



# Exploring the nexus between female school leaders' perceptions of distributed instructional leadership, socio-cultural dynamics, and student achievement in the Arab world

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## ARTICLE INFO

### Keywords:

Distributed instructional leadership

Female leaders

Student achievement

Empowerment theory

K-12 education

## ABSTRACT

This study employs the social empowerment theory to explore the collective impact of gender, instructional leadership, and socio-cultural dynamics in improving student outcomes within public schools in the Arab world. It provides insights into the barriers and affordances that school leaders encounter considering the local demands for effective and exceptional school leadership. An inductive-qualitative research methodology was utilized, followed by applying thematic analysis to data obtained from Emirati senior female school leaders, in one of the northern emirates in the United Arab Emirates. Results indicate that Emirati female school leaders have effectively embraced and implemented a distributed instructional leadership style, thereby transforming their schools' climate into learning organizations. This approach cultivates a learning-focused environment, ultimately contributing to positive student outcomes. The emphasis on data-informed decision making and the promotion of students' social and emotional wellbeing were found to be significant leadership practices that elevates students' academic achievement. Key implications and recommendations emanate at the practical and theoretical level. The reported findings that combine female school leaders, distributed instructional leadership, learning-oriented organizational school climate, and student achievement, that considers the socio-cultural context within the purview of a single framework are new. Hence, this study is the first to explore these relations within the context of the Arab world.

## 1. Introduction

Globally, the significant role of women in educational leadership is gaining recognition, driven by the progress of contemporary societies and a heightened focus on social justice concerns (Qin, Torres & Madsen, 2019). Over time, research has progressed from an initial concentration on the impediments to women's access to leadership positions (Arroyo & Bush, 2021; Hallinger, Dongyu & Wang, 2016) and their conspicuous underrepresentation to a nuanced examination of the distinctive attributes and leadership styles that female leaders may exhibit and the consequent effects on school management and organizational dynamics (Weinstein et al., 2021). Numerous policies have been instituted globally to empower women and acknowledge their indispensable contributions to societal development, especially in the realm of education (Ahmad, Al Darmaki, & Al Mutawa, 2017; Cañas, Keeve, Ramos, Rivera

& Samuel, 2019; David, 2015). Indeed, the discourse surrounding management and leadership particularly within educational communities is intricately linked to the type of leadership that evolves, with a potential dependence on the gender of the leader (Weinstein et al., 2021). Consequently, while not yet explored in the Middle East (Arroyo & Bush, 2021; Shaya & AbuKhait, 2017), this subject has garnered growing attention on a global scale (Arroyo & Bush, 2021; Hallinger et al., 2016; Weinstein et al., 2021).

This study seeks to make several contributions to theory and practice. It extends beyond studies conducted in the Arab world, where the predominant focus has largely been on challenges related to gender discrimination in the workplace (Ahmad et al., 2017; Valek & Picherit-Duthler, 2020), biases (Chen et al., 2021; Lauscher, Takiuddin, Ponzetto & Glavaš, 2020), or female employment (Afiouni, 2014; Selwaness & Krafft, 2020) or similar lines of research in corresponding

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<https://doi.org/10.1016/j.ijedro.2024.100372>

Received 13 March 2024; Received in revised form 25 June 2024; Accepted 26 June 2024

Available online 30 June 2024

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international literature (Cañas et al., 2019; David, 2015; Spates, Na'Tasha, Watts, Abubakar & James, 2019). Instead, this study explores the connections among socio-cultural factors, instructional leadership (IL) of Emirati female school leaders and their potential implications on students' achievement. The United Arab Emirates (UAE), the context of this study, is one of the frontiers in promoting the role of women in leadership, steered by the Gender Balance Council. During the year of 2014, the UAE launched a 7-year national strategy to position the country as one of the leading frontiers in innovation in the world. This strategy recognized gender diversity, particularly women as one of the hallmarks of promoting innovation in both public and private sectors including schools (Ahmad et al., 2017; Chaudhry, Paquibut & Tunio, 2021). The UAE has robust social and cultural attributes that have sustained the country's traditional values (AlMazrouei & Pech, 2015). The UAE society is generally open to the material advantages of globalization but intentionally shields itself from its negative impacts on social life and ideology. This approach has resulted in a unique blend (Fox, Mourtada-Sabbah & Al-Mutawa, 2006), and Emirati women are expected to respect these values as they are embedded within the UAE's constitutional framework. Emiratis are acutely aware of the significant privileges associated with being part of a wealthy nation, which affords them opportunities for a substantially better life compared to expatriate non-nationals. Despite the growing national pride among UAE citizens, the distinct identities of the individual emirates and their traditional values remain intact (Goby, 2023; Heard-Bey, 2005). As such, this study acknowledges the immense role of social and cultural norms of the UAE society in how women's role in school leadership is perceived and practiced (Al Mazrouei & Pech, 2015; Arar, 2018). Literature on business management in the UAE highlights a coexistence of cultural business settings, marked by strong religious influence, centralized power, and robust family and tribal culture, alongside international business practices (de Waal & Frijns, 2016). This paper utilizes an inductive qualitative study to explore the pedagogical leadership approaches of Emirati female school leaders. Through semi-structured interviews, it examines their perceptions of socio-cultural norms and other factors influencing their instructional leadership roles in UAE schools, and how these roles ultimately impact student achievement.

For many years, researchers have sought to unravel the mystery surrounding the concept of IL. There is now a consensus that IL entails the design of effective teaching and learning objectives, and the ongoing monitoring of students' academic performance (Hosani, 2015; Hallinger, Gümüş & Bellibaş, 2020). That said, IL appears to be the new tool that school leaders may embody to achieve excellence in education and effectively respond to the evolving needs of teachers and learners. It presents as one of the crucial leaders' roles that contributes to effective teaching, thereby enhancing and promoting students' overall schooling experiences (Hallinger & Heck, 2011; Organization for Economic Co-operation & Development, 2005). Hence, IL becomes primarily focused on developing teachers' strategies that enhance learning and the overall educational performance of learners. IL can be referred to as pedagogical leadership, knowledge-centered leadership, learning-focused leadership, or even student-oriented leadership (Al Kaabi, 2013). Munna (2023) further indicates that leadership plays an essential role in any educational institution since it facilitates the management of daily operations of schools including teaching and learning among other factors. According to Nixon (2017), IL has been used frequently over the last few years, and there is a tendency to assume what it implies. Setting and conveying a clear vision and goals for teachers and students, as well as supporting school leaders through coaching, mentoring, and professional development, constitute the process of IL (Robinson, Lloyd & Rowe, 2008). Similarly, Hallinger and Heck (2011) recognized and concurred that IL is a worldwide phenomenon and a unique type of leadership for learning.

Identifying the leadership styles most effective for student achievement is a must, as schools continue to depend on the school structure for student development. Some studies argue that student achievement

improves when the school principal serves as an instructional leader (Hansen & Lärudstóttir, 2016; Rigby, 2013; Robinson et al., 2008). Therefore, the IL approach is intended to advance student learning outcomes in schools (Carraway & Young, 2014; Duplessis, 2013). Principals who practice IL have a distinguished vision for their school towards advancing student learning (Munna, 2023). Moreover, principals who are viewed as instructional leaders tend to help teachers improve their practice by offering essential tools through coaching, mentoring, as well as through formal and informal professional development opportunities (Robinson et al., 2008). Consequently, instructional leaders become positioned as a significant resource for teachers who aspire to develop their teaching strategies to enhance student achievement. By examining the perspectives and practices of Emirati female school leaders towards IL and its association with students' achievement, this study identifies the nuances, challenges, and possibilities of implementing IL in primary public schools to offer new insights that would inform future educational leadership policy development and practices in the UAE's K-12 system. As such, this study address two main research questions:

- 1) *How do Emirati female school leaders in schools conceptualize IL and relate their practices?*
- 2) *What are the challenges (if any) and affordances that these leaders encounter as they adopt the IL approach?*

## 2. Literature review

Since its inception, the UAE has recognized that economic emancipation is contingent upon achieving gains in education. Over 77 % of Emirati women pursue further education after completing high school, constituting 70 % of all university graduates in the UAE. Notably, 61 % of female graduates specialize in scientific fields. Upon completing their undergraduate studies, Emirati women have a plethora of career opportunities, particularly in cutting-edge industries like industrial technology, robotics, and Artificial Intelligence (AI). Many of them choose careers in STEM sectors to contribute to the nation's progress.

The World Economic Forum's Gender Gap Report predicts that it will take 115 years to eliminate the gender gap in the Middle East and North Africa (World Economic Forum, 2022). Despite progress in achieving equitable health outcomes and narrowing the achievement gap, challenges persist in addressing gender disparities in the region. However, substantial efforts are still needed to ensure equal economic opportunities and to further empower women in governance around the globe. Currently, women's participation in the labor force stands at 31 %, and in six nations, women earn less than 25 % of men's wages (World Economic Forum, 2022). Moreover, inadequate representation of women in boards, legislatures, and cabinets hampers their involvement in decision-making processes. Nevertheless, there has been an emergence of initiatives addressing these disparities, indicative of increased awareness among policymakers. Notably, in the Arab World, the United Arab Emirates (UAE) stands out with the highest level of gender parity. With nine women in its cabinet and a mandate for all companies to appoint at least one woman to their boards, the UAE has achieved gender parity in its parliament, the Federal National Council. The government has committed to integrating moderate Islam and Islamic work ethics into its development plan, implementing initiatives to promote this vision. This forward-looking model empowers women, embraces diversity, encourages education and innovation, and welcomes global engagement (Goby, 2023). IWE, based on the teachings of the Qur'an and the sayings of Prophet Muhammad, offer moral guidelines that shape and regulate the business conduct of employees in the workplace (Mohammad et al., 2018). These ethics prioritize sincerity, proficiency, truthfulness, patience, continuous self-evaluation, promise-keeping, and moderation, while rejecting arrogance, injustice and dishonesty. What follows is Huis et al.'s (2017) three-dimensional model of women's empowerment that encapsulates 1) the explored associations between

different guiding concepts in this study, and 2) a review of national and international literature on IL and student achievement, highlighting the historical development of the field.

### 2.1. The Three-Dimensional Model of Women Empowerment

In the context of gender perceptions in the Middle East and the Arab world, women are viewed as assistants to men rather than independent social and psychological agents (Afiouni, 2014). From this standpoint, women who exhibit assertiveness in society or are perceived to do so often face stigmatization and are labelled as deviant (Shaya, & Abu Khait, 2017; Spates et al., 2019). Nevertheless, Emirati women experience considerable empowerment and backing within their close-knit communities, further reinforced by national and governmental legislations ensuring equal pay and privileged benefits. This is further reinforced by national strategies and frequent public declarations of support (Ahmad et al., 2017). For instance, as noted by the country's early ruler, His Highness Sheikh Zayed Al-Nahyan, in the early history of the UAE: Young women have the right to work in all fields without obstacles. They are expected to support and proceed with everything undertaken by their male counterparts in the UAE, ensuring fruitful cooperation across various sectors (Ahmad et al., 2017). Empowerment grants women the authority to manage and derive advantages from resources, assets, and incomes. It signifies women's capacity to make strategic life decisions that were previously restricted. Therefore, this study draws from Huis et al.'s (2017) "Three-Dimensional Model of Women's Empowerment," which is further grounded in the Ecological Theory (ET). Women's empowerment manifests across three distinct dimensions: (1) personal empowerment, encompassing individual personal beliefs and actions, where personal empowerment is evident; (2) relational empowerment, involving beliefs and actions in connection with relevant others; and (3) societal empowerment, involving outcomes within the broader societal context.

The present study distinguishes among the three dimensions of women's empowerment, with a specific focus on societal empowerment. This approach aims to enhance our comprehension of women's empowerment and present a more nuanced depiction of women across diverse cultures. Therefore, examining the leadership style of Emirati female school leaders from the societal empowerment lens is appropriate. In fact, review of previous research in the field of education shows that educational leadership research, particularly in the UAE, has not yet examined the interplay between women's societal empowerment and IL style in schools, presenting a clear research gap that we seek to explore in this research. It is worth noting that for the last three decades, the UAE government has challenged Emirati women to prioritize education as a societal empowerment tool. Today, various initiatives are in place such as incentives, workshops, and supportive education strategies (Yahya, 2022). Despite this progress, there is a lack of research that informs the progress of Emirati women in IL in schools (Yahya, 2022; Samier, 2015). IL is one of those concepts that has been used frequently over the last few years, and there is a tendency to assume what it implies (Nixon, 2017). Setting and conveying a clear vision and goals for teachers and students, as well as supporting instructors through coaching, mentoring, and professional development, constitute the process of IL (Robinson et al., 2008). Hallinger and Heck (2011) recognized and concurred that IL has become a worldwide phenomenon and had given rise to a unique type of leadership for learning.

### 2.2. Instructional leadership: A historical perspective

According to Marks and Printy (2003), IL is one of the best leadership approaches used in contemporary educational institutions. For them, IL dates to the 1900s during which school principals were viewed as representatives of the school community as opposed to being school managers. The concept of IL resurfaced in the 1980s and this time the 'principal' was viewed as the leader of the instructional program and the

most fundamental source of the educational process (Jackson & Marriott, 2012). During this era, IL concentrated on actions that were related to teaching and learning where principals ensured that students achieve academic excellence and that teachers have mastered their instructional tasks (Hallinger et al., 2011). However, Jackson and Marriott (2012) noted that leading instructional practice in schools does not mean that principals renounce their management duties as they must also play their role in managing school operations.

The role of school leaders has evolved in recent decades from managers to administrators to instructional leaders. However, the core role of instructional leaders, as described in Hallinger et al. (2020) includes setting up clear school objectives, distribution of curriculum resources, monitoring teachers' lesson plans, managing curriculum delivery, and evaluating teachers' performance. Other delegated roles include the promotion of student growth and treating the institution's instructional quality as the most fundamental priority that turns the school's vision on students' learning into a witnessed reality (Naidoo & Petersen, 2015).

Indeed, the role of the school principal as an instructional leader is quite challenging. Although several principals perceive themselves as instructional leaders, various challenges including accountability, legislation, training issues, time constraints, serving as substitute teachers when needed, and budgeting issues, constantly complicate their work (Hallinger et al., 2020; Lunenburg & Ornstein, 2021). In contrast, many principals prefer to be perceived as curriculum facilitators and this would require them to work more closely with societal agents such as teachers, students, and the community to ensure the best educational opportunities are offered to all (Bafadal, Wiyono & Sobri, 2019).

### 2.3. International perspectives on IL and Data-Informed Decision Making: challenges and opportunities

Traditionally, principals have played the role of managing school budgets and instilling discipline in students (Lunenburg & Ornstein, 2021). Getting adequate time in their busy schedule to discuss teachers' issues related to teaching, while keeping a hand on best practices, appears to be a challenge for many school leaders who aspire to become effective instructional leaders (Hayes & Irby, 2020). For them, if principals could find enough time, teachers would feel better supported and valued, and this would contribute more efficiently to student achievement.

Principals who feel uncomfortable discussing instructional issues performed by their teaching staff are viewed as ineffective leaders in promoting change and advancing student achievement (Graczewski, Knudson & Holtzman, 2009). In this regard, the study of Salo, Nyland and Stjernstrom (2014) and that of Duplessis (2013) argue that IL calls for establishing an inclusive atmosphere in which truth and openness thrive to allow difficult conversations touching on teachers' ways of practice to happen.

Although many instructional leaders shy off discussions about teacher's practice, such conversations are essential for promoting student achievement and should not be overlooked. Rigby (2013) agrees with this view by pointing out that school leaders should have the knowledge and capacity needed to guide teachers to enhance their instruction and by extension improve student achievement. Consequently, these studies suggest that principals need to further engage in professional development sessions to obtain new knowledge that would guide them on how to improve teaching practices and curriculum implementation strategies.

According to Sun, Johnson and Przybylski (2016), great efforts have been in place during the last two decades to improve students' learning achievement by seeking more effective use of students' data to inform school leaders' decision-making processes. For them, school leadership practices that are driven using student data have constituted the main component of school leadership that support not only school administrators but also policy makers' decisions on how to better improve

student learning. Relatedly, Townsley and Snyder (2022) argue that “while numerous aspects of data-based decision making and the direct connection to student learning remained unclear, high data use schools did tend to correlate to higher student achievement” (p. 90). Moreover, Townsley and Snyder believe that the increasing use of data in schools, requires us to identify new leadership tasks and practices that will help in using the outcomes of these data more effectively. While collected data tends to focus on problems and challenges of students’ learning instead of focusing on causes and solutions, Leithwood and Lewis (2012) maintain that leaders who use data sources that go beyond student performance are better positioned to offer their schools, particularly teachers, more actionable solutions for student learning-related problems such as academic achievement. For Kraft and Gilmour (2016), today’s reforms of teacher evaluation systems have greatly emphasized the role of school principals as instructional leaders and their significant role in teacher professional development. In particular, principals used to complete single observation of classroom teachers using checklists, the new evaluation systems require school leaders to adopt new approaches such as multiple observation sessions and more detailed feedback meetings. The observation and feedback process provides a formal structure that pushes teachers to set goals and tracks their progress towards meeting these goals. These cycles of observation, reflection, dialog and feedback, and goal setting can provide teachers with new ideas as well as frequent and relevant feedback to support their professional growth. (Kraft & Gilmour, 2016, p. 5)

That said, women empowerment perspective, manifested in the ways Emirati female school leaders must be offered more chances for developing robust social attributes and IL skills, become a significant lens to use towards understanding the interplay between social context of school leadership adopted by Emirati female school leaders and the concept of student achievement.

#### 2.4. IL and student achievement in the United Arab Emirates: issues and concerns

Addressing the challenges of IL policies in UAE schools, Hammad, El Zaatari and Al-Abri (2023) found discrepancies in policy as text and policy as practice. For them, this discrepancy impacts communication surrounding priorities, needs, and necessities for schools and students’ achievement, all of which can lead schools to operate less effectively. Also, schools and governments tend to differ in the type of leadership adopted, a fact that impacts students’ performance in schools (Hammad et al., 2023). In addition, public schools in the UAE are single sex where males and females are educated in separate buildings. Although IL and teacher training are compulsory requirements in UAE public schools, there is no clarity regarding the specific type or format of training needed for school leaders and the suitable methods of follow-up (Mercer, 2007). These challenges call for revisiting leadership in UAE schools surrounding the social aspects of schooling namely instruction, teaching, and learning to ensure an effective dissemination of practices among all school leaders (Massouti, Shaya & Abukhait, 2023).

Previous studies argued that giving UAE school leaders greater control over their school’s educational management and instruction is critical to achieving high-quality learning (Hosani, 2015; Kabetal, Manchishi & Akakandelwa, 2013). This argument is in line with the assertions of Hosani, 2015 who points out that UAE school leaders are held accountable towards enhancing students’ achievement and school performances. As such, these leaders should make efforts to elevate the quality of interactions with both teachers and students. Consequently, IL boosts the capacity of teachers to reflect, innovate, and utilize the most modern teaching strategies to break down complex concepts in the school curriculum delivered (Al Kaabi, 2013). According to Hou, Cui and Zhang (2019), the specific way in which IL affects student achievement remains complex. However, Robinson (2010) argues that IL encompasses processes, learning culture, and tools on which the process of effective teaching and learning is built. Thus, IL is considered

a close-to-the-classroom style of leadership. Undoubtedly, cushioning teachers from constant distractions, availing teaching and learning materials, fostering professional growth, and providing psychological support are all important IL practices that would harness student achievement (Hornig & Loeb, 2010). However, in the UAE and based on the few studies conducted around IL, understanding the IL practices of school leaders remains crucial to better conceptualize how this leadership approach informs students’ achievement in UAE public schools and in the Emirate of Fujairah in particular.

### 3. Methodology

#### 3.1. Design

A qualitative case study was adopted using semi-structured interviews to provide an in-depth understanding of the case, namely the adoption of IL practices among Emirati female school leaders in UAE’s primary public schools in the Emirate of Fujairah. Yin (2014)) highlights that a qualitative case study uses a variety of data sources and analytical approaches to investigate a complex phenomenon, such as a person, group, process, or event. Case studies are useful for outlining, contrasting, assessing, and comprehending various facets of a study subject. The adopted qualitative methodology aimed at identifying emerging factors within the key themes of the study.

#### 3.2. Participants and recruitment

The study involved a random selection of ten public primary schools in the Emirate of Fujairah, where its economy is based on fishing and agriculture. Other local industries include mining and stone crushing which have benefited from the recent boom in construction in other major and metropolitan Emirates such as Dubai and Abu Dhabi. Public schools are government schools that are free for Emirati students and open to expatriates for a fee. The emirate under study has a number of public and private schools, where the majority of Emirati teachers and principals are employed in the public school system. The study sample included a total of 10 participating reputable primary schools, known for their high standards and academic achievement based on published school inspection reports by the Ministry of Education in the UAE. In this regard, Turner (2020) believes that random sampling ensures that the results are equivalent to those which would have been achieved if the total population has been selected. The study participants’ selection followed a purposeful sampling technique to gather rich and in-depth information about the research topic (Yin, 2014).

Participants’ criteria included holding the position of school principal, vice principal, or head of department with a minimum of 10 years of teaching and administrative experience combined. Out of the 10 schools that responded, there were 17 school leaders who met the inclusion criteria. However, two school leaders declined their participation later due to unavailability. The remaining 15 participants who responded opted for a one-on-one Microsoft Teams online interview due to their busy schedules and to save on travel time. Each interview lasted up to 60 min. These participants were Emirati females among whom were five principals, five vice principals, and five heads of departments

**Table 1**  
Participants’ demographics.

| Participant group | Number of participants | Age range | Average experience (in years) | Gender/Ethnic background |
|-------------------|------------------------|-----------|-------------------------------|--------------------------|
| School Principals | 5                      | 45–55     | 15                            | Female/Emirati           |
| Vice Principals   | 5                      | 40–45     | 12                            | Female/Emirati           |
| Department Heads  | 5                      | 35–40     | 10                            | Female/Emirati           |

(See Table 1). It is worth noting that most public schools in this northern emirate are led by female leaders. The participants were between 35 and 55 years old and had different educational backgrounds such as English literature language education, special education, early childhood education, and science education. School principals had an advanced level of experience in their jobs, reaching an average of 15 years in teaching and school leadership.

### 3.3. Methods

Individual recorded online semi-structured interviews were conducted using Microsoft Teams. Following each interview, the interviewer downloaded the participant's transcripts to analyze and create codes and themes that resonate with the aims and objectives of the study. The interviews included questions that addressed participants' academic and professional background, their roles and responsibilities, their overall understanding of IL in education, how they define student achievement, and how they use data to make informed decisions to enhance academic performance among students and teachers. Example:

- 1) *Based on your knowledge, can you please name some of the "best leadership practices" enacted in your school. Why are they effective?*
- 2) *Tell me about your students' outcomes and how do you relate these practices to the achievement of students?*
- 3) *How does successful leadership inform students' learning?*
- 4) *What would you do to increase student achievement?*
- 5) *How can you as a leader create positive change to improve teaching and learning?*

Moreover, some interview questions requested these leaders to explain how they align their leadership with the school's vision and strategies for continuous improvement of teaching practices, among other related questions.

### 3.4. Thematic analysis

With the abundance of data collected, it needed to be organized in a methodical manner to be analyzed. Hence, this task was achieved through multiple readings of the data collected from each participant group and comparing the results. The interview of each participant group encompassed 15 questions. To better scrutinize each data set, all answers to each question were consolidated in its own document, resulting in different documents for each participant group. This process allowed an easier process to identify categories that reflected the study's research questions. Consequently, a summary of replies with relevant quotes for each question inside each data set was generated. Following that, summary of answers for all questions in each data set were compiled and 3 different group reports were created. Each report included a collection of topics that corresponded to the literature review and addressed the study's objectives. It was worth noting that this deductive analytical technique allowed the elimination of data that was deemed extraneous to the goal of the study.

The data collected underwent iterative examination and interpretation, leading to the development of codes and themes. Subsequently, the responses from each interviewee were systematically organized in a tabular format, comprising the interviewee's code name, key themes, codes representing the interviewee's perceptions, and corresponding quotes. This data was then analyzed using thematic analysis (Braun & Clarke, 2022) to identify the recurring themes and patterns in female school leaders' perceptions, experiences, and practices concerning the comprehension and execution of their IL. This analytical approach allowed us to scrutinize the data for patterns and themes. Emerging codes were considered as potential themes, and through a process of integration, different codes converged to form overarching (or dominating) themes. Eventually, distinct themes and sub-themes were discerned through this thematic analytical process.

### 3.5. Ethical approval and considerations

After obtaining the ethical approval from the Institutional Review Board (IRB) of the first author's institution and from the Ministry of Education in the UAE, the recruitment procedure was initiated. A letter of information and consent form were shared with the participants via email to inform them about the study including the study's topic, objectives, questions, data tools, preferred mode of interview (online or face-to-face), potential participants' inclusion criteria, overview of the expected risks, the procedures to be taken to ensure participants' anonymity, their right to withdraw freely at any moment throughout the study, the educational institution supporting the study, and the researchers' contact details.

## 4. Results

Qualitative data was collected through semi-structured interviews, where the largest part of the interview was guided by a prepared list of questions and various leadership attributes to be explored. As such, interview questions were designed to uncover school leaders' perspectives on IL, focusing on key aspects such as vision and goals, curriculum and instruction, professional development, decision making, teacher evaluation and feedback, as well as student achievement and support.

All participants including School Principals (SPs), Vice Principals (VPs), and Heads of Departments (HoDs) stressed the importance of IL in educational settings and its robust implications for student achievement. Principals were found committed to effective pedagogy, professional advancement, and collaboration. Findings indicated continuous efforts to engage teachers as well as leaders in professional development and how collective work between teachers and leaders can bring about changes in student learning progress and in turn their academic achievement. Data-driven decision making emerged as a common practice among the leaders, enabling them to address students' needs, create focused interventions, and promote academic performance. This approach highlights the necessity of using data to enhance instruction and learning outcomes. Furthermore, academic success was linked to pupils' emotional and social development. Hence, an inclusive and respectful learning environment in the studied public schools was deemed crucial to improve and sustain students' learning performance and overall academic success. The findings obtained from the semi-structured interviews with the three participant groups revealed five major themes as follows:

*Theme 1: Enacting Distributed Instructional Leadership Style as a Key Promoter of Student Success*

*Theme 2: School Climate as a Learning Organization*

*Theme 3: Supporting Student Achievement through Data-Informed Decision Making*

*Theme 4: Students' Social and Emotional Well-being in Schools*

*Theme 5: The Role of Socio-Cultural Factors*

#### 4.1. Theme 1: Enacting distributed instructional leadership style as a key promoter of student success

Data gathered from school principals indicated an embrace of IL approach, where during the interviews, participants hinted at the concept of distributed IL style. Consequently, further questions were asked to better understand their perspectives. Thus, the distributed IL style emerged as a crucial theme in the data, capturing an important aspect of the research purpose. Such practices served as an important factor in shaping the school climate into a learning organization. Female leaders' responses reflected enacting distributed IL style, that was characterized by: (1) teacher empowerment through workplace place inclusion demonstrated in engaging teachers in high-stake decision making; (2) developing a school vision that values teacher training and

development; (3) focusing on instructional and pedagogical improvements; and (4) nurturing students' leadership.

The importance of IL was emphasized by the interviewed leaders as a vital duty and part of their professional roles. They reiterated the significance of providing ongoing advice and support to teachers to ensure the delivery of effective instruction. SP3 stated: *"Instructional leadership promotes student achievement by supporting teachers in delivering effective instruction, ensuring progress, and unlocking teachers' full potential"*. Additionally, the findings showed that SPs actively participate in classroom teacher observations and offer the latter insightful interventions to enhance their instructional strategies to improve students' academic performance.

All leaders' responses expressed a commitment to IL with students' academic performance in mind. SPs noted that IL is a practical and essential part of their daily duties rather than just an abstract concept. Reflecting on their practice, SPs explained how they promote collaboration, model effective strategies, and share best practices with their teaching staff to advance a culture of continuous improvement. To exemplify, SP2 said: *"I prioritize the leadership of instruction by demonstrating successful teaching methods, offering my teachers continuous PD sessions, prompting teamwork and facilitating the exchange of effective practices among them"*. By providing teachers with the support and resources they need to give successful instruction, the SPs ascertained that IL plays an important role in increasing student achievement: *"I believe that instructional leadership is all about supporting teachers in delivering effective instruction, and in turn ensuring learners' progress towards their full potential"* (SP2). Most SPs were found to involve students in IL by 1) providing them with opportunities to provide feedback and voice their concerns and needs, 2) encouraging them to lead projects and 3) offering them a space to articulate inputs on the existing teaching practices performed in the classroom.

#### 4.2. Theme 2: School climate as a learning organization

The interviewed female leaders showed how their distributed leadership style has shaped the school climate into that of a 'learning organization'. A learning organization is a concept developed in the field of organizational theory and management that describes an institution or company characterized by its commitment to innovation, adaptability, and ongoing learning. Staff in a learning organization are motivated to continuously learn at all levels, while the institution as a whole cherishes and fosters a culture of learning. This phenomenon is notably evident through several key facets, namely: (1) Fostering support for a clear and shared vision, where everyone works towards achieving the vision; (2) Fostering a culture of teamwork and innovative thinking; (3) Ensuring a heightened focus on optimizing support for teachers' professional practices to achieve personal mastery; (4) Conducting feedback loops; and (5) Shifting from reactive problem-solving to proactive initiatives. This has been particularly effective in the studied schools as demonstrated through teachers' extra-role behaviours and willingness to support one another; (6) team collaboration and (7) team innovativeness in launching several innovative programs. This reciprocal relationship between leaders and subordinates has led to embracing a learning environment that fosters culturally responsive teaching and equitable learning opportunities, that caters to the diverse needs of students in a multicultural classroom. One VP spoke about the team development and implementation of a social-emotional learning program in their school as a leadership initiative that led to a decrease in behavioural problems, leading to a more conducive environment for teaching and learning. Another VP was heavily involved, along with a number of teachers, in mentoring programs for both students and teachers. This program was a result of collective thinking among HODs, teachers and leaders. Thus, most VPs were found responsible for school improvement plans, implementing reading programs, and holding weekly teacher meetings to discuss student progress and success. Other leadership practices addressed by the VPs included supervising

instruction and building relationships with the wider community.

Many VPs emphasized the crucial role that school leaders play in fostering a school culture that prioritizes students' active learning. The VPs showed a widespread commitment to ongoing learning across various stakeholders, fostering the assimilation and application of the latest pedagogical and technological advancements. Additionally, HODs have shown robust knowledge-sharing initiatives with teachers, leaders and among one another. The leader-subordinate relationship was transparent and characterized by open communication channels. Several VPs highlighted the importance of building a trusting relationship with students as a key IL practice for student achievement. Arguably, creating a welcoming environment where students feel cared for and valued is essential to engaging them in meaningful learning experiences. Other VPs stressed that the team's focus on teacher's effectiveness and connection with students is the primary factor in determining student success:

*We, as a team, make efforts to support the teachers in the areas that they need with, to help students achieve success, whether that's behavioural support for specific students or academic support, and essentially those things are directly related to student achievement. A few brainstorming group sessions are conducted to analyze events, then synthesize back to arrive at conclusions. In this way, several initiatives were developed.* (VP3)

The study results showed VPs' duties go beyond traditional managerial responsibilities and how IL is a crucial component of their responsibilities. VPs noted that teachers spend a large amount of their time supervising pupils and controlling their actions to help in creating a welcoming and responsible school atmosphere.

#### 4.3. Theme 3: Supporting students through data-informed decision making

The findings showed that all SPs value the role of data in student achievement and in making informed decisions about students' learning needs, strengths, and other related challenges. In this regard, SP3 stated: *"I use data to identify areas where students are struggling and develop targeted interventions to support their growth. I also use data to monitor teacher progress and provide the necessary feedback"*. The use of data to identify students who may have learning difficulties and to create intervention plans were greatly emphasized by the participant leaders. As shared by the SPs, data serves as a tool to provide individualized learning experience and assistance with the goal of increasing students' academic achievement. Data-driven decision making was a common element in SPs interviews. They utilized data to guide instructional techniques and identify areas of proficiency and improvement among learners, reflecting their commitment to student success through tailored interventions.

Similarly, VPs and HoDs believed that data must be used to make informed decisions about students' needs as well as the necessary professional development for teachers, all of which can yield students' success and reflect a common commitment to IL principles and objectives. Furthermore, the responses of VPs and HoDs exemplified their active involvement in classroom observations, student achievement data analysis, and consequently designing relevant intervention plans and implementation strategies. Such practices positioned the VPs and HoDs as learning leaders who guide teachers in their professional growth, fostering an effective and supportive learning environment.

#### 4.4. Theme 4: Students' social and emotional well-being in schools

To support students' academic achievement as well as their engagement, SPs stated that students' overall wellbeing cannot be overlooked in any school setting. In that sense, schools must attend to both academic and non-academic factors that impact students' achievement, namely the social and emotional factors. One VP said:

*There are so many things that go into student achievement. Social-emotional learning is key. In this school, students have their first social interactions. We are huge proponents of socio-emotional growth in our building. Also, our reading growth is of huge importance to overall student achievement. (VP2)*

SPs added that after COVID-19, it was a necessity to give their teachers adequate training and support to effectively address the social and emotional needs of returning and new students. This practice demonstrated SPs' commitment to students' overall wellbeing. Moreover, SPs shared that their schools actively foster a positive and encouraging learning atmosphere that seek to build robust relationships with students, staff, and parents for the purpose of students' academic success as well as their social and emotional wellbeing. In this regard, VP4 said: *"It is significant to develop teachers' capacity in building a rapport with both pupils and their parents"*.

Moreover, the researchers' observational notes resonated with the participants' responses during the interviews. During these observations, participating VPs engaged in informal conversations with students on academic and non-academic issues. In addition, their commitment to fostering a positive school culture was clearly demonstrated. Additionally, these VPs developed professional development sessions and conducted teacher evaluations, both of which are ultimately designed to improve classroom instructional practices. The interviews with HoDs revealed that a collaborative environment goes beyond students to include teachers who support one another and work toward common goals. Such practices, as explained by the HoDs, serve towards the creation of a safe and inclusive learning environment for all teachers and learners. Moreover, HoDs believed that supporting students' social and emotional wellbeing requires today's schools to establish robust and age-appropriate activities for all students while ensuring the availability of all necessary human and material resources and programs.

#### 4.5. Theme 5: The role of socio-cultural factors

The socio-cultural dynamics were presented as an important factor that exhibits an impact on the relationship between distributed IL style of female leaders and student outcomes. Hence, we posit that the combination of females' IL within a supportive and empowering social context can further strengthen the impact of the leadership style on students' positive outcomes. Particularly, the female leaders indicated the presence of empowering factors within their socio-cultural environment, namely: 1) Islamic Work Ethics (IWE); (2) Socio-Cultural diversity of the country; and 3) the support of the country's government. The study findings showed that female school leaders invest in the social aspects of schooling, by ensuring more contact time with teachers, supporting them in their professional career and in creating inclusive environment that reflects the welcoming culture of the UAE and to further reduce teacher resistance to change as exemplified in some of the participants' responses. As stated by one of the school leaders:

*The level of workplace inclusion in our school is high. During our meetings, staff members from different departments actively contribute to discussions, sharing their perspectives and experiences. Their input is seriously considered and acted upon. The level of regular collaborative efforts across different department is as well high. (SP4)*

Moreover, the great emphasis of the study participants on the teachers' primary role in schools appear to reflect UAE's social and cultural values in responding to the UAE leaders' vision of 2030. As articulated by one of the leaders: *"We aim at fulfilling the UAE's educational vision for 2023, through focusing on high quality of teaching, learning and assessment practices, adopting technology advancements, professional development and ensuring the presence of inclusive work environment"* (SP5). The interviewed female leaders believed they are positioned to provide all necessary resources for teachers and ensure equitable access to all learners, aiming at fulfilling the UAE leaders' aspirations in

achieving excellence in quality of education offered by the UAE public schools. This in turn constituted a source of empowerment, to motivate the Emirati leaders to continuously perform high. As one of the leaders explained:

*We are deeply moved by our leaders who genuinely inspire us to perform at our best, and that the sky is our limit. Therefore, I firmly believe that any leader must show gratitude to their team for their dedication and support. As such, I make sure to equip our teachers with all the necessary skills and knowledge to optimize their success, such as comprehensive onboarding programs, mentorship for novice teachers, professional development workshops, formal and informal gatherings to and celebrating achievements and accomplishments. (SP4)*

The effect of the government empowerment was also clearly demonstrated through the extensive workshops that Emirati school leaders receive because of ministerial requirement, and extensive training on latest deployed trends by the ministry, such as Math and Sciences. As one of the leaders exemplified:

*We receive extensive professional development and mentoring focused on leadership skills, English language proficiency, assessment practices, monitoring student achievements through data analysis tools, and inclusion and diversity. Additionally, we are well resourced and funded for technological projects, extracurricular activities, and events. (SP3)*

The schools' leaders have also expressed a deep connection between their leadership practice and the Islamic values and ethics they uphold as Emirati and Muslim leaders. This has been exemplified in the ways they emphasize inclusivity in leadership, care towards teachers and learners and the feel of being accountable for developing social and cultural values among the future generation of UAE citizens. As one leader articulated: *"We are guided by the virtues of patience, honesty, modesty, and kindness in conducting our work, as taught by Islam"* (SP4). These findings have led to developing an integrated study model connecting leadership, organizational climate, student achievement, and socio-cultural dynamics (see Fig. 1).

## 5. Discussion

This study integrates various factors at organizational, individual, and social level into a single model, demonstrating that the combined effect of distributed IL and social empowerment is indirectly associated with enhanced student outcomes. Emirati school leaders have effectively implemented a distributed IL style, and significantly influenced the organizational climate of their respective schools, fostering a learning organization-oriented environment that drives elevated student achievement and teacher support. A review of previous educational research reveals a significant gap in this area, where studies on educational leadership, particularly in the UAE, have not yet explored the relationship between women's societal empowerment and IL styles in schools. This research aims to address this gap, through employing the societal empowerment dimension of Huis et al.'s (2017) in the "Three-Dimensional Model of Women's Empowerment" to better understand the role of societal factors in shaping the leadership style of the Emirati female school leaders. Our results showed that the success of SPs' leadership approach is attributed to several crucial support factors, with socio-cultural dynamics playing a pivotal role. Demonstrated through Islamic Work Ethics (IWE), the socio-cultural diversity inherent in the UAE, and the unwavering support of the UAE National Government and national leaders have strategically leveraged these elements to create an inclusive and motivating working and learning environment. Through their adept integration of cultural values, Islamic principles, and governmental backing, Emirati female leaders have played a crucial role in shaping an environment conducive to academic excellence and holistic student development.

In this study, IWE emerged as a significant empowering factor within the socio-cultural environment. The data highlights the role of IWE in

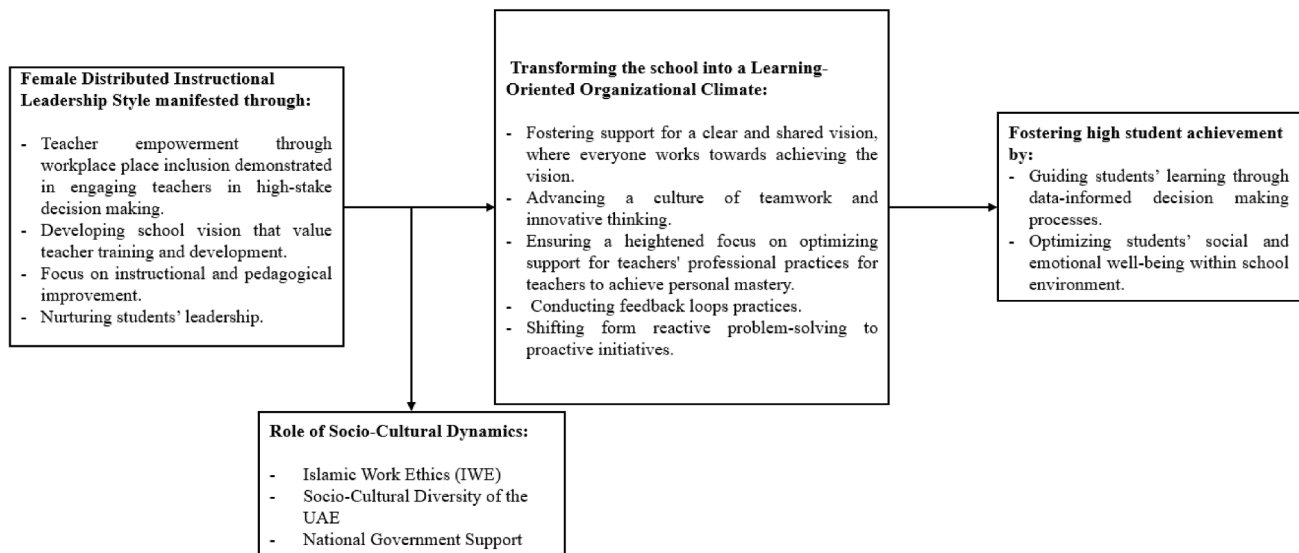


Fig. 1. An integrated study model of distributed instructional leadership.

enhancing leadership's impact on managerial effectiveness. The UAE's diverse population enriches the working environment, yet Emiratis, in particular, adhere to Islamic teachings and Shariah Law, embedding these principles deeply in their professional conduct. The results on the empowerment and success of Emirati female leaders align with Shaya and AbuKhait (2017). As a matter of fact, literature ascertains that the nation's swift progression toward becoming a prosperous, multicultural, and globalized society has given rise to a younger generation that is notably forward-thinking and future-oriented (Goby, 2023), while the research conducted by Heard-Bey (2005) and Fox et al. (2006) lends support to the aforementioned findings. Despite the UAE federation's progress and social openness, the social identity of Emiratis is characterized by a blend of traditional values and modern influences. While the UAE is known for its rapid modernization and cosmopolitan cities, Emirati society retains a strong adherence to traditional and conservative values, rooted in Islamic principles and Bedouin heritage (Heard-Bey, 2005; Mohammad et al., 2018). The robustness of the country's conservative identity acts as a mitigating factor against potential detrimental impacts of globalization and shapes the leadership style of the Emirati females in this way.

The present research stands as the first empirical study that delves into the intricate interaction among female leadership, distributed IL, learning organizations, and student achievement. Its distinctiveness is underscored by its unique focus on the Arab world, marking a significant contribution to the existing body of literature. The contextual relevance and cultural nuances inherent in this research enhance its value, offering insights into a previously underexplored area of study within the broader landscape of educational leadership and organizational learning. The empowering role of the IWE and the socio-cultural environment of Emirati women conform to previous literature (de Waal & Frijns, 2016). Despite economic development, the ruling families have strengthened their leadership over the past decades, and each emirate has continued to develop its unique economic and social roles. This has led to increased conformity among nationals to local and traditional norms in their social conduct (Heard-Bey, 2005). Moreover, examining the study's findings considering the reviewed literature, a range of perspectives towards IL and its role in supporting teachers and learners' success emerged. The study participants conceptualized distributed IL as an approach in which a school leader collaborates with teachers to provide support and advice in the establishment of best practices in teaching and learning. The value of utilizing student and teacher data was exemplary to identify: 1) areas which require improvement, 2) track

the progress of students, and 3) to have well informed instructional strategy decisions. These results conform to the study of Sun et al. (2016) who ascertained that the increased emphasis on student achievement in the last decades has led school administrators to use data-driven decision making and execute revolutionary projects in contemporary educational institutions.

Among the explaining factors in the case of Emirati females is the ample efforts placed by the national government in fostering the growth of national talent and cultivating a culture of sustainable employment within multiple sectors. This commitment is exemplified through upskilling and reskilling of talents, along with providing many interventions in the mode of training workshops on efficient leadership. Emirati female school leaders in this study proved capable in determining specific areas in which students may be grappling by conducting a comprehensive data analysis of student performance. Such analysis enabled them to create targeted interventions to address students' problems associated with their learning experiences. Consequently, the use of data allowed these leaders to combine their leadership techniques with their institution's strategic plan to further develop students' learning capacities and outcomes. Hence, schools situated in similar contexts may rethink their academic strategies, responsibilities, and the professional training that teachers and leaders may require (Kraft & Gilmour, 2016). Arguably, a data-driven approach to IL would, firstly, validate decision making processes, and secondly, enhance the ability of teacher to deliver quality education that is promising and supportive of students' academic achievement. This highlights the importance of skilled leadership in fostering a shared understanding of educational goals and employing statistics to track progress (Robinson, 2010; Timperley, 2005).

The study findings showed how instructional leaders must create a culture of learning and personal growth to help both students and teachers. This can be exemplified in the participants' views on how professional development on IL may foster collaboration, exchange of ideas and practices among teachers and leaders. Further, the study findings illuminated the keenness of these school leaders on the significance of evaluating and adapting instructional strategies that meet the needs of today's learners. This finding resonates with the claim of Timperley (2005) that school leadership has a significant impact on school outcomes, namely students' academic achievement through motivating teachers and upscaling their instructional abilities. This would be achieved by advancing effective teacher professional development and the creation of inclusive school atmosphere that caters for all (Massouti, Al-Rashaida & Alhosani, 2024).

Increasing teachers' efficiency in teaching requires effective school leadership in mentoring and coaching. A recent study by Moss and Brookhart (2019) argued that supporting teachers requires a focus on teacher mentoring and coaching processes as these are conducive to students' academic achievement. Consequently, instructional leaders who prioritize such practices are more likely to be key social players in the adoption of new teaching skills in the classroom that can lead to more rewarding student achievement (Carraway & Young, 2014). We can argue that coaching and mentoring stimulate self-reflection among school leaders on the necessity to cultivate in schools, an environment that is marked by cooperation and collective accountability among teachers, leaders, and students (Carraway & Young, 2014). This has been exemplified in this study by the various opportunities that the participant school leaders offered to students to support their skill development. This included 1) involving students in the decision-making process, 2) encouraging student-led initiatives, and 3) promoting student autonomy.

Fostering a culture of learning contributes to building a trusting relationship between students and learners as well as between teachers and school leaders. Based on the participants' responses, if such environments are created and sustained in today's schools, students will feel more valued, cared for, and supported in their learning experiences (Fullan, 2007). Consequently, student success, growth, and development will be significantly enhanced. Nonetheless, leaders' involvement with teachers through coaching and guidance becomes more of a key promoter of promising students' outcomes (Costello, 2015). These findings resonate with historical studies that argued how a positive school culture can have a major impact on the academic and social achievement of learners (Schein, 1992). Hence, when a school exhibits effective and welcoming school culture, there will be fewer suspensions, higher attendance rates, and higher accomplishment on standardized test scores (Graczevski et al., 2009; Ohlson, Swanson, Adams & Byrd, 2016). As expressed in the participants' responses, leaders who are lifelong learners would surely encourage teachers and students to 1) cultivate a growth mindset, and 2) believe in their own abilities and intelligence, all through regular and persistent effort. This conforms with previous studies that education leaders keep themselves and those around them at high standards, both personally and professionally when it comes to values and accountability measures (Hallinger et al., 2020; Hammad et al., 2023).

Moreover, school leaders believed that their school curriculum is designed to promote learning while ensuring that teachers comprehensively understand their subjects. Further, the participant leaders explained that supporting teachers in implementing new teaching and learning strategies is imperative. In this regard, Carraway and Young (2014) confirm that teachers are the most essential school component when it comes to learning, hence school leaders must carry out regular training sessions with the goal of strengthening teachers' professional development skills (Kraft & Gilmour, 2016; Munna, 2023). This finding conforms to previous studies that powerful teaching strategies tend to be shared during training workshops and events (Kabetal et al., 2013). This would foster a belief in the significance of knowledge dissemination among teachers and creates more opportunities for professional growth (Duplessis, 2013). Some school leaders appeared to have lack of time and excessive workload that prevent them from effectively understanding and meeting their leadership responsibilities (Al Kaabi, 2013). Perhaps, reconsidering the role of school leaders, particularly HoDs and allowing them to seek a right balance between their instructional and administrative duties may alleviate those challenges and consequently promote teachers' professional growth. Consequently, more effective teaching and improved students' learning outcomes can be promised.

## 6. Conclusion and implications for future research

Driven by social empowerment line of theory, this paper contributes to the scarce knowledge that currently exists on how female leaders

perceive the role of socio-cultural factors upon enacting IL and explores the mechanism through which the combined effect can influence student outcomes. The research goes beyond previous findings that primarily either centered on matters related solely to the impact of gender on leadership or on women's employment and empowerment. The evidence brought forth brings insight on how Emirati female school leaders have particularly adopted and implemented distributed the Distributed Instructional Leadership style, that have shaped the learning environment among teachers, and influencing positive student outcomes. The socio-cultural role emerges as a main supporting factor that have further strengthened the mechanism by which better student achievement may be harnessed by the development of a learning organization-oriented school climate. Future research may further examine how the concept of distributed IL is enacted in private schools and what differences may exist between the dynamics of leadership in both public and private schools in the UAE. Researchers may also transform the integrated model into a measurement model that could be tested quantitatively, with possible moderating role of leadership traits and other employability dimensions. Quantitative aspects may include but are not limited to, representation and participation of Emirati Women in leadership roles, economic impact and educational attainment of Emirati Women, and gender pay gap in the UAE. By focusing on these quantitative aspects, researchers can provide a comprehensive and data-driven analysis of women leadership in the UAE, offering insights that can inform policy decisions, organizational strategies, and societal change.

At the practical level, this study offers school leaders and policy-makers in the UAE some new tools to improve students' learning performance and schools' learning environment. It proposes a professional transformation in school leaders' education journey and how more informed distributed IL in schools might be advanced. In addition, the study revealed that in the UAE, students and teachers need leaders who possess robust instructional and organizational skills. Hence, school leaders are invited through this research to effectively embrace students' learning experience and prioritize data-driven decision making to support professional and academic success for all teachers. By investing in data analysis, recent technologies, and providing comprehensive support for teachers, the objectives of IL will ultimately become the conduit for teaching and learning success in UAE public schools. Hence, monitoring student growth and revisiting the existing educational and support programs are essential to supporting pupils' academic, social, and emotional success. Educational institutions situated in similar contexts may benefit from the study findings to enhance and develop their IL practices in relation to school growth and students' academic achievement. In turn, educational leaders of both genders may actively promote and execute collaborative leadership approaches in their organizations, a practice that would render more meaningful engagement among educators, students, and stakeholders to create a more positive and caring learning environment for all. Moreover, the study invites education policymakers to recognize instructional leaders' vital role in shaping education and promoting growth and to use precise and targeted methods to implement educational leaders' development policies. Encouraging further collaboration between the public and private sectors on school leadership and students' achievement as well as providing incentives in the forms of grants for schools that demonstrate the adoption of excellent leadership models and frameworks are suggested.

## CRedit authorship contribution statement

**Ayman Massouti:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Conceptualization. **Nessrin Shaya:** Writing – review & editing, Methodology, Formal analysis. **Shaimaa Mohamed Abdulla Qareiny:** Writing – original draft, Formal analysis, Data curation, Conceptualization.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Acknowledgements

The authors would like to acknowledge the Institutional Review Board at Abu Dhabi University for approving this study.

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