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## Evidence-based strategies to support children's emergent literacy in the Gulf Cooperation Council (GCC) countries

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### ABSTRACT

This study was designed to examine teachers' reported use of evidence-based strategies to support children's emergent literacy in Arab countries of the Gulf Cooperation Council (GCC). The study participants comprised 644 kindergarten teachers from four countries, including Saudi Arabia ( $n = 154$ ), Qatar ( $n = 105$ ), United Arab Emirates (UAE) ( $n = 190$ ), and Oman ( $n = 195$ ). The researchers designed a 29-items questionnaire that addressed five dimensions, examining evidence-based strategies that support emergent literacy: phonological awareness, knowledge and understandings of books and other texts, print awareness, knowledge of letters and words, and early writing. The results showed that teachers reported higher use of strategies concerning knowledge of letters and words, followed by those concerning print awareness. In addition, they reported lower use of strategies concerning early writing. Moreover, teachers in the UAE reported higher use of strategies in support of emergent literacy followed by teachers in Qatar and Oman, whereas teachers in Saudi Arabia reported lower use of evidence-based strategies. Finally, statistically significant differences were found regarding teachers' use of emergent literacy strategies due to teachers' demographic background. Implications for future research are discussed, and they include highlighting evidence-based emergent literacy strategies in early years settings in the GCC countries as well as expanding the scope of the study to include samples from different contexts.

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**KEYWORDS** Emergent literacy; Preschool education; Early learning; Evidence-based strategies; Gulf Cooperation Council countries

The Cooperation Council for the Arab countries of the Gulf, officially known as the Gulf Cooperation Council (GCC), comprises six Arab countries in the

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region: Oman, Qatar, Saudi Arabia, Bahrain, Kuwait, and the United Arab Emirates (UAE). Recently, most GCC countries have paid increasing attention to improving early years education by developing early childhood curricula, setting nationally endorsed learning standards, and enhancing literacy teaching practices. Nevertheless, Arab children tend to leave primary school early, such that illiteracy rates in most Arab countries remain relatively high (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2011). For instance, Qatari students of school-age are still suffering from poor literacy skills (Middle East Partnership Initiatives, 2012), while new data has emerged from Saudi Arabia, showing a rather low literacy rate among Saudi students at the secondary level (Arabian Business, 2014). Research studies also indicate that children with poor literacy skills in early years find it difficult to learn the skills necessary to successfully read and write in later years (Adams, 1990).

A recent longitudinal study conducted in the UAE revealed that kindergartens provide children (aged 4–4.5 years) with relatively few opportunities to develop their emergent writing skills (Tibi, Joshi, & McLeod, 2013). Furthermore, based on observations by the first and second authors in some Omani kindergartens, teaching literacy to kindergarten-aged children is implemented in much the same way as if the children were in the primary schools, with a great deal of emphasis on academic skills without taking into consideration the children's developmental needs.

The components of emergent literacy have been incorporated in most early childhood curricula across GCC countries. In 2013, an ambitious initiative entitled *Educational Development Program in Kindergarten* was launched in Saudi Arabia. The program's aim was to determine the best curricula based on modern theories and practices in early childhood education, including developmentally appropriate literacy practices (Tatweer Company for Academic Services, 2012). Moreover, a recent study conducted in the Qatari educational context revealed that the main literacy components (phonological awareness, concepts of print etc.) were strongly reflected in Qatari *Curriculum for Early Years* (Al-Medadi, & Ihmeideh, 2014). Despite this enhancement, little is known about what is going on in these countries regarding literacy strategies used by teachers in the GCC countries because of a lack of current research on this important area of investigation. Therefore, this study—being the first of its kind in the GCC countries—will fill the gap and will try to examine teachers' reported use of evidence-based strategies to support children's emergent literacy in the GCC countries. It will determine whether there are significant differences among these countries concerning the development of children's emergent literacy and the demographic backgrounds of teachers.

## Theoretical underpinning

Emergent literacy refers to the skills, knowledge and attitudes that young children have relating to reading and writing before they begin formal literacy

instruction (Teale & Sulzby, 1986). Emergent literacy skills are acquired in a continual learning process that occurs from birth until the child can read and write in a conventional way (Sulzby & Teale, 1991). An extensive body of research has shown that children in preschool years need to acquire certain emergent literacy skills to develop their reading and writing abilities (Al-Qaryouti, & Kilani, 2015; Lonigan, Burgess, & Anthony, 2000; Niessen, Strattman, & Scudder, 2011). Such skills include oral development and language, phonological awareness, concepts of print, alphabet knowledge, and emergent writing (Anthony et al., 2002).

Children's literacy success through primary school can be predicted from these emergent literacy skills (Lonigan, Schatschneider, & Westburg, 2008; Owodally, 2015). Research studies (e.g., Anthony et al., 2002; Lonigan et al., 2000) have emphasized the predictive value of these skills for the subsequent emergent literacy abilities of young children. Peeters, Moor, and Verhoeven (2011) pointed out that children who lag behind in emergent literacy abilities have often a hard time acquiring literacy skills.

Within the set of emergent literacy skills, literature on this area has highlighted five main components associated with the subsequent emergent literacy abilities of kindergarten children, namely print awareness, phonological awareness, knowledge and understanding of books and other texts, knowledge of letters and words, and early writing abilities.

*Phonological awareness* describes children's ability to detect and manipulate the sounds of spoken language, (Lonigan, 2006; Wagner, Torgesen, & Rashotte, 1994). It tackles the awareness of constituent sounds of words in learning to read and spell (Strickland & Schickedanz, 2004). Early literacy studies indicated that skills like rhyming words, phoneme blending, phoneme identification, and phoneme segmentation are considered as vital features of phonological awareness (Torgesen, 2002; Vloedgraven & Verhoeven, 2007). Phonological awareness is strongly related to children's literacy acquisition (Wagner et al., 1994).

*Print knowledge* refers to young children's capabilities to understand how print works. It is also known as print concepts or print knowledge. It includes children's understanding of the forms of print (the difference between letters and words), features/conventions/concepts of print (printed words are separated by spaces; words are written in left-to-right, top-to-bottom sequences) and functions of print (print symbolically represents speech and meaning; print is used for practical or entertainment purposes) (Strickland & Schickedanz, 2004, p. v). Print awareness gives opportunities that help children interact with written language and think about it. Studies have found that print awareness skills positively affect children's literacy development (Christie, 2008; Lonigan et al., 2008).

*Knowledge of letters and words* refers to children's ability to identify letter names and letter sounds as well as familiar words. Knowledge of letters is known as alphabet knowledge and includes children's ability to recognize and name letters as well as examine letter sounds (Levin & Ehri, 2009). It is considered as the strongest predictor of later reading proficiency (Phillips, Piasta, Anthony,

Lonigan, & Francis, 2012; Puranik, Lonigan, & Kim, 2011). Foulin (2005) pointed out that letter names that include the actual sound of the letter could facilitate decoding of emergent readers. It also supports the development of letter–sound relations (Share, 2004).

According to Snow, Burns, and Griffin (1998), children in their very early years begin paying attention to the letters in their own names. Drouin and Harmon (2009) point out that one of the first word that appears in early writing activities—and this happens across cultures and across socio-economic classes—is a child’s first name; although it is argued that children initially learn to write their names as logograms, this experience is often the start of their developing knowledge about the alphabet (Puranik et al., 2011, p. 471).

*Knowledge and understandings of books and other texts* refer to young children’s ability to comprehend the structure of books and their features. Children who are exposed to books and other texts have a wealth of information about the function of written language (Rog, 2001). Books and other texts increase children’s questions, comments and responses to literature (Morrow, 2009). Christie (1987) pointed out that the interest of books allows children to read and write the text appropriately. Young children who learn a lot about books and other texts help children acquire quick knowledge and experiences (Duke & Kays, 1998) and thus promote their emergent literacy skills (Girard, Girolametto, Weitzman, & Greenberg, 2013). Studies have found that reading to children, understanding books and other texts, and integrating and interactive in books to be significantly correlated with children’s literacy skills (Morrow, 2009; Teale & Sulzby, 1986).

*Early writing* refers to early writing attempts made by young children, It was defined by Muzevich (1999, p. 11), as “any marks the child put on paper including drawing, scribbles, strings of letters, shapes or form, as well as messages created with invented spelling or conventional spelling”. Moreover, research studies reported that preschool children’s early writing has been strongly linked with early reading (Puranik et al., 2011). Children’s desire to write is natural (Graves, 1983). Since children move through using natural forms of emergent writing such as scribbling, drawings, letter strings, invented spelling, and conventional writing, they start to notice and recognize print, as well as start writing familiar words (Sulzby, 1992).

The absence of these experiences must be considered to be significant reasons for a child’s subsequent failure in literacy (Adams, 1991). However, while research indicated the importance of the early childhood stage for children’s literacy development, doubt and disillusionment are widespread among kindergarten teachers regarding how literacy is developed and their role in how to promote it.

The degree to which emergent literacy is supported in kindergartens is depending on teachers’ perspectives, beliefs or attitudes towards its value and appropriate place (Ihmeideh, Al-Basheer, & Al-Momani, 2008; Foote, Smith, &

Ellis, 2004). A number of researchers (e.g., Cunningham, Zibulsky, & Callahan, 2009; Mather, Bos, & Babur, 2001) pointed out that early childhood teachers may not promote children's emergent literacy skills because of lack of their knowledge and expertise. Hsiac (2003) pointed out that teachers who have knowledge of child development are able to make the correct decisions about appropriate goals, procedures and instruction materials. Educational literature showed that teachers' beliefs in early literacy learning does not only impact their pedagogical knowledge and skills in teaching but also forms young children's perspective of the nature of reading and writing (Fang, 1996). Therefore, this study was designed to determine teachers' reported use of strategies to support emergent literacy in the GCC countries and whether a significant disparity exists according to their country as well as their demographic background. The main research questions considered in this current study are:

- (1) What is teachers' reported use of evidence-based strategies to support emergent literacy in the GCC countries?
- (2) Are there statistically significant differences in teachers' reported use of evidence-based strategies to support emergent literacy based on differences in the country?
- (3) How does teachers' reported use of evidence-based strategies to support emergent literacy differ in terms of years of teaching experiences, academic qualifications, specialization, and preschool level?

## Method

### Participants

The participants in this study were kindergarten teachers who work in four GCC countries; Saudi Arabia, Qatar, UAE, and Oman. Kindergarten teachers were drawn from Jeddah, Saudi Arabia ( $n = 154$ ); Doha, Qatar ( $n = 105$ ), Abu Dhabi, UAE ( $n = 190$ ); and Muscat, Oman ( $n = 195$ ). Kindergarten teachers from 4 cities in 4 countries ( $n = 644$ ) chosen for inclusion in this study differed by academic qualification, years of teaching experiences, specialization, and preschool level. Teachers involved in this study teach kindergarten children in two preschool levels: level one (children aged 4–5), and level two (children aged 5–6). The sample distribution is shown in Table 1.

### Instrumentation

The instrument used to collect data in this present study was a survey questionnaire named Evidence-Based Emergent Literacy Strategies (EBELS). It was developed by the researchers after a thorough review of the emergent literacy-related literature. The EBELS scale was developed in an Arabian context. It

**Table 1.** The distribution of the sample by the study variables.

Variable	Country									
	Oman (N = 195)		Qatar (N = 105)		Saudi Arabia (N = 154)		UAE (N = 190)		Total (N = 644)	
	N	%	N	%	N	%	N	%	N	%
<i>Years of teaching experience</i>										
Five years and below	132	67.7	56	53.3	98	63.6	90	47.4	376	58.4
Six to ten years	38	18.5	28	26.7	44	28.6	39	20.5	149	23.1
More than ten years	25	12.8	21	20.0	12	7.8	61	32.1	119	18.5
<i>Qualification</i>										
High School	116	59.5	71	67.6	10	6.5	7	3.7	204	31.7
Diploma's degree	22	11.3	11	10.5	18	11.7	61	32.1	112	17.4
Bachelor's degree	57	29.2	23	21.9	126	81.8	122	64.2	328	50.9
<i>Specialization</i>										
Early Childhood majors	67	34.4	56	53.3	40	26.0	23	12.1	184	28.6
General Education majors	100	51.2	38	36.2	61	39.6	147	77.4	406	63.0
Non-Education majors	28	14.4	11	10.5	53	34.4	20	10.5	54	8.4
<i>Preschool level</i>										
Level one	109	55.9	54	51.4	66	42.9	90	47.4	291	45.2
Level two	86	44.1	51	48.6	88	57.1	100	52.6	353	54.8

addressed five emergent literacy dimensions: 1) print awareness which consists of six items such as 'displaying children's writing around the room', and 'pointing to print while reading aloud to show children that text in books begins from top to bottom', 2) phonological awareness which consists of five items such as 'reading to children stories which include rhymes', and 'encouraging children to identify initial sounds in words', 3) knowledge and understanding of books and other texts which consists of six items such as 'reading to children their favorite stories', and 'encouraging children to predict stories', 4) knowledge of letters and words which consists of six items such as 'playing games that teach children letter/word recognition', and 'providing children with alphabetic letters', 5) early writing abilities which consists of six items such as 'encouraging children to practice writing their names', and 'displaying children's written attempts in the classroom'.

To ensure the validity of the EBELS scale, it was sent to a panel of 10 judges specializing in early childhood education at four Gulf universities. The validation panel of judges revealed that the EBELS scale has both content and face validity. To assess the reliability of the questionnaire, an internal consistency coefficient for the EBELS scale was calculated using Cronbach's alpha method for each dimension and for the total score. A reliability analysis of each of the five domains and the total ranged from .944 to .982 and this was satisfactory for the purpose of the study. The EBELS scale was then field-tested with 10 teachers in each country, and changes from the sample were combined in the final draft.

### Data collection

The data collection took place during the second semester of the 2012/2013 scholastic year and the first semester of the 2013/2014 scholastic year in the four

GCC countries. After approval for the collection of data was obtained from the Ministry of Education and Supreme Education Council in these countries as well as from teachers themselves. Each researcher met the participants and explained to them the purpose of the study and ensured confidentiality and anonymity for them. The EBELS scale was distributed and collected by the researchers in each country.

### Data analysis

Descriptive analysis was used to answer questions 1 with means, and standard deviation, while independent *t*-test and one-way analysis of variance (ANOVA) were used to answer questions 2 and 3 concerning the significance differences in teachers' reported use of strategies to support emergent literacy according to their country, qualifications, years of teaching experiences, specialization and preschool level.

## Results

### Results pertaining to research question 1

As shown in Table 2, the overall mean score for EBELS scale was 3.57 with a standard deviation of 1.17, indicating moderate use of emergent literacy strategies in the GCC countries. These evidence-based strategies were higher concerning knowledge of letters and words which had the highest mean score 3.64, followed by print awareness which had the second mean score 3.36, and knowledge and understanding of books which had the third mean score 3.34. With regard to teachers' reported use of evidence-based strategies concerning phonological awareness, the data indicated that the mean score on the phonological awareness domain was 2.97 which had the fourth rank, while the mean score on the early writing domain was 2.88 which had the least rank.

**Table 2.** Means, standard deviations of teachers' reported use of evidence-based strategies to support emergent literacy in the Gulf countries.

No	County	Oman		Qatar		Saudi Arabia		UAE		Total	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	Emergent literacy awareness	2.73	.74	3.53	.76	1.65	.54	3.98	.69	2.97	1.12
2	Knowledge and understanding of books	3.27	.85	3.95	.86	2.02	.48	4.15	.60	3.34	1.08
3	Print awareness	3.44	.86	3.76	.91	1.86	.50	4.28	.54	3.36	1.15
4	Knowledge of letters and words	3.88	.58	4.15	.65	2.11	.58	4.37	.58	3.64	1.06
5	Early writing ability	2.38	.58	3.23	.83	1.60	.48	4.25	.68	2.88	1.20
	Total	4.19	.77	3.73	.54	1.85	.40	4.25	.68	3.57	1.17



**Table 3.** Differences among teachers' reported use of evidence-based strategies to support emergent literacy in the Gulf countries.

Domain	Source of variances	Sum of squares	Degree of freedom	Mean square	<i>F</i>	<i>p</i>
Phonological awareness	Between groups	508.022	3	169.341	355.469	.000
	Within groups	304.887	640	.476		
	Total	812.909	643			
Knowledge and understanding of books	Between groups	434.229	3	144.743	285.789	.000
	Within groups	324.140	640	.506		
	Total	758.369	643			
Print awareness	Between groups	526.411	3	175.470	343.098	.000
	Within groups	327.314	640	.511		
	Total	853.726	643			
Knowledge of letters and words	Between groups	503.341	3	167.780	469.580	.000
	Within groups	228.671	640	.357		
	Total	732.012	643			
Early writing ability	Between groups	666.388	3	222.129	540.301	.000
	Within groups	263.118	640	.411		
	Total	929.506	643			
Total	Between groups	622.424	3	207.475	506.363	.000
	Within groups	262.230	640	.410		
	Total	884.654	643			

### Results pertaining to research question 2

As shown in Table 3, results indicated that there were statistically significant differences that are attributed to the country in all the emergent literacy domains and in the overall total as the significant level was .000, and this was significant at  $\alpha < .05$ . To determine which countries were different from the others, the Tukey post-hoc test was administered (see Table 4).

Results of the Tukey comparison test revealed that the differences in the total and fifth emergent literacy skill domains were statistically significant between UAE teachers on the one hand and Oman, Qatar and Saudi Arabia teachers on the other hand in favour of UAE teachers. As well, the differences were statistically significant between Qatari teachers on the one hand and Omani and Saudi Arabian teachers on the other hand in favour of Qatari teachers. Finally, the differences were statistically significant between Omani teachers on the one hand and Saudi Arabia teachers on the other hand in favour of Omani teachers.

### Results pertaining to research question 3

Our third research question is concerned with the significant differences among teachers' reported use of evidence-based strategies to support emergent literacy

**Table 4.** Tukey test for the differences among GCC teachers' reported use of evidence-based strategies to support emergent literacy.

Domain	Country	Oman	Qatar	Saudi Arabia	UAE
Phonological awareness	Oman	–	–.80176*	1.08084*	–1.25304*
	Qatar	.80176*	–	1.88260*	–.45128*
	Saudi Arabia	–1.08084*	–1.88260*	–	–2.33388*
	UAE	1.25304*	.45128*	2.33388*	–
Knowledge and understanding of books	Oman	–	–.68095*	1.25722*	–.87398*
	Qatar	.68095*	–	1.93817*	–.19302
	Saudi Arabia	–1.25722*	–1.93817*	–	–2.13119*
	UAE	.87398*	.19302	2.13119*	–
Print awareness	Oman	–	–.32405*	1.57847*	–.84406*
	Qatar	.32405*	–	1.90253*	–.52001*
	Saudi Arabia	–1.57847*	–1.90253*	–	–2.42253*
	UAE	.84406*	.52001*	2.42253*	–
Knowledge of letters and words	Oman	–	–.27424*	1.77252*	–.49516*
	Qatar	.27424*	–	2.04675*	–.22093*
	Saudi Arabia	–1.77252*	–2.04675*	–	–2.26768*
	UAE	.49516*	.22093*	2.26768*	–
Early writing ability	Oman	–	–.84835*	.78260*	–1.86026*
	Qatar	.84835*	–	1.63095*	–1.01190*
	Saudi Arabia	–.78260*	–1.63095*	–	–2.64286*
	UAE	1.86026*	1.01190*	2.64286*	–
Total	Oman	–	–.46640*	2.34660*	–.05236
	Qatar	.46640*	–	1.88020*	–.51876*
	Saudi Arabia	–2.34660*	–1.88020*	–	–2.39896*
	UAE	.05236	.51876*	2.39896*	–

based on the following individual demographics of kindergarten teachers in GCC countries: (1) years of teaching experiences, (2) qualifications, (3) specialization, and (4) preschool level.

### Years of teaching experience

Results indicated that there were statistically significant differences that are attributed to teachers' years of teaching experience in all the emergent literacy domains and in the total as they were statistically significant at  $\alpha < .05$ . To determine which groups were different from the others, the Tukey post-hoc test was administered. As shown in Table 5, results of the Tukey comparison test revealed that the differences were statistically significant between teachers with long years of teaching experiences on the one hand and teachers with short and moderate years of teaching experiences on the other hand in favour of teachers with long years of teaching experiences.

### Academic qualifications

Results indicated that there were statistically significant differences that are attributed to teachers' academic qualifications in all the emergent literacy domains and in the total as all of the levels were significant at  $\alpha < .05$ . To

**Table 5.** Tukey test for the differences among the three levels of years of teaching experience.

Domain	Years of teaching experience	Below 5 years	5–10 years	More than 10 years
Phonological awareness	Below 5 years	–	–.11363	–.46620*
	5–10 years	.11363	–	–.35257*
	More than 10 years	.46620*	.35257*	–
Knowledge and understanding of books	Below 5 years	–	–.07438	–.42647*
	5–10 years	.07438	–	–.35209*
	More than 10 years	.42647*	.35209*	–
Print awareness	Below 5 years	–	.03963	–.49915*
	5–10 years	–.03963	–	–.53878*
	More than 10 years	.49915*	.53878*	–
Knowledge of letters and words	Below 5 years	–	.05216	–.38208*
	5–10 years	–.05216	–	–.43424*
	More than 10 years	.38208*	.43424*	–
Early writing ability	Below 5 years	–	.02091	–.52101*
	5–10 years	–.02091	–	–.54192*
	More than 10 years	.52101*	.54192*	–
Total	Below 5 years	–	.10072	–.33901*
	5–10 years	–.10072	–	–.43974*
	More than 10 years	.33901*	.43974*	–

determine which groups were different from the others, the Tukey post-hoc test was utilized. As shown in Table 6, results of the Tukey comparison test revealed that the differences were statistically significant between teachers with diploma's degree and high school on the one hand and teachers with bachelor's degree on the other hand in favour of teachers with diploma, followed by teachers with high schools graduate only.

### Specialization

Results indicated that there were statistically significant differences that are attributed to teachers' academic qualifications in all the emergent literacy domains and in the total as the significant level was .000, and this was significant at  $\alpha < .05$ . To determine which groups were different from the others, the Tukey post-hoc test was utilized. As shown in Table 7, results of the Tukey test revealed that the differences were statistically significant between teachers with early childhood-related majors and teachers with general education-related majors on the one hand and teachers with non-education majors on the other

**Table 6.** Tukey test for the differences among the three levels of academic qualifications.

Domain	Qualifications	High School	Diploma's degree	bachelor's degree
Phonological awareness	High school	–	–.58004*	–.10391
	Diploma's degree	.58004*	–	.47613*
	Bachelor's degree	.10391	–.47613*	–
Knowledge and understanding of books	High school	–	–.24530	.12944
	Diploma's degree	.24530	–	.37475*
	Bachelor's degree	–.12944	–.37475*	–
Print awareness	High school	–	–.14747	.39318*
	Diploma's degree	.14747	–	.54065*
	Bachelor's degree	–.39318*	–.54065*	–
Knowledge of letters and words	High school	–	.00586	.37270*
	Diploma's degree	–.00586	–	.36683*
	Bachelor's degree	–.37270*	–.36683*	–
Early writing ability	High school	–	–.52185*	–.20046
	Diploma's degree	.52185*	–	.32139*
	Bachelor's degree	.20046	–.32139*	–
Total	High school	–	.09805	.49782*
	Diploma's degree	–.09805	–	.39977*
	Bachelor's degree	–.49782*	–.39977*	–

hand in favour of teachers with early childhood-related majors and teachers with general education-related majors.

### Preschool level

Kindergarten teachers in this study were divided into two categories according to the preschool level: teachers who teach level one (aged 4–5) and teachers who teach level two (aged 5–6). The independent *t*-test was utilized to examine this part. As shown in Table 8, the results of the *t*-test indicated that there was a statistically significant difference in teachers' reported use of emergent literacy strategies that are attributed to preschool level. These differences were only noticed with regards to early writing ability domain in favour of those who teach in level one. However, the results revealed that there were no significant differences in the total and the rest of the emergent literacy domains that can be attributed to the preschool level.

## Discussion

### Teachers' reported use of evidence-based emergent literacy strategies

Across the entire sample from all four GCC countries, results indicated that teachers reported moderate use of emergent literacy strategies. It is obvious

**Table 7.** Tukey test for the differences among the three levels of specialization.

Domain	Specialization	Early childhood-related majors	General education-related majors	Non education majors
Phonological awareness	Early childhood-related majors	–	–.01759	1.36192*
	General education-related majors	.01759	–	1.37951*
	Non education majors	–1.36192*	–1.37951*	–
Knowledge and understanding of books	Early childhood-related majors	–	–.01088	1.42130*
	General education-related majors	.01088	–	1.43217*
	Non education majors	–1.42130*	–1.43217*	–
Print awareness	Early childhood-related majors	–	–.22090	1.42935*
	General education-related majors	.22090	–	1.65025*
	Non education majors	–1.42935*	–1.65025*	–
Knowledge of letters and words	Early childhood-related majors	–	–.08550	1.71843*
	General education-related majors	.08550	–	1.80393*
	Non education majors	–1.71843*	–1.80393*	–
Early writing ability	Early childhood-related majors	–	–.18123	1.24064*
	General education-related majors	.18123	–	1.42187*
	Non education majors	–1.24064*	–1.42187*	–
Total	Early childhood-related majors	–	–.03432	1.84219*
	General education-related majors	.03432	–	1.87651*
	Non education majors	–1.84219*	–1.87651*	–

**Table 8.** Differences between teachers who teach level one and teachers who teach level two.

Domain	Preschool level	No.	Mean	Std. deviation	<i>t</i>	<i>p</i>
Early writing ability	Level one	291	2.7749	1.16355	–2.207	.028
	Level two	353	2.9844	1.22693		

that teachers are aware of some evidence-based strategies for emergent literacy development and they, to some extent, use them in their classroom. This result is consistent with the work of a number of early literacy researchers (e.g., Fang, 1996; Morrow, 2009; Muzevich, 1999) who indicated that teachers use evidence-based strategies to support children's emergent literacy skills. This result could be due to the fact that early childhood curricula in some GCC countries have witnessed changes and, therefore, emergent literacy components were included in these curricula (Al-Maadadi & Ihmeideh, 2014). Thus, it is not

particularly surprising that teachers reflect emergent literacy components in their teaching practices.

Kindergarten teachers' reported use of evidence-based strategies to support emergent literacy was higher concerning knowledge of letters and words, followed by print awareness and knowledge and understanding of books. Most early childhood teachers in the GCC countries expose children to letters, words, and books to help them develop their emergent literacy skills. The work of Adams (1990) and Phillips et al. (2012) suggested that knowledge of letters and words is considered the strongest predictor of later reading proficiency. The reason may be due to the prevalent belief that teaching literacy in early years assumes that children learn how to read by acquiring alphabetical knowledge of some frequently used words (Morrow, 2009; Sulzby & Teale, 1991).

However, early writing ability ranked lowest among kindergarten teachers. This result reflects the fact that teachers place little value on early writing development compared to other emergent literacy components. This result may be because teachers lack knowledge of early writing development. They might still abandon exposing children to real writing experience at these early years, as teachers may emphasize children mastering readiness skills before being involved in the writing process (Ihmeideh, Al-Basheer, & Al-Momani, 2008).

### ***Differences in the development emergent literacy in the GCC countries***

Results revealed that the differences in the development of children's emergent literacy were statistically significant between UAE teachers on the one hand and Oman, Qatar and Saudi Arabia teachers on the other hand in favour of UAE kindergarten teachers. This indicated that UAE teachers reported higher use of evidence-based strategies to support emergent literacy, while Qatar teachers were ranked second, followed by Omani teachers. It is worth mentioning that the UAE has recently paid much interest in early childhood education and provided teachers with developmentally appropriate practices, included early literacy development. This has been noticed from the new curriculum introduced to kindergarten teachers which contained early literacy components. Moreover, Qatar also has witnessed educational reform, aimed at improving the quality of the teaching and learning processes in all stages, including early years. Foundation curriculum for early year education was introduced, emphasizing good literacy practice (Foundation Curriculum for Early Year Education, 2011). For instance, Qatar established programs and projects that aimed at improving reading and literacy among young children (e.g., Qatar University's Reading Together for Qatar Project, Bloomsbury Qatar Foundation Publishing's Literacy Motivations Projects, Childhood Cultural Center's reading and writing activities, etc.). These programs were implemented in cooperation with teachers in Qatari schools which help teachers improve their literacy practices and promote children's literacy progress.

Against this background, teachers in Saudi Arabia reported lower use of emergent literacy strategies. This may be due to the fact that the Saudi Arabia curriculum dated back to the as early as 1990s, and teachers in Saudi Arabia may not be exposed to the modern and contemporary trends in early literacy practices (Ministry of Education, 1998). The elements of reading readiness perspectives may still dominate in the field of early childhood education in most developing countries as most teachers hold traditional perspective of literacy learning which differs from the emergent literacy perspective (Ihmeideh, Al-Basheer, & Al-Momani, 2008). This has been clearly noticed as teachers in most developing countries including teachers in Saudi Arabia were more concerned about the readiness skills, instead of encouraging children's emergent skills by exposing them to print, books and stories.

### *Demographic variables and group differences*

Results indicated that there were significant differences that are attributed to teachers' years of teaching experience in the development of emergent literacy in favour of experienced teachers. This is because many years of experience may provide teachers with a framework of understanding about how literacy instruction works for young children. This result is different from Vartuli's (1999) study who found that early childhood teachers with more years of teaching experience were unlikely to have more modern learning practices views.

The results revealed significant differences that are attributed to teachers' academic qualifications in the development of emergent literacy in in favour of teachers with diploma, followed by teachers with high schools. This was surprising as we assumed that teachers with higher education levels (Bachelor's degree and above) may be more likely to use more evidence-based strategies to support children's emergent literacy skills. Teachers with diploma qualifications may be exposed to several in-service training courses which improve their literacy practices and provide them with evidence literacy strategies. This result raises a question of whether teacher education programs helps teachers with Bachelor's degree and above, and promote their literacy practices.

In addition, the results revealed significant differences that are attributed to teachers' specialization in the development of emergent literacy in favour of teachers with early childhood-related majors and teachers with general education-related majors. Teachers with specialization relevant to education in general and early childhood education in particular have opportunities to become more knowledgeable about the theories of child development, and have knowledge related to the early literacy development. This knowledge may have a more positive influence on teachers' use of strategies than teachers whose area of study in college or university is irrelevant to Early Childhood Education (ECE). This is because those teachers with specialization irrelevant to early childhood education are not initially educated and trained to be teachers for young children;

hence they lack knowledge and practice about early years learning. This finding is similar to the results of Snider and Fu (1990) and Vartuli (1999) who concluded that teachers who hold early childhood-related qualification are more likely to use appropriate literacy practices than teachers holding other qualifications.

Finally, the results showed that there were significant differences in teachers' reported use of evidence-based emergent literacy strategies that are attributed to the preschool level. These differences were only noticed with regards to early writing ability domain in favour of those who teach in level two (aged 5–6). The reason behind this result may be attributed to the fact that kindergarten teachers may think that children in level one do not need to experience writing at this early stage (aged 4–5) until they reach level two. Martinez and Teale (1987) pointed out that there was a wrong assumption among some educators that children are not able to write until they mastered a set of readiness skills. In this context, the International Reading Association (IRA) & the National Association for the Education of Young Children (NAEYC) (1998) emphasized that preventing children from literacy experiences until they become enough matured can harshly limit children's reading and writing abilities (IRA & NAEYC, 1998, p. 2).

## Conclusion

It can be concluded that the evidence-based strategies in emergent literacy as practiced by kindergarten teachers, to some extent, varies across countries. In the four countries, the overall mean showed that teachers' reported use of evidence-based emergent literacy strategies were fairly moderate. In addition, higher use of evidence-based strategies were reported by experienced teachers, teachers with education- and early childhood-related qualifications, and teachers with higher qualification as well as teachers who teach preschool level two.

Based on these conclusions, several recommendations are provided. It is recommended that the Ministry of Education and Supreme Education Council in these countries should play a crucial role in emphasizing evidence-based emergent literacy strategies in early years settings. This could be done by providing kindergarten teachers with professional development programs to help them understand emergent literacy development. It is also recommended that the early childhood education study plans at universities be reviewed, to make sure that these programs include evidence-based emergent literacy strategies for promoting children's emergent literacy skills.

The obvious limitation of the present study is its methods of data collection as it relied largely on a quantitative approach. Thus, a qualitative approach should be used to provide a wider perspective of the development of children's emergent literacy skills, as perceived by teachers, principals, parents and children by using qualitative methods of data collection (e.g., interviews and classroom observations). Moreover, conducting further studies to explore the evidence-based emergent literacy strategies which include other emergent



literacy components such as oral language and vocabulary would be required. This study might be of interest to literacy researchers in another context in the world to carry out comparative studies to explore evidence-based strategies in all emergent literacy components in different national contexts. Furthermore, the sample selected in this current study was only limited to four countries in the GCC countries. Therefore, additional research is needed to include other GCC countries such as Kuwait and Bahrain to help ensure a more reliable generalization of the study results.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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## References

- Adams, M. (1990). *Beginning to read*. Cambridge, MA: MIT Press.
- Al-Medadi, F., & Ihmeideh, F. (2014). *Assessment of literacy experiences in Qatari kindergarten curriculum in light of developmentally appropriate practice*. Paper presented at the 4P th P Annual Conference on Educational Reform "Performance Assessment: The Road to Quality in Education", Qatar University, Doha, Qatar, March, 2014.
- Al-Qaryouti, I. & Kilani, H. (2015). Role of Omani parents: Fostering emergent literacy skills, Education 3-13: *International Journal of Primary, Elementary and Early Years Education*, 43, 336–348.
- Anthony, J., Lonigan, C., Burgess, S., Driscoll, K., Phillips, B., & Bloomfield, B. (2002). Structure of preschool phonological sensitivity: Overlapping sensitivity to rhyme, words, syllables, and phonemes. *Journal of Experimental Child Psychology*, 82, 65–92.
- Arabian Business. (2014). *Low literacy rate in Saudi Arabia demands compulsory education*. Retrieved August 3, 2015, from [www.arabianbusiness.com/low-literacy-rate-in-saudi-arabia-demands-compulsory-education-571312](http://www.arabianbusiness.com/low-literacy-rate-in-saudi-arabia-demands-compulsory-education-571312).
- Christie, F. (1987). Factual writing in the first years of school. *Australian Journal of Reading*, 10, 207–216.
- Christie, J. (2008). The scientifically based reading research approach to early literacy instruction. In L. M. Justice & C. Vukelich (Eds.), *Achieving excellence in preschool literacy instruction* (pp. 25–40). New York, NY: Guilford.
- Cunningham, A., Zibulsky, J., & Callahan, M. (2009). Starting small: Building preschool teacher knowledge that supports early literacy development. *Reading and Writing: An Interdisciplinary Journal*, 22, 487–510.
- Drouin, M., & Harmon, J. (2009). Name writing and letter knowledge in preschoolers: Incongruities in skills and the usefulness of name writing as a developmental indicator. *Early Childhood Research Quarterly*, 24, 263–270.
- Duke, N., & Kays, J. (1998). "Can I say 'once upon a time'?: Kindergarten children developing knowledge of informational book language. *Early Childhood Research Quarterly*, 12, 295–318.

- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research, 38*, 47–65.
- Footo, L., Smith, J., & Ellis, F. (2004). The impact of teachers' Beliefs on the literacy experiences of young children; a New Zealand perspective. *Early Years, 24*, 135–147.
- Foulin, N. (2005). Why is letter name knowledge such a good predictor of learning to read? *Reading and Writing, 18*, 129–155.
- Foundation Curriculum for Early Year Education. (2011). *Supreme education council*. Doha: Qatar.
- Girard, L., Girolametto, L., Weitzman, E., & Greenberg, J. (2013). Educators' literacy practices in two emergent literacy contexts. *Journal of Research in Childhood Education, 27*, 46–60.
- Graves, D. H. (1983). *Writing: Teachers and children at work*. London: Heinemann Educational Books.
- Hsiac, W. (2003). *Comparison of Montessori and non-Montessori, teachers' beliefs about developmentally appropriate practices in preschools* (Unpublished Ed.D. thesis). University of Northern Colorado.
- Ihmeideh, F., Al-Basheer, A., & Al-Momani, I. (2008). Jordanian student teachers' perceptions of teaching writing in kindergartens during their field training experience. *European Journal for Teacher Education, 31*, 403–417.
- International Reading Association (IRA) and National Association for Education of Young Children (NAEYC) (1998). Learning to read and write: Developmentally appropriate practices for young children. *The Reading Teacher, 52*, 193–216.
- Levin, H., & Ehri, L. (2009). Young children's ability to read and spell their own and classmates' names: The role of letter knowledge. *Scientific Studies of Reading, 13*, 249–273.
- Lonigan, C. (2006). Development, assessment, and promotion of pre-literacy skills. *Early Education and Development, 17*, 91–114.
- Lonigan, C., Burgess, S., & Anthony, J. (2000). Development of emergent literacy and early reading skills in preschool children: Evidence from a latent-variable longitudinal study. *Developmental Psychology, 36*, 596–613.
- Lonigan, C., Schatschneider, C., & Westberg, L. (2008). *Results of the national early literacy panel research synthesis: Identification of children's skills and abilities linked to later outcomes in reading, writing, and spelling* (pp. 55–106). Washington, DC: National Early Literacy Panel.
- Martinez, M., & Teale, W. (1987). The ins and outs of a kindergarten writing programme. *The Reading Teacher, 40*, 444–451.
- Mather, N., Bos, C., & Babur, N. (2001). Perceptions and knowledge of pre-service and in-service teachers about early literacy instruction. *Journal of Learning Disabilities, 34*, 472–482.
- Middle East Partnership Initiatives. (2012). *MEPI supports the strengthening of literacy policy in Qatar*. Retrieved August 3, 2014, from [www.arabianpeninsula.mepi.state.gov/q\\_12162012](http://www.arabianpeninsula.mepi.state.gov/q_12162012).
- Ministry of Education. (1998). *Kindergarten curriculum in Saudi Arabia*. Riyadh.
- Morrow, L. (2009). *Literacy development in the early years: Helping children read and write*. Boston, MA: Pearson Education.
- Muzevich, K. (1999). *Emergent writing in the kindergarten classroom: teachers' beliefs and practices*. Unpublished doctoral dissertation. University of Widener, Chester, PA.
- Niessen, N., Strattman, K., & Scudder, R. (2011). The influence of three emergent literacy skills on the invented spellings of 4-year-olds. *Communication Disorders Quarterly, 32*, 93–102.

- Owodally, A. (2015). Code-related aspects of emergent literacy: How prepared are preschoolers for the challenges of literacy in an EFL context? *Early Child Development and Care*, 185, 509–527.
- Peeters, M., Moor, J., & Verhoeven, L. (2011). Emergent literacy activities, instructional adaptations and school absence of children with cerebral palsy in special education. *Research in Developmental Disabilities*, 32, 659–668.
- Phillips, B., Piasta, S., Anthony, J., Lonigan, C., & Francis, D. (2012). IRTs of the ABCs: Children's letter name acquisition. *Journal of School Psychology*, 50, 461–481.
- Puranik, C., Lonigan, C., & Kim, Y. S. (2011). Contribution of emergent literacy skills to name writing, letter writing and spelling in preschool children. *Early Childhood Quarterly*, 26, 465–474.
- Randolph, L., & Robertson, K. (1995). Early childhood and writing. *Teaching*, 25, 76–77.
- Rog, L. (2001). *Early literacy instruction in kindergarten*. Newark, DE: International Reading Association.
- Share, D. (2004). Knowing letter names and learning letter sounds: A causal connection. *Journal of Experimental Child Psychology*, 88, 213–233.
- Snider, M., & Fu, V. (1990). The effect of specialized education and job experience on early childhood teacher's knowledge of developmentally appropriate practice. *Early Childhood Research Quarterly*, 5, 69–78.
- Snow, C., Burns, M., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Strickland, D., & Schickedanz, J. (2004). *Learning about print in preschool: Working with letters, words, and beginning links with phonemic awareness*. Newark, DE: International Reading Association.
- Sulzby, E. (1992). Research directions: Translation from emergent to conventional writing. *Language Arts*, 69, 290–297.
- Sulzby, E., & Teale, W. (1991). Emergent literacy. In R. Barr, M. Kamil P. Mosenthal, & P. Pearson. *Handbook of reading research* (pp. 727–757). (Vol. 2). New York, NY: Longman.
- Tatweer Company for Academic Services. (2012). *The development of education in the kindergarten program*. Retrieved April 4, 2015, from <https://kids.tatweer.edu.sa/>
- Teale, W., & Sulzby, E. (1986). *Emergent literacy: Writing and reading*. Norwood, NJ: Ablex.
- Tibi, S., Joshi, M., & McLeod, L. (2013). Emergent writing of young children in the United Arab Emirates. *Written Language & Literacy*, 16, 77–105.
- Torgesen, J. (2002). The prevention of reading difficulties. *Journal of School Psychology*, 40, 7–26.
- United Nations Educational, Scientific and Cultural Organization. (2011). *UNESCO education for all global monitoring report: The hidden crisis: Armed conflict and education*. Paris: UNESCO.
- Vartuli, S. (1999). How early childhood teacher beliefs vary across grade level. *Early Childhood Research Quarterly*, 14, 489–514.
- Vloedgraven, J., & Verhoeven, L. (2007). Screening of phonological awareness in the early elementary grades: An IRT approach. *Annals of Dyslexia*, 57, 33–50.
- Wagner, R., Torgesen, J., & Rashotte, C. (1994). Development of reading-related phonological processing abilities: New evidence of bidirectional causality from a latent variable longitudinal study. *Developmental Psychology*, 30, 73–87.

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