.2139/ssrn.3657525>
- Kouassi, F., & N'Guessan, K. (2019). The role of entrepreneurial education in secondary schools in Côte d'Ivoire. *International Journal of Business and Management Studies*, 11(2), 125-137.
<https://doi.org/10.2139/ssrn.3485290>
- Mpate, H. (2023). Biology teachers' implementation of the competence-based curriculum in Tanzania: challenges and opportunities. *Journal of Biological Education*, 59(1), 16-36.
<https://doi.org/10.1080/00219266.2023.2282428>
- Mueller, J., & Anderson, R. (2020). Impact of entrepreneurial projects on pupil engagement in high schools. *Journal of Entrepreneurship Education*, 23(2), 99-111.
<https://doi.org/10.2139/ssrn.3487773>
- Mwakabuta, P. (2020). Challenges faced by schools in effectively implementing entrepreneurial education. *Business Education Journal*, X(X), pp-pp.
<http://bej.cbe.ac.tz/index.php/bej/article/download/925/76>
- Mwangi, W., & Kimani, F. (2020). Role of entrepreneurial clubs in secondary schools in Nairobi, Kenya. *International Journal of Educational Research*, 58(3), 45-57.
<https://doi.org/10.1016/j.ijer.2020.103430>
- Ndimbo, A. (2021). Entrepreneurial education in Tanzanian urban secondary schools: The role of entrepreneurial clubs. *Journal of African Education Studies*, 10(1), 75-89.
<https://doi.org/10.1080/2151191X.2021.1984796>
- OECD. (2020). Entrepreneurial skills for a changing world: Preparing young people for the future. OECD Publishing.
- Rodriguez, A. (2022). Entrepreneurial education and pupil engagement: A case study of high school pupils in Ontario, Canada. *International Journal of Education Policy and Leadership*, 18(3), 122-134.
<https://doi.org/10.18666/IJEP-2022-234567>
- Smith, J., & Thomas, R. (2020). Agricultural entrepreneurship education and its impact on rural school pupils in Mexico. *Journal of Agricultural Education and Extension*, 29(4), 403-416.
<https://doi.org/10.1080/1389224X.2023.2140389>

- Sow, A., & Diop, I. (2022). Entrepreneurship education in Senegalese urban secondary schools: Challenges and opportunities. *African Education Review*, 8(2), 144-157. <https://doi.org/10.1080/18172144.2022.1867984>
- Wang, L., & Chen, Y. (2023). The impact of entrepreneurial labs on pupils' innovation capacity in China's secondary schools. *Asia Pacific Journal of Education*, 43(4), 529-542. <https://doi.org/10.1080/02188791.2023.1853501>

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