Global Journal of Educational Thoughts
GJET vol.1, no.1, June 2024

Submitted: 1 May 2024
Reviewed: 4 May 2024
Revised: 7 May 2024
Accepted: 8 May 2024

INNOVATIVE EDUCATION: IMPACT, PARTNERSHIPS, AND ALIGNMENT WITH SAUDI ARABIA'S VISION 2030 - A CASE STUDY OF ONE WORLD INTERNATIONAL SCHOOL RIYADH

Alisele Mwigani

One World International School (OWIS), Riyadh.

alisele.mwigani@owis.org

ABSTRACT

This paper examines the impact of innovation in education at OWAIS Riyadh, aligning with Saudi Arabia's Vision 2030. Through interviews with teachers and students, the study investigates two key research questions: How does OWIS Riyadh's use of technological educational tools impact student engagement and learning outcomes? What factors contribute to the success of public-private partnerships at OWIS Riyadh in driving educational innovation? The findings reveal that the integration of high technology educational tools significantly enhances student engagement, collaboration, and academic performance. Effective teacher training programs empower educators to implement innovative teaching methods and adapt to evolving technologies. Public-private partnerships provide resources and expertise, leading to specialised educational programs like the STEM lab (Zero1 Hub). These initiatives align with Vision 2030's goals, positioning OWIS Riyadh as a model for innovative education in Saudi Arabia. The implications suggest informing educational policies, enhancing teacher professional development, influencing curriculum design, guiding school leadership, improving student learning outcomes, and fostering community collaboration for advancing educational innovation and addressing societal needs.

Keywords: *OWIS Riyadh, innovation, technology.*

INTRODUCTION

Background of the Study

Globally, the landscape of education's innovative practices has become increasingly pivotal in driving progress and adapting to evolving learning needs. Initiatives such as online learning platforms, AI-powered tools, and virtual reality simulations have reshaped the way students engage with educational content, fostering interactive and personalised learning experiences (George, 2023). Notably, countries like Finland have been at the forefront of innovative education, implementing digital environments and personalised learning approaches to enhance student outcomes.

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Moving to the Middle East, there has been a significant surge in interest and investment in innovative education to meet the evolving demands of learners. Countries like the United Arab Emirates have made substantial strides in integrating technology into classrooms through initiatives like the Mohammed bin Rashid Smart Learning Program, aimed at preparing students for the digital age and equipping them with relevant skills (Al Arood & Aljallad, 2020).

Vision 2030 stands as a transformative blueprint in Saudi Arabia, focusing on diversifying the economy and enhancing social development. In education, Vision 2030 places a strong emphasis on innovative teaching methods and technology integration to prepare students for future challenges and opportunities (Bunaiyan, 2019). Initiatives such as the Digital Transformation in Education program reflect this vision, aiming to integrate technology seamlessly into teaching and learning processes across schools.

Against this backdrop, One World International School (OWIS) Riyadh emerges as a beacon of innovative education. As part of the Global Schools Group (GSG), OWIS brings a values-centric approach to teaching, offering comprehensive programs that integrate IB and American curricula, while also emphasising digital literacy and 21st-century skills. With a commitment to fostering global citizenship and embracing innovative practices, Ms. Shannon Pipes, the founding school principal of OWIS Riyadh, stated, "*OWIS Riyadh epitomises the transformative potential of education in the context of Vision 2030's goals for Saudi Arabia."*

Objectives of the Study

The objective of the study is to evaluate how OWIS Riyadh's use of technological tools impacts student engagement and learning outcomes in Saudi Arabia, aligned with Vision 2030. It also seeks to identify factors contributing to successful public-private partnerships in driving educational innovation at the school and in the country.

Research Question

1. How does OWIS Riyadh's use of technological educational tools impact student engagement and learning outcomes?

2. What factors contribute to the success of public-private partnerships at OWIS Riyadh in driving educational innovation?

LITERATURE REVIEW

This literature review looked into key aspects shaping education in Saudi Arabia, focusing on the integration of educational technology, alignment of educational goals with national development strategies, emerging trends in teaching through tech, professional development for educators, using STEM for conceptual understanding and the role of public-private partnerships in driving educational initiatives. These themes collectively reflect the dynamic

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landscape of education in Saudi Arabia, highlighting the country's efforts to innovate and align educational practices with broader societal and economic objectives outlined in Vision 2030.

Educational Technology Integration in Saudi Arabia

In recent years, Saudi Arabia has experienced a notable transformation in its approach to education, marked by a substantial shift towards integrating educational technology into its classrooms. This transformation is observable across the country through the widespread adoption of various digital tools designed to enhance the teaching and learning experience.

One prominent aspect of this shift is the increasing use of interactive whiteboards in classrooms. These interactive whiteboards have revolutionised traditional teaching methods by allowing educators in Riyadh and beyond to conduct dynamic and engaging lessons. Through the integration of multimedia elements, real-time interaction, and digital content, teachers can create immersive learning environments that captivate students' attention and foster active participation (Adrini, & Wahyuna, 2023).

According to Abouelnaga et al., (2019), the incorporation of educational software has further enriched the learning experience for students due to educators leveraging a wide range of educational software applications tailored to different subjects and grade levels. These software tools enable teachers to design interactive learning experiences that cater to diverse learning styles, preferences, and abilities. By incorporating multimedia content, interactive exercises, simulations, and gamification elements, educational software helps enhance student engagement and comprehension of academic concepts.

Moreover, the advent of online learning platforms has provided schools and educators with additional avenues to supplement classroom instruction. These platforms offer a wealth of educational resources, including digital textbooks, multimedia content, interactive lessons, and collaborative tools. Students can access these resources anytime, anywhere, allowing for personalized learning experiences and flexibility in their education journey (Kadagidze, 2023).

Alignment of Educational Objectives with National Development Goals

The education system in Saudi Arabia has undergone significant strategic reforms to ensure that educational objectives align with the nation's broader development goals outlined in Vision 2030. These reforms are comprehensive, covering various aspects such as curriculum enhancements, teacher training initiatives, and the integration of key competencies critical for the future workforce (Alabdulaziz, 2019).

One of the key focuses of these reforms is on enhancing critical thinking, digital literacy, and entrepreneurship education within the curriculum. For instance, schools are now incorporating project-based learning approaches that go beyond rote memorization. These approaches encourage students to apply theoretical knowledge to real-world scenarios, fostering creativity and problem-solving skills essential for success in the modern world (Omelianenko, & Artyukhova, 2024).

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Furthermore, teacher training initiatives have been revamped to equip educators with the pedagogical skills and tools necessary to implement these innovative teaching methods effectively. This includes training on how to facilitate project-based learning, integrate digital technologies into lessons, and nurture entrepreneurial mindsets among students.

Professional Development for 21st Century Educators (STEM teachers)

The field of STEM education, encompassing Science, Technology, Engineering, and Mathematics, holds a prominent position in Saudi Arabia's educational priorities. Kayan-Fadlelmula et al., (2022) argues that to bolster STEM education, professional development programs must be tailored specifically for STEM educators. These programs should aim to provide teachers with the necessary pedagogical skills and deep content knowledge required for delivering engaging and effective STEM lessons.

These professional development initiatives often feature a range of activities such as hands-on workshops, collaborative projects, and mentorship opportunities. For instance, STEM teachers actively participate in training sessions where they acquire innovative teaching strategies. They also learn how to seamlessly integrate technology tools, including robotics and coding kits, into their lessons. This integration not only enhances the learning experience but also fosters inquiry-based learning environments that stimulate critical thinking and problem-solving skills among students (Alqahtani, 2022).

Public-Private Partnerships in Educational Initiatives

Public-private partnerships (PPP) have emerged as a strategic approach to driving educational initiatives and enhancing infrastructure in Saudi Arabia. These partnerships leverage the expertise and resources of both public and private sectors to fund and implement innovative educational projects. For example, a PPP initiative may involve a collaboration between a government agency, a technology company, and a local school to establish a STEM lab equipped with state-of-the-art equipment and resources. This partnership not only enhances students' access to advanced learning tools but also creates opportunities for industry-relevant learning experiences and career pathways aligned with workforce demands (Guerrero, et al. 2024).

Summary

The literature review highlights Saudi Arabia's progress in educational technology, aligning goals, and innovative teaching. It sets the context for understanding OWIS Riyadh's strategic position and contributions to Vision 2030's objectives.

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RESEARCH METHODOLOGY

In investigating the impact of technology tools on education at OWIS Riyadh, a robust data collection methodology was employed. This included interviews with teachers and students alongside classroom observations to gain comprehensive insights into teaching practices, student engagement, and learning outcomes influenced by technology.

Data Collection

a) Interviews: Conducted interviews with 5 teachers and 7 students from each section of OWIS Riyadh. The interviews aimed to gather insights into the impact of technology tools on teaching methods, student engagement, and learning outcomes.

b) Observation: Attended 15 classes from k-5 to observe students' learning outcomes influenced by technology. This involved observing how students interacted with technology tools, their level of engagement, and the effectiveness of technology in enhancing their learning experiences.

Data Analysis

a) Interview Analysis: Transcribed and coded interview data to identify key themes related to technology integration, teaching practices, student engagement, and learning outcomes. Used qualitative analysis techniques such as thematic analysis to identify insights from the interviews.

b) Observation Analysis: Recorded observations during classes, noting student interactions with technology, their level of participation, and any observable changes in learning outcomes. Analysed this data to assess the impact of technology on student engagement and academic performance.

Interpretation and Findings

a) Integration of Interview and Observation Data: Integrated findings from interviews and observations has been used to develop a comprehensive understanding of how technology influences teaching and learning at OWIS Riyadh.

b) Deriving Insights: Interpreted the data to derive insights into the effectiveness of technology tools, the role of teacher training in technology integration, student perceptions and experiences with technology, and the overall impact on learning outcomes.

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FINDINGS AND DISCUSSION

This section explores the study's outcomes at OWIS Riyadh regarding technology's impact on student engagement and learning outcomes. It encompasses insights from interviews, observations, and data analysis, highlighting the effectiveness of technology integration, teacher training, partnerships, and alignment with Vision 2030's educational goals

Descriptive Findings

Interview
5 teachers at OWIS Riyadh revealed that the integration of Apple-powered educational tools has significantly enhanced student engagement and learning outcomes. According to one teacher, "*Students are more motivated to participate in interactive lessons and collaborative activities, leading to improved academic performance*." Another teacher highlighted the role of Apple technology in facilitating collaborative learning among students, stating, "*Tools such as iPads, Robot Temi, Omni and the interactive floor have enabled students to work together on projects, share ideas, and collaborate on creative tasks."*

On the same note, the majority of the students explained that learning as fun and interactive. They enjoy collaborating on projects and find the tools useful for reading and understanding lessons. Students with learning disabilities value the customised learning experiences. Younger children particularly enjoy using interactive floors for learning maths, highlighting the engaging nature of the educational tools.

Observation
During my research, I observed 15 classes including Math, Zero1 hub lessons (STEM session), and reading sessions. It was evident that students greatly enjoy learning with gadgets, especially their iPads, and with the robot utilised for teaching in the school.

Discussion

Impact of Technology Tools on Student Engagement and Learning Outcomes
The integration of Apple-powered educational tools at OWIS Riyadh has shown a significant enhancement in student engagement, collaboration, and academic performance. This finding aligns with Ali and Rosli (2019), who emphasised the positive impact of digital technology, particularly Apple tools, on enhancing educational content development and delivery. Additionally, Couch (2023), highlighted the role of Apple technology in supporting learning for students with sensory and learning disabilities, further emphasising its versatility and effectiveness in catering to diverse learning needs.

Teacher Training Programs and Innovative Teaching Methods
Effective teacher training programs at OWIS Riyadh have empowered educators to implement innovative teaching methods successfully. Moreno-Ruiz et al. (2019) support this finding by showcasing the benefits of combining flipped classroom approaches, project-based learning, and formative assessment strategies in enhancing teaching effectiveness and student

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engagement. These strategies align with the personalised learning experiences tailored to students' needs, as observed in the study.

Role of Public-Private Partnerships in Driving Educational Innovation
Public-private partnerships at OWIS Riyadh have been instrumental in fostering educational innovation. For instance, the integration of advanced technologies and specialised programs like the STEM lab (Zero1 Hub) showcases the school's commitment to cutting-edge learning experiences. This alignment with real-world problem-solving, exemplified by STEM integration, reflects the government's recognition of OWIS Riyadh's innovative contributions, notably demonstrated through its selection as an educational entity for the 2023 World Expo application. This partnership underscores the significance of aligning educational initiatives with broader national goals, as emphasised by Asem, Mohammad, and Ziyad (2024), highlighting the strategic alignment with Vision 2030's objectives in Saudi Arabia.

Alignment with Vision 2030's Objectives
OWIS Riyadh's initiatives align closely with Vision 2030's objectives, particularly in preparing students with key competencies such as critical thinking, digital literacy, and entrepreneurship education. Asem et al. (2024) further elaborate on the alignment of educational strategies with Vision 2030, emphasising the importance of organisational strategies and innovations in driving digital transformation in Saudi Arabia.

Implications for Educational Policies and Practices

The study's implications for educational policies and practices emphasise the need for informed policy-making, enhanced teacher professional development, curriculum design improvements, effective school leadership, and community collaboration. These recommendations are essential for advancing educational innovation and addressing societal needs, as advocated by scholars like Asem et al. (2024), who stress the importance of policy alignment with stakeholder expectations in driving successful educational transformations.

Implications of Innovative Initiatives

Alignment with National Goals
OWIS Riyadh's innovative initiatives align with Saudi Arabia's Vision 2030 by incorporating key competencies such as critical thinking, digital literacy, and entrepreneurship education into the curriculum. This alignment positions the school as a model for innovative education in the country, contributing to the nation's goals for economic and social development.

Enhanced Student Learning Outcomes
The integration of Apple-powered educational tools and innovative teaching methods at OWIS Riyadh has led to enhanced student engagement, collaboration, and academic performance. This suggests that innovative practices can significantly impact student learning outcomes by catering to diverse learning needs and promoting active participation in learning activities.

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Professional Development for Educators
Effective teacher training programs empower educators to implement innovative teaching methods successfully. This not only improves teaching practices but also fosters continuous professional development among teachers, ensuring they remain updated with the latest educational trends and technologies.

School-Community Partnerships
Collaborations with industry partners and community stakeholders create opportunities for students to gain practical skills, explore career pathways, and contribute to societal development initiatives.

Strengths and Challenges of Implementation

The Strengths

Flexibility and Adaptability
OWIS Riyadh's ability to adapt to evolving technologies and educational trends demonstrates its flexibility and commitment to providing quality education.

Engagement and Collaboration
Innovative practices foster student engagement and collaboration, creating a dynamic learning environment that promotes active participation and peer interaction.

Supportive Infrastructure
The school's infrastructure, including Apple-powered educational tools and specialised programs like the STEM lab, provides a conducive environment for implementing innovative practices.

The Challenges

Resource Allocation
Implementing innovative practices requires adequate resources, including financial investment in technology tools, teacher training programs, and infrastructure development.

*Resistance to Chang*e
Some stakeholders may resist change, posing challenges in the adoption of innovative practices and the need for comprehensive change management strategies.

Sustainability
Ensuring the long-term sustainability of innovative initiatives requires strategic planning, ongoing evaluation, and continuous improvement efforts.

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CONCLUSION

In conclusion, OWIS Riyadh's innovative initiatives have significant implications for education in Saudi Arabia, showcasing strengths in alignment with national goals, enhanced student outcomes, and collaborative partnerships. However, challenges such as resource allocation and change management need to be addressed to ensure the sustainable implementation of innovative practices. Overall, these initiatives have the potential to positively impact student learning, teacher development, and school-community partnerships, contributing to a dynamic and progressive educational ecosystem.

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