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Research Article

The Quality of Private Early Childhood Education and Care Centers: A Ras Al Khaimah-based Case Study

جودة مراكز التعليم والرعاية الخاصة في مرحلة الطفولة المبكرة: دراسة حالة في رأس الخيمة

Priti Verma[1], Kirsty Hearn[2], Reham Zahran[3], Aisha Alowais[4]

[1]Associate Executive Dean and Assistant Professor, Higher Colleges of Technology, UAE
[2]Ph.D. Student, University of Birmingham, Birmingham, United Kingdom
[3]Community and Customer Experience Manager, RAK Academy, UAE
[4]Research Assistant, Higher Colleges of Technology

ORCID
Priti Verma: https://orcid.org/0000-0001-9545-0810

Corresponding Author: Priti Verma; email: pverma@hct.ac.ae

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Abstract

Background: Quality care and education in the first eight years of life play a critical role in young children's development. Despite how the importance of Early Childhood Education (ECE) has become more widely accepted both in the United Arab Emirates (UAE) and across the broader Middle East region, research studies related to child learning and development in ECE context and quality have been sparse. This article presents findings of the Ras Al Khaimah-based ECE research study which investigated the process and structural quality of privately owned Early Childhood Education and Care centers (ECECs).

Methods: Data were collected from all 39 licensed private ECECs operational in the emirate between 2016 and 2018 using the Early Childhood Environmental Rating Scale-Revised Edition (ECERS-R) and Classroom Assessment Scoring System^{TM} Toddler edition (CLASS^{TM}). Additionally, semi-structured interviews were undertaken, using a self-structured questionnaire and checklist based on the UAE National Child Care Standards.

Results: The findings suggest high variability in ECERS-R and CLASS scores. Subscales such as "Space and Furnishings" and "Activities" differed greatly. However, the average score was high in the "Interactions" and "Program Structure" subscales. The CLASS Toddler dimensions' average rating for all ECECs was below 5 out of 7 range, suggesting a mid-range of scores. Information gathered from class teachers, ECEC managers, and general classroom and ECEC observations provided additional data which led us to understand actual challenges faced by the ECE workforce and ECECs in the emirate leading to lower quality in some cases.

Conclusion: Overall, the quality of ECECs in RAK needs to be improved through improvement plans developed by individual ECECs, bolstered by sound and comprehensive emirate-based policy development. In this paper, we have presented challenges of ECE and have recommended policies to improve the quality of ECECs in RAK and the wider UAE.

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الملخص

الخلفية تلعب الرعاية الجيدة والتعليم في السنوات الثماني الأولى من الحياة دورًا مهمًا في نمو الأطفال الصغار. على الرغم من أن أهمية تعليم الطفولة المبكرة أصبحت مقبولة على نطاق واسع في كل من الإمارات العربية المتحدة وعبر منطقة الشرق الأوسط، كانت الدراسات البحثية المتعلقة بتعلم الطفل وتنميته في سياق التعليم المبكر للأطفال قليلة الجودة ويعرض هذا البحث نتائج الدراسة التي تمت في رأس الخيمة والتي بحثت في أجرات العمليات و نظام ادارة الجودة لمراكز تعليم ورعاية الطفولة المبكرة المملوكة للقطاع الخاص .(ECEC) الطُرق تم جمع البيانات من جميع مراكز التعليم الخاصة والمرخصة الـ ٣٩ العاملة في الإمارة بين ٢٠١٦ و ٢٠١٨ باستخدام أداة التصنيف البيئي للطفولة المبكرة (ECERS-R) ونظام التقييم في الفصل الدراسي (CLASS ^{TM}). بالإضافة إلى ذلك تم إجراء مقابلات شبه منظمة، باستخدام استبيان منظم ذاتيًا وقائمة مراجعة بناءً على المعايير الوطنية لرعاية الطفل في دولة الإمارات العربية المتحدة. النتائج تشير النتائج إلى تباين كبير في درجات ECERS-R و .CLASS اختلفت المقاييس الفرعية مثل "المساحة والمفروشات" و "الأنشطة" اختلافًا كبيرًا. ومع ذلك ، كان متوسط الدرجات مرتفعًا في المقياسين الفرعيين "التفاعلات" و "هيكل البرنامج". كان متوسط تصنيف أبعاد CLASS للأطفال الصغار لجميع ECECs أقل من ٥ على ٧ ، مما يشير إلى درجات متوسطة .إن المعلومات التي تم جمعها من معلمي الصفوف ومدراء المدارس وملاحظات ECEC عامة أدت بنا إلى فهم التحديات الفعلية التي تواجهها القوى العاملة في ECE و ECEC في الإمارة مما أدى إلى انخفاض الجودة في بعض الحالات. الخاتمة بشكل عام، يجب تحسين جودة مراكز ECEC في رأس الخيمة من خلال خطط التحسين المطورة من قبل مراكز ECEC الفردية، مدعومة بوضع سياسات سليمة وشاملة في الإمارة. في هذا البحث، قدمنا تحديات الطفولة المبكرة وأوصينا بسياسات لتحسين جودة مراكز التعليم والتدريب في رأس الخيمة ودولة الإمارات العربية المتحدة.

Keywords: *Early childhood education and care, ECERS-R, CLASS, Quality, Education policy, Ras Al Khaimah*

الكلمات المفتاحية: التعليم والرعاية في مرحلة الطفولة المبكرة، CLASS ECERS-R، الجودة، سياسة التعليم، رأس الخيمة

1. Introduction

Quality care and education in the first eight years of life play a critical role in young children's overall development (Whitebread et al., 2014). Studies indicate that key cognitive development take place before the child reaches preschool and it is, therefore, essential that educational provision for children is equitable, reaching all children without discrimination (von Suchodoletz et al., 2020). Young children with high-quality early childhood education (ECE) experiences have increased vocabularies, better language and mathematics and social skills, have more positive relationships with peers, and score higher

in school-readiness tests (Cloney et al., 2013; Berlinski et al., 2009; Campbell et al., 2002).

Catering to each child's individual developmental needs is essential in providing a solid foundation for future growth and producing productive and responsible citizens (Galguera, 2015). Recent research studies also address how ECE should work toward the development of platforms and frameworks centered on fostering creativity and innovation in learning methodologies (von Suchodoletz et al., 2020). In addition, studies have shown that beyond the academic effects of ECEs, students who attend high-quality ECE programs continue to be healthier, more socially adept, and earn higher incomes than their peers who did not (Heckman & Karapakula, 2019). Of note, one long-term study in the US recently showed that children of parents who attended a high-quality preschool program in the 1960s were better educated, healthier, better employed, and more likely to stay stably married (Mongeau, 2019).

As defined by the National Institute of Child Health and Human Development (2000), the main goal is to be able to examine how differences in child-care experiences would lead to different developmental aspects on social, emotional, intellectual, language development, and physical growth. Based on this, it becomes essential to ensure that through ECE, children have been directed in the right manner and hence help in the overall improvement of social, emotional, and physical growth (OECD, 2006; Schweinhart, 1993).

2. Literature Review

2.1. International studies on quality care in ECEC

A substantial body of research has indicated that "the quality of early education is a significant factor in enhancing children's development, where a higher quality of care and education leads to improved developmental outcomes" (Sylva et al., 2006, pp. 76–77). Evidence also indicates that low-quality care in the early years leads to poorer development outcomes (Besky, 2001; Vandell & Wolfe, 2000). Intervention programs, comprising mainly randomized control trials, have played a key part in highlighting the role that preschool care and education can play in cognitive and academic development, as well as the long-term gains about increased social and economic status (Campbell et al., 2001). As highlighted in the Munton et al.'s study (1995), the concept of "quality" and "effectiveness" in the case of ECE requires the teaching professionals to keep in mind

various aspects such as that of interpersonal interaction carried out between teachers, children, and parents, improvement in the physical environment or how different supporting materials are placed, as well as the program structure or components of different educational programs that are offered to children. In addition, Munton et al. (1995) also stress various factors such as a professional and stable workforce, effective leadership, developing and implementing age-appropriate curriculum, continuous quality improvement system, family participation, and interactive activities as well as sustainable funding mechanisms which are necessary for a better relationship between children and teachers.

In non-experimental studies such as the NICHD study, when controlling for a large number of contextual and background factors, quality early years education and care provision emerged as a positive indicator of general cognitive abilities in children, as well as of linguistic development and readiness for school (NICHD Early Child Care Research Network, 2005). The first UK-based large-scale and longitudinal study on outcomes on early year provision was the Effective Provision of Pre-school Education (EPPE) project which involved more than 3000 child observations. Its principal goal was to explore the effects of early year's provision on the social and behavioral development of children as well as their attainment from their entry to school-aged 5 (Sylva et al., 2004). This multimethod study enabled EPPE researchers to identify the structural characteristics of the most effective educational settings, as well as impact of different characteristics of early year's educational provision. Results showed wider-ranging vocabularies, increased linguistic skills-sets, and higher numeracy skills upon entry to primary school for those who attended preschool centers (Sylva et al., 2006). The EPPE project conclusions indicated that "quality in pre-school practice must be contextualized in a way relevant to the values of a particular society" (Dahlberg et al., 1999).

Studies conducted in the USA have highlighted how teacher–child quality in Early Childhood Education and Care centers (ECECs) is strongly influenced by various structural factors in the school environment despite various other studies that have provided mixed reviews (Suchodoletz et al., 2020). In recent years, it has become apparent how a significant relationship has been established between teachers' pre-service education and teacher–child interaction indicating importance of improving the quality of ECECs. Specifically, it can be seen as to how literature established over the years highlights a considerable level of evidence of how teacher–child interactions are lower in classrooms with a larger percentage of children from different national, racial, or ethnic backgrounds and are relatively higher in classes with a limited number of students. As a result of this,

there is a strong relationship between the ECE quality and the interaction that can be seen between teacher and child (Suchodoletz et al., 2020).

Over the years, it can be seen how in case of the Organization for Economic Cooperation and Development (OECD) countries, where there are multiple students from various backgrounds, it is essential to ensure that the quality of ECEs is improvised to align them with different stages of the country's development and growth (Whitebread et al., 2014). Specifically, international research highlights how regions such as Latin America, Africa, Asia, and the Middle East suffer from low quality of ECEs which impacts the further growth of the child and the ability to understand more complex topics as well as interaction carried out. For instance, the research developed by Whitebread et al. (2014) conducted by the Qatar Foundation takes into account how lack of efficient teacher qualifications as well as lack of the necessary physical requirements leads to a lack of developing effective policies for the ECEs. In addition, as a result of the limited facilities in these regions, it becomes relatively difficult to ensure that students can experience creative skills, competencies, as well as express through different activities (Whitebread et al., 2014).

2.2. ECE research in the UAE

In recent years, the UAE has been able to establish various institutions for providing support and development toward the ECE pathway, including the "Abu Dhabi Early Childhood Authority," which developed systems targeting overall child development, and the Dubai Early Childhood Development Center which provides a transdisciplinary assessment as well as early intervention services to children with various special needs (Takriti, 2020). The ECD Strategy 2035 aims to develop strong values for the ECE sector in Abu Dhabi and across the wider emirates, with a clear vision for holistic early childhood development targeting health and nutrition, family support, child protection, and early care and education. The launch of the World Initiative for Early Childhood Development in alignment with the UAE Vision 2021 aims to provide an integrated framework for cultural and productive values that they can benefit from. The Ministry of Education (MOE) has also focused on developing platforms for young children's development, experiences, and interactions to enhance emotional well-being and how they can provide relevant support and guidance to parents for the development of educational and cognitive activities for these children at young stages through a range of stimulating activities focused on different age groups (Muhonen et al., 2020a, 2020b). Collectively, these institutions across the country provide a comprehensive strategy for

childhood development through consistent evaluation and to ensure that this strategy is translated into different programs, policies, and activities across different institutions. However, most of these developments, and subsequent activity working toward the achievement of national ECE goals, are concentrated in Abu Dhabi and Dubai, while developments in the more northern emirates are still lagging (Bennett, 2009).

2.3. History of ECE regulation and management in the UAE

The first public kindergarten was established in Ras Al Khaimah in 1955 (Al-Momani et al., 2008), and the first public kindergarten in the UAE became operational in Abu Dhabi in 1972 (Karaman, 2011). Later, several public kindergartens were established in Dubai and other emirates. With the introduction of Federal Law No. 5 on Child Care Nurseries in 1983, the Ministry allowed private nurseries and kindergartens to provide care and education for children aged 45 days to 5 years of age (United Arab Emirates Government, n.d.).

From the 1980s till 2016, ECE was coordinated by three separate ministries at the federal level. The Ministry of Social Affairs governed licensing, the MOE set the curriculum and standards for public kindergartens, and the Ministry of Health (MOH) monitored health-related issues. In early 2016, the private nurseries came under the Federal MOE, which now oversees all its aspects of ECEC. The MOE recently published operational nursery licensing to ensure compliance of ECECs with conditions of the local Municipality, the Director of Civil Defense, and the Public Health Department, as well as checks upon ECEC's compliance with the Early Childhood Education Institutions (ECEI) Taskforce's Standards through the nursery. Important to the research design of our study, "early childhood" is currently defined as age from conception to eight years by the Abu Dhabi Early Childhood Authority and from birth to six years as identified by the Dubai Early Childhood Development Center, which thus determined our population frame (ECD, 2021).

2.4. Evolution of current ECE standards and reforms in the UAE

In the past, the Abu Dhabi Education Council (ADEC), the Sharjah Education Council (SEC), and the Dubai's Knowledge and Human Development Authority (KHDA) have played a leading role in defining minimum acceptable requirements for ECE provisions in Abu Dhabi, Sharjah, and Dubai, respectively (The United Arab Emirates Government Portal, 2018).

During this past decade, there has also been some clarity in defining ECE goals worldwide, which has had a regional and national impact on the ECE sector in the UAE. The Sustainable Development Goals (SDGs) set by the United Nations have a clear focus on ECE quality and how to achieve it (The United Arab Emirates Government Portal, 2018). The SDGs include goals such as ensuring equal access of all girls and boys to quality ECE, substantially increasing the quality of ECE teachers by 2030 (United Nations, 2015). To participate in the global agenda, and to adhere to the SDGs, the UAE for the first time included the development of the ECE sector in its overarching strategies, such as in the UAE's Vision 2021 National Agenda (UAE Vision 2021, 2018) and UAE's 2071 Centennial five-decade government plan (Ministry of Cabinet Affairs & the Future, 2018).

Since the transfer of supervision of the ECEI to the MOE, the Inspection Directorate has developed and updated all types of compliance operations in areas of childcare and protection. This Directorate ensures that each ECEC in the UAE adheres to the policies, regulations, and rules of action established by the MOE. The ECEI Compliance Inspection Manual also outlines all tools and models that will be used to ensure ECEIs comply with laws and regulations governing their work (Dillon, 2019). A Nurseries Investor Guide was also issued by the MOE to provide clear guidance on processes and procedures to apply for an MOE operational private nursery license (The UAE Ministry of Education, 2018).

Research studies also indicate UAE's focus on equitable education within the region (Yoshikawa et al., 2020). This can be seen through UAE's Digital School Initiative where the focus of the country has been to make education, including ECE, available through online platforms during the COVID-19 pandemic (The UAE Government Portal, 2018). Moreover, an integral initiative that can be seen in the case of GCC countries relates to how there is considerable focus in recent years on how ECE needs to be managed through strong parental participation in education which is enabled through comprehensive strategies (Atkinson et al., 2020).

2.5. RAK Study overview and objectives

As discussed, the importance of ECE has become widely accepted in the UAE, the Arab Gulf region, and the broader Middle East in general, yet research studies related to ECE quality, and consequent child development outcomes in these contexts, have been scarce. This comprehensive census case study filled this gap by assessing the

structural and process quality of all private ECE providers in UAE's emirate of Ras Al Khaimah using a mixed-methods approach.

This comprehensive census case study was completed in 2018 and assessed both structural and process quality indicators using a mixed-methods approach to collect and analyze data from all private ECE providers in the UAE's emirate of Ras Al Khaimah. This research design and focus made it pioneering on both the national and regional levels. The overall purpose of this case study is to evaluate the quality of ECECs in Ras Al Khaimah using contextualized international tools and a questionnaire and checklist developed from the UAE's Nursery Child Care Standards (Dubai Women Establishment, 2009) to better understand the status, challenges, and opportunities of quality ECE provision improvement in Ras Al Khaimah and the Emirates. This paper informs conditions of ECE in RAK reflect ECE sector improvement needs across the country and focuses equally on suggesting ECE policy recommendations based on this study's findings appropriate for this context.

As such, the overarching objectives of the study were:

1. *To evaluate the process and structural quality of privately owned ECECs in Ras al Khaimah.*

2. *To offer recommendations for policy and further research for benefit of the Ras al Khaimah ECEC community and beyond.*

3. Methodology

3.1. Philosophical underpinnings and research design

The overarching epistemological foundation of this mixed-methods census case study was one of pragmatism, oriented toward the understanding of real-world problems and practices, and which centers on the research questions as the determining factors for research design and implementation (Biesta, 2010). Adopting a mixed-methods design provided a more complete understanding of the research problem, permitting the complementarity of quantitative and qualitative strands as well as accommodating context-specific quality determinants which may not have had the opportunity to emerge through the scales. Collecting quantitative data in this emerging area of research in the UAE is not enough to get insight into the process quality of ECECs. The research design followed a convergent mixed-methods parallel research design, where quantitative and qualitative data were collected and analyzed concurrently but independently (Creswell

& Plano-Clark, 2017). Using this research design, the researchers delved into assessing the quality of ECECs in RAK by collecting data through observations, interviews, questionnaires, surveys, and standardized tools. The proactive triangulation of these structural, process, and contextual data will inform the design and implementation of ECE policy recommendations in future work.

3.2. Procedures

3.2.1. Instruments

Early Childhood Environmental Rating Scale-Revised Edition (ECERS-R): ECERS-R measures the early childhood setting's environment and includes spatial, programmatic, and interpersonal features that directly affect the children and adults. This tool uses the observation method to rate each of the 43 items categorized under seven subscales, namely space and furnishings, personal care routines, language-reasoning, activities, interaction, program structure, and parents and staff (Cryer et al., 2005). Each item is expressed as a 7-point scale with descriptors for 1 (inadequate), 3 (minimal), 5 (good), and 7 (excellent) (Cloney et al., 2013). Outcome measures for ECERS-R include item, average subscale, and average overall scale score. To score an item, a rating (1–7) is assigned based on item indicator/s observed. And to calculate average subscale scores, scores for each item in the subscale are summed and then divided by the number of items scored. The average overall scale score is the sum of all item scores for the entire scale divided by the number of items scored. ECERS-R profile permits a graphic representation of the scores for all items and subscales to be used to compare areas of strengths and weaknesses and to select items and subscales to target for improvement (Appendix 1).

Classroom Assessment Scoring System^{TM} (CLASS^{TM}): CLASS Toddler edition is an observation instrument developed to assess effective teacher–child interactions in classrooms and childcare settings. It focuses on process quality, examines teacher–child interactions in the context of unique needs of children in their developmental period of 15–36 months. This tool breaks high-quality teacher–student interactions into two crucial domains: emotional and behavioral support and engaged support for learning (La Paro et al., 2012). Positive climate, negative climate, teacher sensitivity, regard for child perspectives, behavior guidance, facilitation of learning and development, quality of feedback, and language modeling are the eight domains' dimensions of outcome measures of CLASS Toddler edition. A rating ranging from 1 (minimally characteristic)

to 7 (highly characteristic) is given for each dimension and represents the extent to which that dimension is characteristic of that classroom. CLASS Toddler edition provides eight domain scores, overall emotional and behavioral support (average of positive climate, reversed negative climate, teacher sensitivity, regard for child perspectives, behavior guidance), and engaged support for learning scores (average of facilitation of learning and development, quality of feedback, and language modeling) for each ECEC. Summing emotional and behavioral support and engaged support for learning gives the CLASS score for each ECEC (Appendix 2).

To showcase the quality level achieved by each ECEC after data collection, we have added three additional quality levels, two suggesting the quality between inadequate and minimal, four suggesting the quality between minimal and good, and lastly, six suggesting the quality between good and excellent. Item scores were based on the situation that was observed or reported by staff. In the absence of observable information to base our rating on, we used answers given by the staff during the question period to assign item scores. Simultaneously, we also noted salient information related to each item based on our observation and have reported in the results section.

NCCS based questionnaire and checklist: The National Child Care Standards are UAE-based standards to improve the quality and standards of early care and education. These standards are divided into eight specific objectives representing the minimum requirements that should be met in a child-care setting – Licensing and Administration, Building and Equipment, Child Care Organization, Care and Learning Activities, Safety and Security, Healthcare, Nutrition, and Partnership with Parents. A questionnaire and checklist based on the NCCS were developed to assess quality parameters that were not covered by the ECERS-R or CLASS Toddler edition. Both were completed by interviewing the ECEC manager/teacher to collect demographic information about ECECs such as class size, fee structure, curriculum, location of ECEC and to complete the NCCS-based questionnaire and checklist.

3.2.2. Pilot study

The pilot study was completed in five nurseries. Nursery managers were contacted and the purpose of the research study was explained. A consent letter explaining the purpose, risks, and benefits of participating in the study was also shared. Once oral/written consent was secured, dates for data collection were identified. We used two tools during the pilot study, namely ECERS-R and CLASS Toddler edition. The questionnaire and checklist were developed before the main study. Based on the findings,

we adjusted both scales to reflect the local context. NCCS-based questionnaire and checklist were also revised during the interviews and observations. The quality areas covered by ECERS-R and CLASS Toddler edition were deleted from both questionnaire and checklist to avoid duplication. Demographic data questions were added as this information was thought to help the research audience.

3.2.3. Data collection

Data were collected using two instruments (ECERS-R and CLASS Toddler edition), and NCCS-based self-structured questionnaire and checklist. Each ECEC required between three and six visits and each visit lasted for approximately 4 hr. Researchers aimed to collect complete data from a nursery/ECEC in a week. The use of ECERS-R and CLASS Toddler edition makes this research unique since these instruments have not been used to assess the quality of ECECs within the UAE before this study. ECERS-R and CLASS Toddler edition required live observation of ECEC and classroom, respectively, for data collection. The questionnaire and checklist were completed by addressing questions to the Principal/Manager of each ECEC during the semi-structured interview. At a later date, debriefing sessions were organized in each ECEC to share research findings and discuss improvement plans with the ECEC administrators.

3.2.4. Researchers' training and reliability

All researchers completed training sessions, and inter-rater reliability above 80% was established during the pilot and again for the main study. Training in the use of instruments and interviews was provided to all researchers, as well as regular meetings were organized to discuss any procedural or ethical concerns throughout the study.

3.2.5. Study sample

The study sample consisted of all 39 privately owned ECECs operational in RAK. All ECECs which were not included in the official list were identified through a lengthy process of investigation using the snowball approach. The sample is exclusive to the Ministry of Social Affairs/Education licensed private-owned ECECs, which are the majority in RAK. Publicly funded ECECs were excluded from this study.

3.2.6. Research ethics

Adherence to ethical procedures was integral to the research design. An ethical and data management policy including protocols to ensure data confidentiality was agreed to by all researchers before the commencement of data collection. A consent letter prepared by the Sheikh Saud bin Saqr Al Qasimi Foundation for Policy Research was given to all ECEC managers informing them of the voluntary and confidential nature of the research study. Verbal consent was obtained from each ECEC manager, as well as brief initial meetings to discuss the purpose, methods, benefits, and to establish trust and rapport before admittance to the classroom was held. The Ministry of Social Affairs, Ras al Khaimah, was contacted to obtain a list of registered private ECECs in RAK.

3.2.7. Interview structure

Where language was a barrier, a researcher who spoke both Arabic and English was always present to ensure clarity of questions and answers. NCCS-based questionnaire and checklist provided structure to interviews with ECEC managers/teachers. Questionnaires were completed on paper and interviews were recorded via notetaking. Conscious of the nature of interviews as a mediated encounter, our analysis recognized that question and answers are grounded in context and a process of construction between two or more individuals, which can be impeded or supported through the quality of rapport and depth of discussion (King & Horrocks, 2010).

3.2.8. Data analysis

Data analysis was descriptive. The raw scores were converted to subscale/dimension average scores and a profile for each ECEC was created for ECERS-R and CLASS scales. The key themes that emerged during interview sessions with ECECs managers using the questionnaire and checklist were noted.

3.3. Limitation of the study

Prior scheduling of a week-long appointment for data collection in ECECs may have allowed ECE managers to display the ECEC's best picture. This staging may have influenced our results, and it could be a limitation of this study. Another limitation could be that the study covered private nurseries based in RAK and that does not allow us

to generalize it on all of the UAE. However, other emirates have a similar population structure and a vast spread of privately owned ECECs, so the study findings can inform their ECEC regulators.

4. Results and Discussions

4.1. Demographic profile of ECECs in RAK

The main characteristics of RAK ECECs are presented in Appendix 3. These characteristics include the year of establishment, ECEC structure, student enrolment numbers, student nationality, adult–child ratio, nationality of management, curriculum, and fee structure. The majority of ECECs were established after 2007 except one which was part of a school. Out of the 29 ECECs, only 6 were a part of Pre-K-12 school and the rest were stand-alone nurseries. several enrolled students ranged from 14 to 317 which suggests a huge difference in the scope of services offered to the community. Most ECECs had children enrolled from mixed nationalities such as Emiratis, Jordanian, Palestine, Egyptian, British, French, German, Indians, etc. The adult–child ratio in the classroom was varied ranging from one adult for four children to one adult for twenty-five. However, we noted a couple of nurseries had children mainly from one nationality such as only the UAE and other Arab nations. Adult nursery owners/managers belonged to diverse countries such UAE, India, UK, Germany, South Africa, Jordon, Syria, Pakistan, and many more. Out of the 39 nurseries, 25 had self-designed curricula based on best practices in the early year's curriculum. The fee structure was quite varied ranging from AED 600 to AED 2,000 per month.

4.2. Location of ECECs in RAK

Each ECEC was pinned on the RAK Google Maps to help parents in the community decide while choosing a nearby ECEC for their infant/child. Pinned ECEC locations also suggest that early childhood provisions to young children (up to 4 years old), expats, or UAE nationals, are not distributed evenly across the emirate.

The pinned ECECs on the RAK map suggests clustering of ECECs in affluent and expat areas, thus limited ECE opportunity for children living in other areas (Appendix 4).

4.3. Results overview

Overall, the quality of ECECs varied considerably in Ras Al Khaimah. The average ECERS-R and CLASS scores were mid-range, suggesting lower ECE quality. Themes based on NCCS also suggest the need for improvement. ECE policy recommendations that can potentially be used by local and federal stakeholders will be presented based on research findings in the last section.

This section outlines key findings of this mixed methods, census case study, as well as their implications for improving the ECEC quality provision and subsequently social, cognitive, emotional, physical, and developmental well-being of young children in the emirate. Researchers collected and analyzed data from all 39 private ECECs, and results are organized below by the scales used to measure the ECECs' structural or process quality. For the ECERS-R scale, results presented include quality levels using ECECs' overall and subscale scores. Similarly, scores of ECECs on the CLASS Toddler process dimensions are presented in the same format. Lastly, key themes emerging during interview sessions with ECECs managers using the questionnaire and checklist are discussed. Overall, ECEC's quality varies considerably in Ras Al Khaimah. The average ECERS-R and CLASS scores were mid-range, suggesting scope for improvement.

4.4. Early Childhood Environmental Rating Scale-Revised edition (ECERS- R)

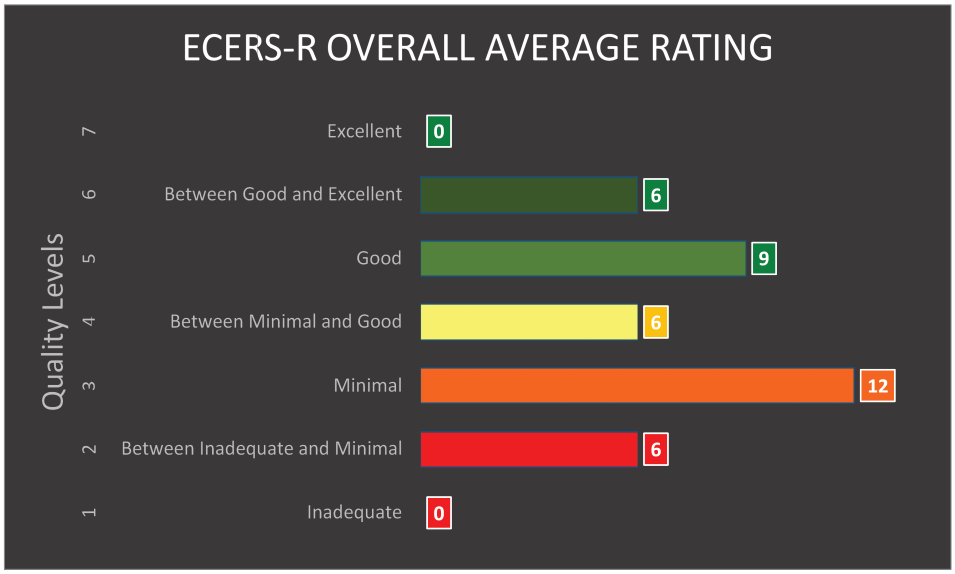
In Ras Al Khaimah, the overall quality of ECECs', in terms of space and furnishings, provisions to enhance language and reasoning, daily activities, interactions among children and staff, and program structure vary considerably.

4.4.1. Quality levels based on ECERS-R overall average rating

Data on 39 ECECs show that during 2016–2018, 6 ECECs (15%) scored a rating of 6, having a "quality rating between good and excellent," 9 ECECs (23%) received a "good" quality rating, while 24 ECECs (61%) scored below 4, which is a "below good" quality rating, as per their overall ECERS-R average ratings (see Figure **1**). The ECERS-R overall average ratings suggest that 46% ECECs fall under the category of minimal and below quality, which is an indicator that ECECs need immediate intervention.

Figure 1

Overall quality levels of ECECs



4.4.2. Quality levels based on ECERS-R subscale average rating

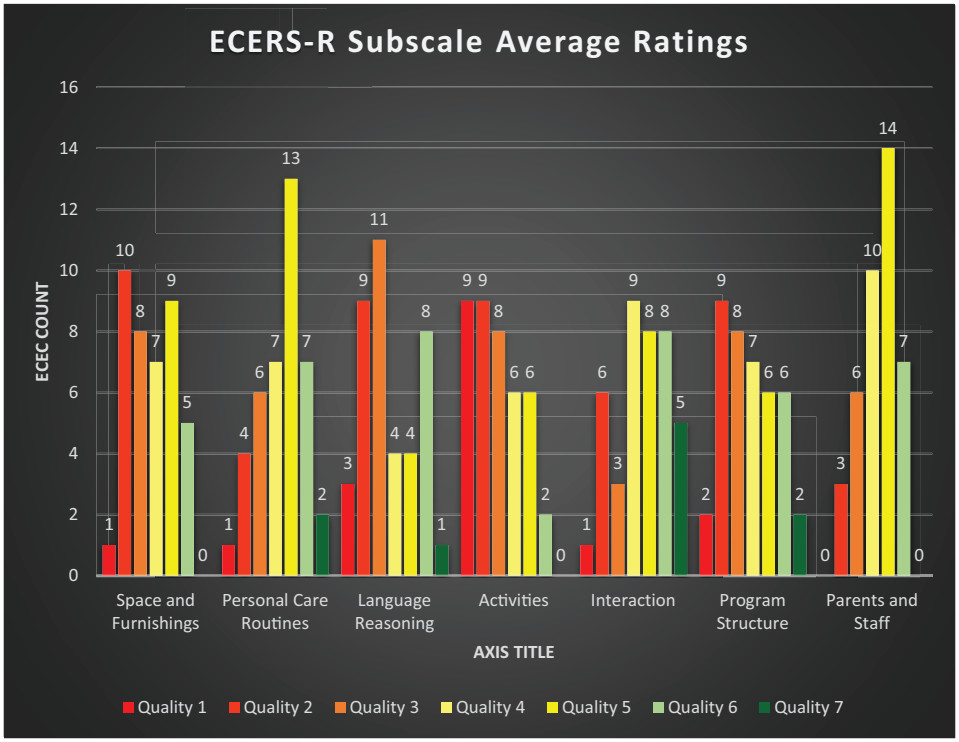
ECERS-R consists of seven different subscales and includes 43 items. The ECERS-R average subscale ratings for these items highlight the strengths and weaknesses of ECEC's environment. The subscale average rating of ECECs reveals that none of the average ratings for any items were above a 5, or a "good" quality level (see Figure **2**). Individual subscale average ratings of several ECECs were far below the "good" quality level, with implications for quality of care and child well-being. In addition, the average subscale ratings were raised to a 4.8 rating (between "minimal" and "good" quality level) due to the inclusion of a few high-quality ECEC outliers operating in Ras Al Khaimah.

Under the following headings, ECEC-based observations regarding each of the ECERS-R subscale measures are discussed. In addition, items in each subscale that are below the minimum expected quality levels for ECECs are highlighted, their implications for children's health, well-being, and development are explained, and their impact on the structural and process components of quality care are presented.

1. Space and Furnishings: The average subscale rating for space and furnishings was close to a 4, suggesting a quality level between "minimal" and "good." However, there were ECECs (26%) whose quality rating was below the minimum and 2% had an inadequate quality rating. Particularly, furniture for relaxation and space for privacy was commonly lacking in classrooms. Young children grew bored and disinterested when forced to sit at the desks for long periods, and researchers

Figure 2

Quality levels of ECECs by subscale average ratings



noted that children were sitting for as long as 2 hr on one chair as teachers rotated between rooms. This can have multiple negative unintended consequences for the young child, both physically and mentally. Children who showed emotional distress often had nowhere to seek a quiet space to practice uninterrupted self-regulation, resulting in unruly and aggressive behavior.

2. Personal Care Routines: Except for 13% of the participating ECECs, the rest met the “minimum” quality rating level, and the average subscale score was close to a “good” quality level of 5 on this subscale. However, improvements can be made in nap/rest facilities provided to children. Opportunities for naps and rest time were often not in line with children’s age group needs, leading to exhausted and anxious children. We observed children displaying aggressive and disruptive behavior, contributing to a negative environment in classrooms. Many teachers resorted to addressing poor behavior (normally unsuccessfully) with discipline methods such as shouting, threatening to cut down on the playtimes, or promises of sweets, which are not techniques in line with established classroom or behavioral management best practices.

3. Language-Reasoning: Lack of access to, and use of, books and pictures in classrooms was a pervasive issue in Ras Al Khaimah-based ECECs. Minimal use of books and pictures was observed in classrooms where they were available. The average quality level for this subscale was approximately 4, or "minimal." Another observed deficiency was inadequate use of language to facilitate the development of reasoning skills, as well as language fluency, in most of the classrooms. Nearly 23% of ECECs received the quality level of 2, which was below the minimum standards expected, and 8% got a quality level rating of 1, suggesting severely inadequate support of children's language and reasoning development.

4. Activities: Activities received a particularly poor subscale average rating of 3.4, which means a rating of just above the minimum quality. ECECs scored particularly low in all items, from fine motor skills to dramatic play, on this subscale. The dramatic play was overlooked in a majority of, and many managers had little or no understanding of what it entails and many benefits and support it could offer to develop language and reasoning skills, as well as confidence and creativity amongst children. Also, fine motor skill activities were not a high priority for these classrooms that focused mainly on rote learning. Additionally, there was often a lack of resources (such as puzzles) to offer to all children equitably in a classroom.

   Art was variable in its provision in ECECs. Even when it was offered daily in some ECECs, it was often done for marketing purposes to create content for ECEC blogs and other social media platforms for parents and the community. The implications of this practice often mean that there was low priority placed on the time offered to children to be creative, minimizing the provision for highly individualized play and skill development in these contexts.

   Nature and science activities were also neglected in ECECs, and teachers stated a lack of resources to be the key factor. However, the research team encountered very successfully, and interesting science lessons were planned and delivered with very few resources, including games and experiments, using cheap or handmade materials, in a few ECECs. Nearly a quarter of ECECs (23%) received the quality level of 2, which suggested that such activity provisions were below minimum standards, and 7% of ECECs were noted as providing inadequate activities to children in classrooms, as they received a quality level of 1.

5. Interaction: Nearly 18% of ECECs achieved a low-quality rating in terms of interaction among students, between students, and their teacher. On the other hand, staff–child interactions received a higher rating, close to a 6, indicating very good

interactions among the staff and children. Fifty-four percent of ECECs scored a quality level of "good" and above, and some ECECs received a level of 7, or "excellent", on this subscale. Under this subscale, the supervision of children by teachers and discipline techniques used by teachers were also observed. The supervision of children during gross motor activities was good. However, the general supervision of children received a rating of about 4.5, as we observed children left unsupervised on multiple occasions. For example, when they were walking between buildings to access the bathroom or in cases where there was no support staff around and teachers had to attend to a particular child while leaving the remaining students alone in the classroom. Most ECECs lacked any form of disciplinary policy and while the use of redirection techniques did occur, there was a widespread tendency to use ineffective discipline techniques throughout the day just to get children to follow basic routines. Discipline received a rating of 4, which suggested a quality level of between "minimum" and "good."

6. Program Structure: All the items in this subscale have room for improvement since the average quality rating score of this subscale was around 4, indicating an average level of quality between "minimum" and "good." In this study, results were skewed by a few high-quality ECECs whose schedules were found to be balanced. Scheduling was observed to be a consistent issue across most of the lower-quality ECECs in Ras Al Khaimah. A flexible schedule, where children could move between activities and rooms, indoors and outdoors, and which successfully alternated between active and quieter periods, was missing. Group time also appeared as an issue that needs to be addressed, as in ECECs without interest centers, it was not possible to allow a range of individual and small group activities to happen simultaneously.

   In such classrooms, children experienced all activities and routines as a classroom group, which may not be stimulating enough for children, and may not provide opportunities for informal conversations between children and teachers or support staff, expressing creativity, building, or learning independently. Across ECECs, a lack of activity centers and traditional teaching pedagogy may be having negative implications on children's learning experiences and development in low-quality ECECs. While 5% of the ECECs received an inadequate quality level of 1, 23% received a quality level of 2, suggesting a lower than minimum quality rating.

7. Parents and Staff: Provisions for the personal needs of staff were observed to be of an average quality level in Ras Al Khaimah ECECs. This subscale's average

rating was 4.7, which is close to the "good" level. However, a couple of items on this subscale scored poorly, such as the lack of access to storage for personal belongings of teachers and staff, break times for teachers, and opportunities for professional development through in-house or external training. The lack of such provisions could prevent teachers and staff from being fully invested in their roles and may lead to stagnation in their career and may adversely impact the professionalization of the field.

4.5. Classroom Assessment Scoring System (CLASS^{TM}) dimensions' average ratings

CLASS dimensions are based on developmental theory and research suggesting that interactions between young children and caregivers are a primary mechanism of child development and learning (La Paro et al., 2012; Morrison & Connor, 2002). A teacher at a high-quality ECE provides positive interactions, attention, support, guidance, and a variety of enriched play experiences and learning opportunities in a safe environment. To provide specific information about the quality of the classrooms, average ratings for CLASS dimensions are presented.

Overall, CLASS Toddler dimensions' average rating for all ECECs was below 5 out of 7, suggesting a mid-range score concerning holistic effective emotional and behavioral support in teacher–child interactions in Ras Al Khaimah ECE classrooms and childcare settings (see Figure **3**). While this would suggest that the quality of provisions was neither good nor bad, in truth it highlights a larger underlying issue with regards to consistency within and across centers, and a lack of prioritization, focus, and training on accepted and emerging social, emotional, and developmental theories and practices that inform standards and best practices internationally. The trend could be interpreted as a focus on the number of students, not the quality of processes and practices.

Under the following headings, ECEC-based observations regarding each of the CLASS process dimension measures are discussed, which represents the extent to which that dimension is characteristic in ECECs. This section concludes with a brief overview of the implications of these ratings, providing examples of what they entailed in the classroom.

1. Positive Climate: This dimension reflects the average level of warmth, respect, and enjoyment communicated verbally and nonverbally in the classroom and childcare

settings. ECECs rating was approximately a 5 on this dimension, signifying a mid-range, positively reinforced connection between the teachers and children, with room for improvement.

2. Negative Climate: Some level of negative climate was observed in all classrooms, which reflects the overall level of expressed negativity, as the average rating score for the nonnegative climate dimension was 4.3. This rating shows the prevalence of negative reinforcement of behaviors and corroborates the findings from the ECERS-R subscale, which highlighted the lack of disciplinary and redirection techniques utilized consistently in ECECs. This can leave children bereft of consistent routines and a sense of safety, stability, and support negatively impacting their development.

3. Teacher Sensitivity: The dimension of teacher sensitivity encompasses the teacher's responsiveness to and awareness of children's individual needs and emotional functioning. It also includes the teacher's availability as a secure base for the children, providing emotional stability and support. ECECs rating was in the mid-range with a 4.6 on this dimension.

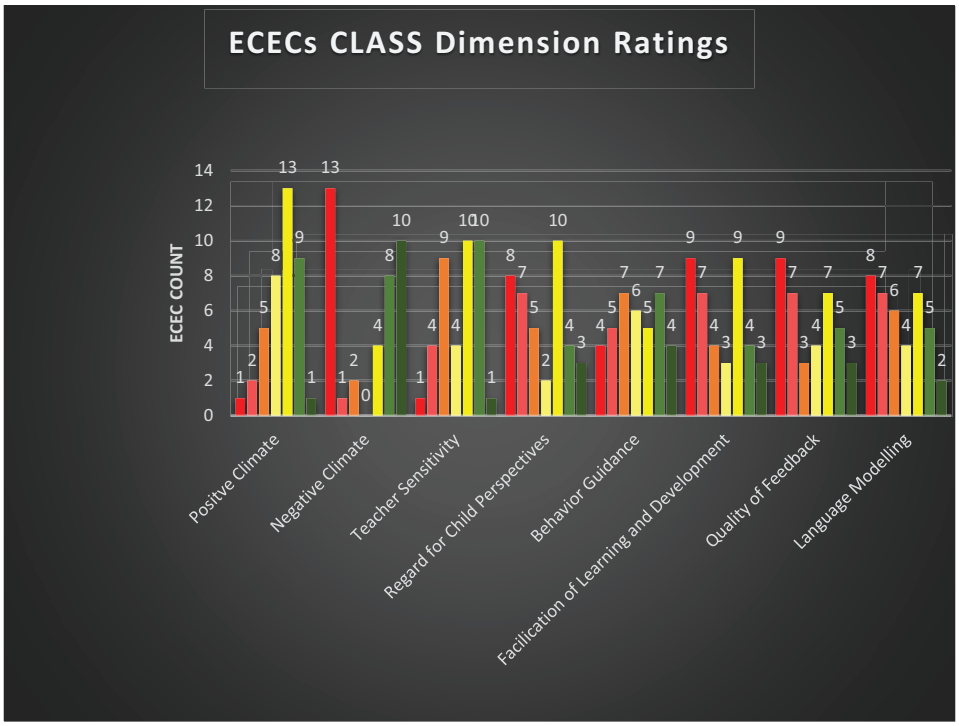
4. Regard for Child Perspectives: The average score for this dimension was on the lower side of mid-range, 3.8, highlighting the fact that teacher's interactions with children and classroom activities had less emphasis on children's interests, motivations, points of view, and independence and responsibility among children was not promoted much, limiting children's opportunities for growth.

5. Behavior Guidance: Dimension of behavior guidance received an average rating score of 4.4, suggesting the teacher's average level of ability to promote behavioral self-regulation in children by using proactive approaches, supporting positive behavior, and guiding and minimizing problem behavior.

6. Facilitation of Learning and Development: The dimension of facilitation of learning and development considers how well the teacher facilitates activities to support children's learning and development, as well as observes how the teacher connects and integrates learning into activities and tasks. The average rating score for ECECs was found to be a concerning 3.8, which is on the lower end of mid-range and highlights the pressing need for professionalization of ECE teaching, as well as the disconnect between ECECs as education centers and for-profit businesses.

Figure 3

Range of CLASS dimension's average ratings



7. Quality of Feedback: Quality of teacher's feedback in response to what children say and/or do can promote learning, understanding, and children's participation in the classroom. This dimension's scores were also in the mid-range.

8. Language Modeling: The quality and quantity of teachers' use of language-stimulation and language-facilitation techniques to encourage children's language development were observed. A similar trend of a lower mid-range rating, 3.7, was observed for this dimension too.

All these findings for CLASS must be understood in the context of the prevalence of rote learning classroom practices in many ECECs in RAK. We have observed a real absence of effective language use in the classroom. In these classrooms, the research team rarely observed (1) individual teacher–child conversations, (2) children asking questions, or when they did, they received one-word answers, it was also observed that (3) assistants worked in complete silence throughout the observation, and (4) children lacked materials such as stories read to them, or dramatic play props were used to stimulate conversations. All these observed behaviors are not aligned with internationally recognized and evidence-based best practices that have had proven social, emotional, and developmental gains for young children. For the many children

with speech delays coming from language-poor households, this was an, even more, grave concern.

4.6. UAE National Child Care Standards

A questionnaire and checklist based on the NCCS were developed to assess quality parameters that were not covered by the ECERS-R or CLASS Toddler edition. In this section, we are highlighting key points noted during the semi-structured interviews with the ECEC manager/teacher. Several themes emerged from these interviews and they are covered in the discussion section.

ECECs in Ras Al Khaimah have not actively referred to any ECE standards in the past. Few ECEC managers were aware of NCCS, which was expected to be followed in the absence of national ECE framework. Although the new ECEI standards were announced in 2016, most of the ECEC managers and staff were not aware of these standards until 2018 when the second iteration of ECEI standards was published.

1. Location, Building, and Equipment: All ECECs were in a quiet area, which allowed for the safe arrival and departure of children. The ECEC classrooms were either on the ground or first floor of a multi-story building or stand-alone structure and had the necessary licenses secured from the Municipality, Directorate of Civil Defense, and Public Health Department. However, many of the ECECs did not have basic standards of natural ventilation and light in classrooms, enough activity rooms according to the children's age groups, insufficient net floor area per child, and no separate infant sleeping room. Also, quite a few ECECs did not have enough toilets and washbasins suitable for independent and safe use by children, or some existing ones were near activity rooms.

In addition, a few ECECs did not have proper diapering areas for infants and toddlers, and sometimes hand washing and diapering areas were located close to the food preparation area in the same room. This trend continued with some ECECs not having a facility for a nurse room equipped with first-aid equipment and a provision for temporary care and isolation of a sick child. Hygiene and sanitation have grown even more important with the ongoing pandemic and are thus deserving of attention for the safety and health of children.

Almost half of the ECECs in Ras Al Khaimah did have a garden to allow children to experience and interact with and be stimulated by the natural environment. The pieces of furniture in ECECs were also child-sized, readily accessible, comfortable, durable,

easily movable, cleaned and maintained, and insufficient quantity in almost all ECECs. However, only a few centers had furniture made of natural materials and in neutral colors, as per the standards. Most of the ECECs had age-appropriate, washable, safe, and non-toxic equipment, materials, and toys, however, many were not using learning materials compatible with the adopted curriculum.

2. Supervision of Child Care and Education: All ECEC managers and/or supervisors, in addition to their administrative duties, were responsible for the overall supervision of the ECECs' physical environment, assignment of duties and supervision of staff, parent relations, and the preparation of the unit and daily lesson plans. About 66% of ECECs had a qualified childcare supervisor responsible for the care and supervision of a specific group of children, assisted by an adequate number of qualified childcare assistants and nurses. A similar trend was observed in teachers' qualifications. Only a few teachers had bachelor's degrees in Education or ECE, and many of the ECECs did not have a professional development plan in place to improve their performance in childcare and ECE. Also, only about 50% of the ECECs followed the teacher/child ratio as per the NCCS standards, and some were operating as a full-time ECEC, and others as part-time (club, summer camp, daycare) centers, or a mix of both.
3. Safety and Security: Most ECECs had adequate safety features in their schools. However, 15% of ECECs were not in compliance with all directives of the General Directorate of Civil Defense adequacy and validity of alarm systems, fire extinguishers, electrical systems, stairways, exits, and direction signs. Almost 50% of ECECs had not established clear procedures for emergency evacuation of the buildings and did not have periodic fire drills with children. Only a few ECECs had maintained insurance against all risks and accidents covering children, staff, and third-party liability, and the rest had no insurance at all.
4. Healthcare: Ten percent of ECECs were found not to comply with the standards concerning general hygiene, which requires ECECs to implement a comprehensive procedure for cleaning, disinfecting, and sterilization of the place, equipment, and furniture as necessary, as well as after each use, to always ensure the protection of children. Again, the recent pandemic places urgency on the needs of ECECs to comply with health and sanitization requirements.

All ECECs provided, and maintained in efficient order, a fully equipped first-aid kit and placed it in a location known to all staff, away from the reach of children. Thirty-three percent ECECs did not have any contract with a practicing pediatrician to make

periodic visits and thus were out of compliance with NCCS standards. It was observed that a handful of ECECs allowed sick children in the center, but all ECECs followed the standard of notifying parents in case symptoms of sickness were noticed during the school day, and basic medications were given to the child. All ECECs were aware that in the event of a serious illness or injury to a child, the staff is mandated to apply first-aid treatment, and based on the severity of the case, emergency services were to be called or a staff member accompanies the child to the nearest hospital, notifying the parents. However, not all ECECs maintained detailed documentation of such events.

We noticed that most ECECs were hesitant to admit children with special needs, although all ECEC managers reported that special arrangements and conditions of admission were agreed upon with parents of special needs children, and that staff cooperated with parents and other specialists overseeing the children's follow-up on their progress, exchanging information about the optimal course of action to achieve the best possible results. Multiple interviews raised concerns about undiagnosed SEN children as well as the treatment of these children by uninformed parents. There were several requests by teachers for further information and contacts for local institutions that might provide further support to struggling parents.

5. Discussion

The mixed-methods design has served the objectives of the study and provided rich insight into challenges and opportunities of Ras Al Khaimah-based ECECs managers on various levels such as policy, programmatic, and operational practice, which could have been missed if it was a pure qualitative or quantitative study. It is also worth noting that this research study only covered privately owned ECECs and publicly funded ECECs were beyond the scope of the research. The quality of publicly funded ECECs may be different than privately funded ones. Structural quality indicators like staff to child ratios, teacher's qualifications, staff wages, stability and continuity of teachers and teaching assistants in classrooms, working conditions in ECECs, and process quality indicators such as teacher–child relationships, quality of feedback, facilitation of learning and development, and language modeling have been noted as areas of needed improvement in Ras Al Khaimah ECECs. This section succinctly provides an overview of salient overarching documented and pressing challenges that Ras Al Khaimah ECECs were facing at the time of the interview. It also briefly discusses the implications of these challenges and potential intervention ideas to address general deficiencies in the system, which can improve the overall quality of ECE provisions in the emirate.

5.1. High cost of ECEC operations

The operational cost of a high-quality ECEC was reported high. Hiring qualified and experienced teachers, teaching assistants, and other support staff, as well as teaching and learning resources, were said to be expensive without any substantial government subsidies and financial support. Young children may have missed out on opportunities for their overall holistic development because of compromised ECEC provisions due to the private and for-profit model. However, high-quality ECECs had a clear understanding of the positive consequences of maintaining high structural and process quality such as increased children's enrolment, continuous capacity utilization of ECEC, and thereby increasing the size of their profit.

5.2. Inadequate government support

The majority of ECECs were private entities, and owners/managers did understand the scope and areas of improvement needed in their centers. However, they reported inadequate available support levels and structures from local and federal governments. The Ras Al Khaimah-based ECECs identified challenges where they could get government support, such as keeping up with changing ECE policies, frameworks, and standards, inconsistent dissemination of frequent changes in ECE inspection parameters, and as a consequence difficulty in adhering to changing ECE governance in the UAE. ECEC managers reported the need to visit the MOE office in Dubai for clarification and to collect accurate information face to face from education officers, which often necessitated numerous visits with inconsistent or partial results. Human and financial investments by all ECE stakeholders need more commitment, which could lead to a mobilization of resources and efforts to improve this underserved education sector uniformly in all seven emirates of the UAE.

5.3. Teachers' recruitment, qualifications, and professional training opportunities

There have been issues concerning the recruitment and retention of trained educators and professionals in the ECE sector. Our data suggest that the percentage of teachers with a specialized qualification, such as an associate or bachelor's degree in Education, or ECE teaching in ECECs is low. Emirati ECE graduates prefer to work in public kindergartens teaching four to six years old, as the remuneration is much higher in public kindergartens than in private ECECs. Qualified expatriate teachers are hired by

private international nurseries located in bigger emirates like Abu Dhabi, Sharjah, and Dubai with higher packages as compared to a smaller emirate such as Ras Al Khaimah.

Ras Al Khaimah-based ECE staff and teachers had at least one in-house preservice training in ECE, or a level 4 and above certification in ECE offered by private institutions based in Dubai and Abu Dhabi, or in their country of origin. The ongoing professional development training and upskilling opportunities for mainly expatriate teachers and staff were scarce in Ras Al Khaimah. They were also usually inaccessible due to a lack of funding and unaffordable high costs of professional certifications and qualifications. A few opportunities exist in other emirates, however, most expatriate teachers in Ras Al Khaimah did not have the financial capacity to enroll or commute, and there were concerns around the language of instruction as well.

The lack of continuous professional development and training opportunities could have negatively impacted teachers' ability to keep up with the best practices and pedagogical advancements in ECE. The status of professional training opportunities in Ras Al Khaimah has had grave implications for not only the quality provisions, but for also the professionalization of the teaching profession, and had severe impacts on young children's care, learning, and optimal development expected at their age.

5.4. Parental expectations from ECEC

In Ras Al Khaimah, unrealistic parental expectations, and irrational demands of ECE also hurt the quality of provision. ECECs tend to meet and prioritize parents' needs and expectations, even as some of them were over and above children's developmental levels. One common observation was that parents demanded teachers to focus on writing activities in the classroom overplay and wide-ranging, recommended, developmentally appropriate activities, even for very young children. Parents had a limited understanding of the true value of a quality early years education and what this entails.

At times, parents' focus seemed to be on finding a low-cost ECEC that offered merely daycare facilities. Parents enrolled their children mainly to develop learning routines and structuralize behavior modifications for formal education. In addition, several infants and young children in Ras Al Khaimah spent a substantial amount of time with maids at home and were at an increased risk of difficulty in adjusting to the ECEC environment, displaying common speech delays, anti-social and disrespectful behavior, and complex attachment issues with their maid. The parents of special needs children also expected improvements in social interactions and skill development, increasing their child's school readiness with an assumption that their child would outgrow these development delays

by themselves with interventions at ECECs, which is neither realistic nor feasible as these conditions require specialized interventions and therapies.

The growing number of working mothers (Emiratis and expatriates) suggest an increasing demand for quality ECECs for children aged 45 days to 4 years of age, and afterschool care for children above 4 years in the country. Since many working mothers seek a low-cost, full-day care option, they were forced to enroll their children in low-quality ECECs which was mainly driven by the income of daycare rather than motivation to provide a high-quality care and learning environment to children for the entirety of the day.

6. Policy Recommendations

While evaluating private ECECs' provisions in Ras Al Khaimah, both structural and process quality variables were examined using the two most widely used cross-nationally in the ECE sector, as well as a questionnaire and checklist based on the local NCCS standards. All Ras Al Khaimah ECECs were mapped, showing a clustering in certain affluent areas, and were rated for quality. This analysis noted numerous overarching challenges that ECE and ECECs in Ras Al Khaimah faced. It also highlighted the need for numerous systematic, organizational, structural, and process reforms at all levels of governance and society. To address existing gaps in quality ECE provision and care, 10 policies are recommended and discussed below.

6.1. Build a federal child development policy

The establishment of an integrated federal child development policy covering early childhood care and education, nutrition, primary healthcare, immunization, health check-ups, and ensuring universal availability of high-quality ECE and care for all children, birth through age eight could create a strong foundation for quality ECE provisions in the country. Under the policy, a complimentary federal- and emirate-level ECE strategy must be clearly defined with supporting standardizations, streamlined regulatory approaches, dissemination strategy targeting families, and a national ECE framework.

6.2. Ensure an increase in public and private expenditures

Setting up high minimum standards for ECE at the federal level must be a top-priority investment. Structural indicators of ECE settings must be regulated consistently at

both Federal and emirate levels to ensure high structural quality and its improved effects on process quality, which should also be assessed periodically. We recommend subsidies to be offered by the local government to private ECECs, proportionally to their performance, every year. Subsidies must also be provided to ECECs to purchase diverse stimulation, learning, and literacy resources.

6.3. Raise the number and scope of federal–emirate partnership

We envision the establishment of federal–emirate partnerships that facilitate collaboration on achieving and continuously supporting high-quality early learning environments in ECECs across the emirates. This can be done by funding emirates' professional development systems and activities, as well as by providing scholarship opportunities and subsidies to an ECEC that is committed to providing quality early childhood care and education.

6.4. Setting up emirate-based ECE regulatory body to monitor ECE

To have uniform high-quality ECE provisions in each emirate, it is highly recommended to have an Early Childhood Education Department (ECED) with a mandate to oversee ECECs' performance, surveillance, support systems, information dissemination, and data collection of vital statistics related to ECED. Under the ECED, setting up an expert committee to investigate cases related to child abuse and establishing a hotline phone number to report such cases can be very effective in ensuring children's safe childhoods.

6.5. Increase the availability of open data access related to ECECs

ECECs' related open data, such as child profiles, assessment outcomes, achievement of milestones, nursery profiles, teacher qualifications, and structural and classroom quality scores, can be helpful for parents, the ECE community, researchers, and educators. High-quality early learning for all children can only be ensured by connecting professional teaching practice with policy and research. The progress toward the goal of improved quality in ECEC must be measured and monitored at fixed intervals to ensure quality ECECs sustainability and such open data should inform evidence-based policy revisions, effective advocacy, and public accountability. More research studies are recommended to be mandated in each emirate to assess the current quality of ECECs, intervention

studies to improve the quality of ECECS and its impact, and lastly to assess the outcome on young children's learning and development.

6.6. Create programs that integrate care with formal ECE

A drive to support and encourage nongovernment organizations and social entrepreneurs to initiate local centers for teacher's preparation – such as Center for Inspired Teaching; after-school activity centers such as Playeum Children's Center for Creativity; childcare and education programs such as Sesame Street Preschools or the Madrasa Pre-school program – and improve parenting skills by educating the masses about child development is recommended.

6.7. Encourage the Establishment of diverse forms of early child-care provisions in communities

It is recommended that both federal and local governments encourage the set-up of different types of early childhood care facilities under the Federal Child Development strategy. Other early care and education provisions could be nursery, daycare centers, family daycare homes, parent support groups for stay-at-home mothers, playgroups, family centers, drop-in services for very young children, and after-school care for children aged four to eight years.

6.8. Build a stronger early education workforce

There is a need to have a federal policy on qualifications for teachers and staff working in public and private ECECs, which can be developed based on policies adopted by other, high-performing countries with the highest quality care for children in their early years. Federal and Emirates-based grant and scholarship opportunities must be created for teachers to upskill their qualifications at a Professional Training Program, bachelor's or master's degree level, focusing on child development, ECE, or other ECE-related fields. In addition, the Emirates National Qualification Framework (NQF) should include guidelines for ECE. Federal and emirate-based universities should be encouraged to offer ECE or child development programs to graduate effective and skilled ECE teachers.

6.9. Establishment of national accreditation authority

Federal and local ECE strategies must adopt related accreditation standards to ensure quality ECECs in the country. With the development of ECEC quality ratings, it can be ensured that children throughout UAE have access to high-quality ECE, and government subsidies to ECECs/nurseries could be based on quality ratings. Poor-quality ECECs must not be allowed to operate, as they can put children at risk of developmental delays and can be harmful to their safety and well-being. The rating system should be transparent and must provide families with open access to information about aspects of ECEC's quality. It is also necessary to raise profiles of the ECE Sector in the UAE to attract more qualified graduates to build a stronger, highly motivated, and well-paid workforce. Government support for external training opportunities will raise awareness of recent advancements in ECE amongst teachers. Upskilling will prepare teachers to plan developmentally appropriate learning experiences that promote social–emotional, physical, cognitive development, health, and general competencies of each child served; establish and maintain a safe, caring, inclusive, and healthy learning environment; observe, document, and assess children's learning and development using guidelines established by ECE frameworks; and develop strategies for special educational need children and engage in reflective practice.

6.10. Design ECE curriculum to cover 0-4 year age group

The curriculum is a key determinant of high-quality ECE. Over the past few decades, there has been increasing evidence that formal and more traditional educational approaches are not well-suited to young children. Developmentally appropriate ECE curriculum giving equal precedence to both cognitive and social development would lead to high-quality ECE and improved social behaviors (Sylva et al., 2010). Additional focus should be placed on early numeracy, literacy, play, and information technology. To maximize learning, development, and social outcomes, there should be a scope in ECE curricula to incorporate child-initiated content and activities.

7. Conclusion

The focus of the paper was to examine the process and structural quality of 39 privately owned ECECs based in Ras Al Khaimah, UAE. Based on the findings of the study, it was identified that there is a considerable level of variability in the ECERS-R and

CLASS quality ratings. It also helped us to note which process and structural quality areas lead to lower quality of ECECs in this emirate. Ratings were discussed with the owner/manager of each ECEC. Both strengths and gaps were discussed and best practices were disseminated. It was observed that owners/managers of nurseries with an already higher quality were more engaged and interested in further improving the quality of care and education given to young children.

Considering these research findings, several policy recommendations to improve and support the ECE sector in the emirate are suggested in this paper. These recommendations can also inform all stakeholders to pay close attention to improving the quality of care and education of young children and highlights the importance of ECECs in providing a strong foundation in young children's growth, development, and learning.

In addition to the current study, we recommend similar studies must be replicated across different emirates to evaluate the quality of ECECs so that the overall quality of ECECs in the country can be assessed. Along with this, future research can also be directed toward understanding the perception that parents have about these institutions, how their role can be enhanced in providing support to children at home and what further resources would the government have to develop to enhance the quality of ECE. The empirical evidence and systematic review are essential to identify areas of improvement and eliminate the factors that cause challenges in ECECs across the country. Moreover, it is recommended to study the relationship between ECEC quality and growth, development, and learning of young children in the country.

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Competing Interests

None declared.

Author Biography

Dr. Priti Verma is an Associate Executive Dean and Assistant Professor, teaching at the Higher Colleges of Technology (Sharjah Women's College) in the Bachelor of Education Early Childhood program. Her work focuses on assessing and improving the quality of Early Childhood Education and Care provisions in Ras Al Khaimah and the greater United Arab Emirates. She is interested in studying the impact of quality early childhood education on the holistic development of young children. She is the Principal Investigator of this research study.

Ms. Kirsty Hearn has an MA in Migration, Superdiversity, and Policy and an MA in Social Research from the University of Birmingham, UK. She is currently in receipt of an ESRC DTP Ph.D. Studentship with research focuses on the global governance of migration and humanitarian policy in the Department of Social Policy, at the University of Birmingham. Kirsty was involved as a research assistant during the Early Childhood Education and Care research study and has a long-running research interest in early years educational provision within the MENA region and for children with migrant and refugee backgrounds.

Ms. Reham Zahran is the Community and Customer Experience Manager at RAK Academy, with 26 years of experience as an Educator with a focus on early year and primary education for different curricula with a master's degree in education leadership. She is a versatile, bilingual, and inventive educator who is committed to lifelong learning and education, interested in offering a consistent, culturally sensitive, and tailored education to students in different countries, both in classroom and community settings. Reham assisted with research during the Early Childhood Education and Care study and has a long-standing interest in early childhood education provision in the MENA region.

Ms. Aisha Alowais is a graduate from the Higher Colleges of Technology (Sharjah Women's College) with a bachelor's degree in Primary Education. She is currently working as a Research Assistant with Dr. Priti Verma and as school inspector with the Sharjah Private Education Authority and has always been intrigued by the field of Early Childhood Education. She has contributed to the Early Childhood Education and

Care research study through the writing of the literature review, manuscript preparation, and formatting.

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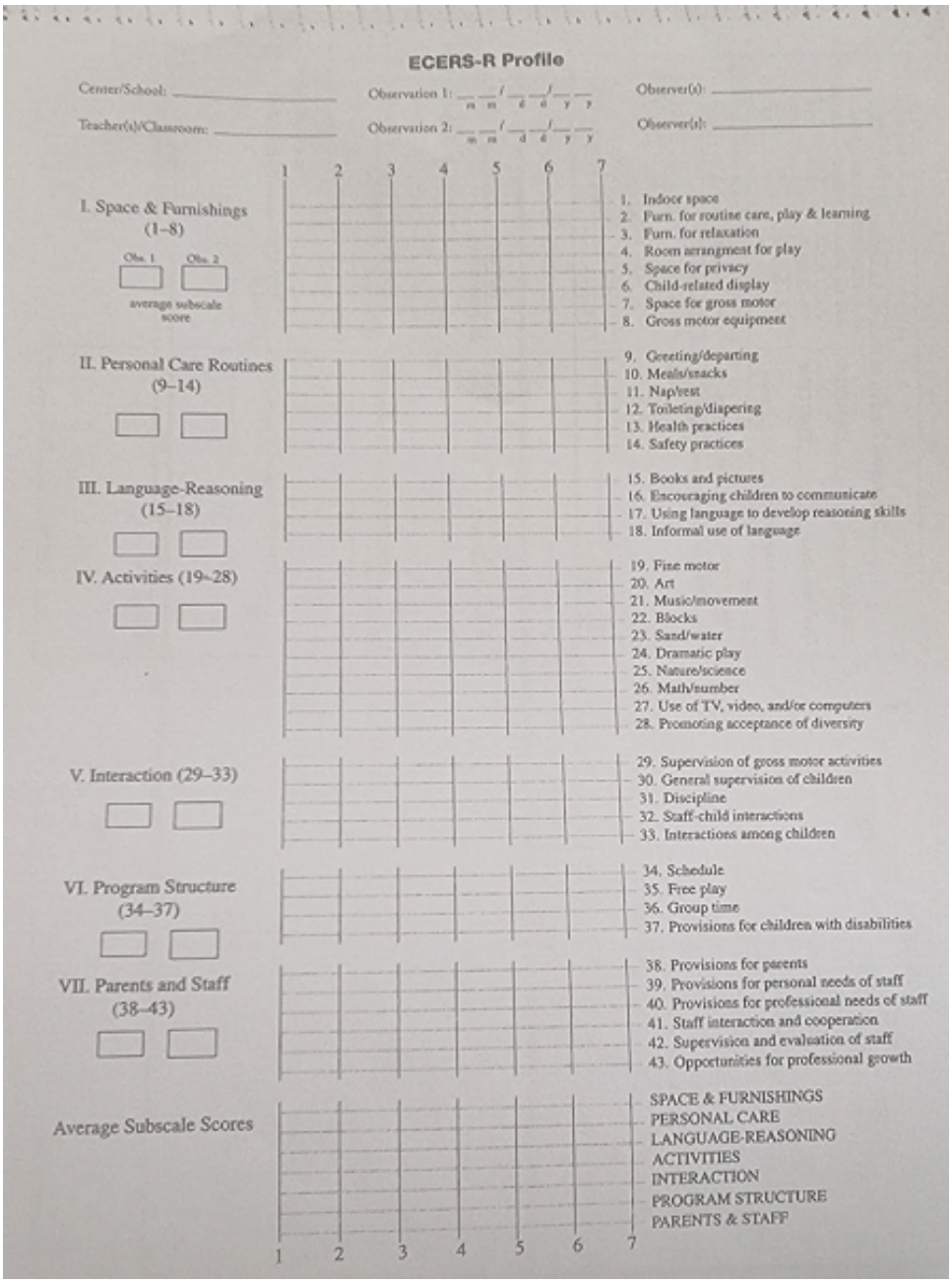
Appendix 1

ECERS-R Profile Sheet



ECERS-R Profile

Center/School: _____ Observation 1: __ __/__ __/__ __ Observer(s): _____

Teacher(s)/Classroom: _____ Observation 2: __ __/__ __/__ __ Observer(s): _____

1 2 3 4 5 6 7

I. Space & Furnishings (1–8)
Obs. 1 Obs. 2
average subscale score
1. Indoor space
2. Furn. for routine care, play & learning
3. Furn. for relaxation
4. Room arrangment for play
5. Space for privacy
6. Child-related display
7. Space for gross motor
8. Gross motor equipment

II. Personal Care Routines (9–14)
9. Greeting/departing
10. Meals/snacks
11. Nap/rest
12. Toileting/diapering
13. Health practices
14. Safety practices

III. Language-Reasoning (15–18)
15. Books and pictures
16. Encouraging children to communicate
17. Using language to develop reasoning skills
18. Informal use of language

IV. Activities (19–28)
19. Fine motor
20. Art
21. Music/movement
22. Blocks
23. Sand/water
24. Dramatic play
25. Nature/science
26. Math/number
27. Use of TV, video, and/or computers
28. Promoting acceptance of diversity

V. Interaction (29–33)
29. Supervision of gross motor activities
30. General supervision of children
31. Discipline
32. Staff-child interactions
33. Interactions among children

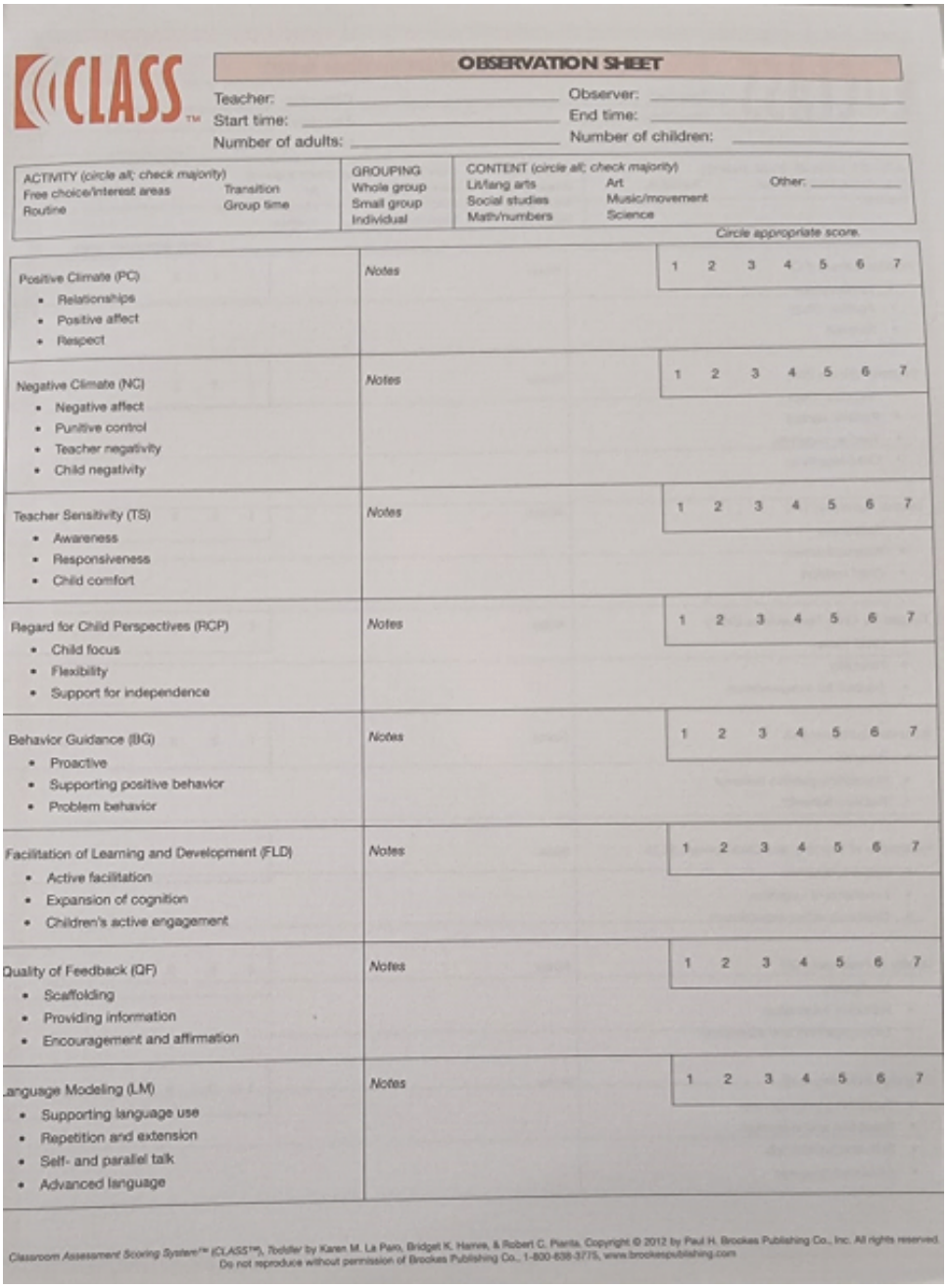
VI. Program Structure (34–37)
34. Schedule
35. Free play
36. Group time
37. Provisions for children with disabilities

VII. Parents and Staff (38–43)
38. Provisions for parents
39. Provisions for personal needs of staff
40. Provisions for professional needs of staff
41. Staff interaction and cooperation
42. Supervision and evaluation of staff
43. Opportunities for professional growth

Average Subscale Scores
SPACE & FURNISHINGS
PERSONAL CARE
LANGUAGE-REASONING
ACTIVITIES
INTERACTION
PROGRAM STRUCTURE
PARENTS & STAFF
1 2 3 4 5 6 7

Appendix 2

CLASS Observation and Scoring Summary Sheets



CLASS™

OBSERVATION SHEET

Teacher: _____ Observer: _____

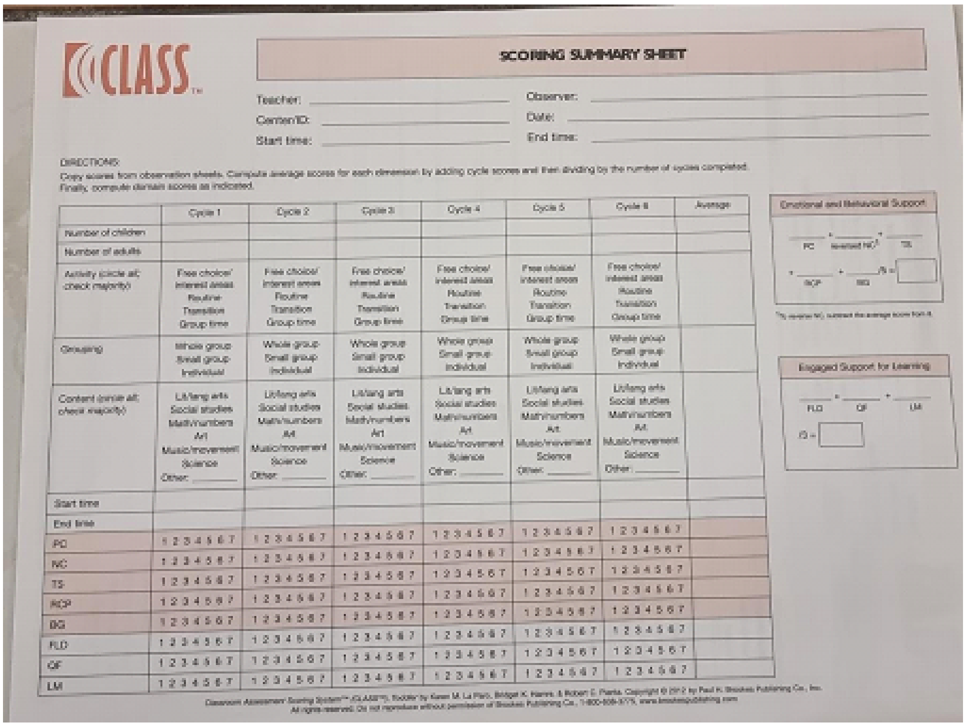
Start time: _____ End time: _____

Number of adults: _____ Number of children: _____

ACTIVITY (*circle all; check majority*)	GROUPING	CONTENT (*circle all; check majority*)
Free choice/interest areas — Transition	Whole group	Lit/lang arts — Art — Other: _____
Routine — Group time	Small group	Social studies — Music/movement
	Individual	Math/numbers — Science

Circle appropriate score.

Positive Climate (PC) • Relationships • Positive affect • Respect	*Notes*	1 2 3 4 5 6 7
Negative Climate (NC) • Negative affect • Punitive control • Teacher negativity • Child negativity	*Notes*	1 2 3 4 5 6 7
Teacher Sensitivity (TS) • Awareness • Responsiveness • Child comfort	*Notes*	1 2 3 4 5 6 7
Regard for Child Perspectives (RCP) • Child focus • Flexibility • Support for independence	*Notes*	1 2 3 4 5 6 7
Behavior Guidance (BG) • Proactive • Supporting positive behavior • Problem behavior	*Notes*	1 2 3 4 5 6 7
Facilitation of Learning and Development (FLD) • Active facilitation • Expansion of cognition • Children's active engagement	*Notes*	1 2 3 4 5 6 7
Quality of Feedback (QF) • Scaffolding • Providing information • Encouragement and affirmation	*Notes*	1 2 3 4 5 6 7
Language Modeling (LM) • Supporting language use • Repetition and extension • Self- and parallel talk • Advanced language	*Notes*	1 2 3 4 5 6 7



CLASS™

SCORING SUMMARY SHEET

Teacher: ____________ Observer: ____________
Center/ID: ____________ Date: ____________
Start time: ____________ End time: ____________

DIRECTIONS:
Copy scores from observation sheets. Compute average score for each dimension by adding cycle scores and then dividing by the number of cycles completed. Finally, compute domain scores as indicated.

	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 6	Average
Number of children							
Number of adults							
Activity (circle all; check majority)	Free choice/ interest areas Routine Transition Group time	Free choice/ interest areas Routine Transition Group time	Free choice/ interest areas Routine Transition Group time	Free choice/ interest areas Routine Transition Group time	Free choice/ interest areas Routine Transition Group time	Free choice/ interest areas Routine Transition Group time	
Grouping	Whole group Small group Individual	Whole group Small group Individual	Whole group Small group Individual	Whole group Small group Individual	Whole group Small group Individual	Whole group Small group Individual	
Content (circle all; check majority)	Lit/lang arts Social studies Math/numbers Art Music/movement Science Other: ____	Lit/lang arts Social studies Math/numbers Art Music/movement Science Other: ____	Lit/lang arts Social studies Math/numbers Art Music/movement Science Other: ____	Lit/lang arts Social studies Math/numbers Art Music/movement Science Other: ____	Lit/lang arts Social studies Math/numbers Art Music/movement Science Other: ____	Lit/lang arts Social studies Math/numbers Art Music/movement Science Other: ____	
Start time							
End time							
PC	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	
NC	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	
TS	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	
RCP	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	
BG	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	
FLD	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	
QF	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	
LM	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

Emotional and Behavioral Support

____ + ____ + ____
PC reversed NC[1] TS
+ ____ + ____ /5 = [ ]
RCP BG

Engaged Support for Learning

____ + ____ + ____
FLD QF LM
/3 = [ ]

Appendix 3

Profile of ECECs in RAK

ECEC	Start Year	Structure	Student Numbers	Adult-Child Ratio	Student Nationality	Management Nationality	Curriculum	Fees/ month (AED)
ECEC A	2008	Stand Alone	175	1:15 + Floating Aides	Mixed (Arabs, Indians)	Indian	Self- Designed	650
ECEC B	2008	Part of School	317	1:8	Mixed	UK	British Curriculum	1,400
ECEC C	2007	Part of School	244	1:8	Mixed	UK	Primary Years Program	1,400
ECEC D	2013	Stand Alone	94	1:12 +Floating Aides	Arabs	Expat Arab	Self- Designed	800
ECEC E	2012	Stand Alone	70	1:11 +Floating Aides	Mixed (Mainly westerners)	UK	Self- designed (Based on Early Years Foundation Stage (EYFS))	950
ECEC F	2013	Stand Alone	90	1:8	Mixed (Mainly Westerners)	British	EYFS	1,700
ECEC G	2015	Stand Alone	N/A	1:4 (0-2 yrs.) 1:8 (2-3 yrs.) 1:10 (3-4 yrs.)	Mixed (Indians, Arabs, Westerners)	Indian	Self- Designed (Focus on Multiple Intelligences)	1,000-1,650
ECEC H	2015	Part of school	102 (KG section)	3:24	Mixed (Arabs, Westerners)	American	American	2,000
ECEC I	N/A	Stand Alone	N/A	N/A	Arabs	Expat Arab	Self- Designed	N/A
ECEC J	2011	Stand Alone	22	1:4 (0-2 yrs.) 1:8 (2-4 yrs.)	Arabs (Mainly Emirati)	Emirati	Self- Designed	800
ECEC K	2015	Stand Alone	27	1:4 (0-2 yrs.) 1:2 (2-4 yrs.)	Mixed (Indians, Arabs)	Indian	Self- Designed	750
ECEC L	2016	Stand Alone	14	1:3 (0-2 yrs.) 1:4 (2-4 yrs.)	Mixed (Indians, Arabs)	Indian	EYFS	890
ECEC M	2012	Stand Alone	63	1:5 (0-2 yrs.) 1:10 (2-4 yrs.)	Arabs (Mainly Emirati)	Emirati	Self- Designed (Montessori/ UAE curriculum)	1,000-1,250
ECEC N	2016	Stand Alone	25	1:6 (0-2yrs) 1:8 (2-4 yrs.)	Mixed (Mainly Germans)	German	German	1,250
ECEC O	2009	Stand Alone	70	1:5 (0-2 yrs.) 1:8 (2-4 yrs.)	Mixed (Arabs, Indians)	Indian	Self- Designed (EYFS- British, American, Indian)	750
ECEC P	2012	Stand Alone	120	12:1 (3-4yrs)	Arabs	Egyptian	Self- designed (British curriculum)	700-800
ECEC Q	2016	Stand Alone	28	6:2 (0-2 yrs.) 15:1 (2-4 yrs.) + Floating Aide	Arabs (Mainly Emirati)	Emirati	Self- Designed	1,000 - 1,400
ECEC R	2013	Stand Alone	60	10:1 + Floating Aide	Arabs	Jordanian	Self- Designed (Montessori)	1,500
ECEC S	2010	Stand Alone	53	12:1 (0-1 yrs.) 24:2 (1-3 yrs.) 20:1 (3-4 yrs.)	Arabs	Syrian	EYFS	1,500

ECEC	Start Year	Structure	Student Numbers	Adult-Child Ratio	Student Nationality	Management Nationality	Curriculum	Fees/ month (AED)
ECEC T	2013	Stand Alone	35	5:2 (0-2 yrs.) 7:2 (2-3 yrs.) 10:1 (3-4 yrs.)	Arabs	Tunisian	Self- Designed (Montessori and British Curriculum)	900-100
ECEC U	2016	Stand Alone	18	8:2(floating aid)	Mixed	Indian	Self- Designed	700-800
ECEC V	2014	Stand Alone	40	13:2	Mixed	Emirati	British	700
ECECW	2011	Stand Alone	100	14:2	Mixed	Emirati	British	700
ECEC X	2015	Stand Alone	35	7:1	Mixed	Jordanian	American	1,100
ECEC Y	2006	Stand Alone	161	8:1	Mixed	Syrian	British	2,100
ECEC Z	2009	Stand Alone	50	20:1	Mixed	Egyptian	British	600-650
ECEC A1	2016	Stand Alone	175	8:1	Mixed	South African	Self -Designed	1,500-2,000
ECEC B1	2014	Stand Alone	80	12:1	Mixed	Jordanian	Self- Designed (American)	1,200
ECEC C1	2012	Stand Alone	35	19:1	Mixed	Egyptian	British	850
ECEC D1	2011	Stand Alone	90	25:2	Mixed (mostly Emirati)	Emirati	Self- Designed	800
ECEC E1	2007	Stand Alone	55	14:1	Mixed	Syrian	Self- Designed (Montessori)	1,000
ECEC F1	2015	Stand Alone	25	10:1	Mixed (mostly Emirati)	Egyptian	Self- Designed	700
ECEC G1	1994	Part of School	116	25:1	Mixed	Emirati	British	840
ECEC H1	2017	Part of School	70	11:1	Mixed (mostly Emirati)	Jordanian	Self-Designed	1,450
ECEC I1	2007	Part of School	226	30:1	Mixed	Pakistani	American	1,800
ECEC J1	2007	Stand Alone	30	6:1	Emirati	Emirati	Self- Designed	850
ECEC K1	2014	Stand Alone	40	15:1	Emirati	Emirati	Self- Designed	1,500
ECEC L1	2014	Stand Alone	80	8:1	Mixed	British	EYFS	1,400
ECEC M1	2004	Stand Alone	70	15:1	Expat Arabs/Emirati	Egyptian	British	600-1,000
ECEC N1	2007	Stand Alone	23	14:1	Emirati	Emirati	Self- Designed	600
ECEC J1	2007	Stand Alone	30	6:1	Emirati	Emirati	Self- Designed	850
ECEC K1	2014	Stand Alone	40	15:1	Emirati	Emirati	Self -Designed	1,500

Appendix 4

Location of ECECs on Ras Al Khaimah Map