Emergent Literacy: Knowledge and Belief of Preschool Teachers in Kerala

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Abstract

Emergent literacy skills are considered as very important precursors for the development of conventional literacy skills. Knowledge and belief of preschool teachers regarding emergent literacy are influenced by their educational qualification and number of years of experience. Classroom practices as well as academic performance of children are likely to differ based on the above two factors. The current study aims to investigate the knowledge and belief of preschool teachers in Kerala, a southern state of India about emergent literacy. A survey was conducted with 20-item questionnaire. Forty-eight female preschool teachers from 10 CBSE schools of south Kerala were selected for the study. Questionnaire was administered individually through an interview method. Results revealed that neither educational qualification nor years of experience have an impact on teachers’ knowledge and belief. The results are discussed with reference to the in-service training programs offered to preschool teachers.

Keywords: Kerala State, preschool teachers, emergent literacy, knowledge and belief.

The academic success of an individual is influenced by a range of factors such as biological, environmental, social and instructional methods. Studies on instructional and environmental constructs have established the importance of early literacy skills (National Early Literacy Panel, NELP, 2008; Neuman & Dickinson; 2001), which are considered to be precursors of conventional literacy skills. Importance of preschool period in later reading success has been much investigated.
Emergent literacy skills or attitudes develop long before children enter formal schooling system. During the emergent literacy phase, children learn about reading rather than learning to read and they develop knowledge and attitudes about literacy in early childhood itself. Research in this area asserts that emergent literacy skills predict reading success in school years. Whitehurst and Lonigan (1998) developed a model for emergent literacy skills which encompasses outside-in processes and inside-out processes. The outside-in process includes oral language, narrative skills, print conventions, and emergent reading. Inside-out processes are code related skills like phonological awareness skills, rapid automatized naming, phonological memory, print motivation and phoneme-grapheme correspondence.

As emergent literacy skills develop prior to formal instruction, engaging the child with literacy-rich activities during this age becomes very important. Earlier, proponents of emergent literacy acknowledged only the importance of social interaction in the development of emergent literacy. However, due to increased academic expectations in the recent years, they also acknowledge the importance of direct instruction which refers to well-planned systematic guidance and not formal instructions. Hence, Sulzby and Teale (1991) stated that though emergent literacy is considered as a developmental continuum, it must be intentionally taught well before first grade. However, in the recent past, there is a general agreement that literacy environments have a key role in the development of emergent literacy skills (Gustafsson & Mellgren, 2002; Neuman, 2007). Carroll (2013) lists four factors that impact literacy development - parents who serve as their children’s first teachers; access to high-quality preschool; kindergarten programs that help children catch up if they missed out on preschool; and skilled instruction in the first through third grades. The second and third factors are focused on the preschool environment.

Numerous studies on the role of preschool environment suggest that preschool and day-care environments positively influence children’s emergent literacy (Bryant, Burchinal, Lau, & Sparling, 1994; Schliecker, White & Jacobs, 1991). Bryant et al., (1994) state that children’s cognitive and achievement scores can be predicted using Early Childhood Environmental Rating...
Scale (ECERS) scores used for measuring the daycare quality when the home environment was controlled. Preschool environment implicitly determines children’s academic success by its influence on emergent literacy development. The quality of interaction in the preschool environments, daycare attendance, and preschool teachers’ attitude is significant for children’s motivation in the early literacy learning process. Teachers can facilitate emergent literacy development through play activities (Norling, 2014), and shared book reading (Carrol, 2013). Yet, emergent literacy perspectives are not widely accepted or used by preschool teachers even though there is a wide agreement about the importance of emergent literacy skills in later reading success. Apart from the preschool environment, majority of recent studies in this area are focused on preschool teachers’ beliefs about emergent literacy in the various cultural background.

A growing body of research exists in the field of preschool teachers’ belief about emergent literacy (Cunningham, Zibuksky, & Callahan, 2009; Lopes & Fernandes, 2009; Norling, 2014; Sandvik, van Daal, & Ader, 2014) suggests that classroom practices and subsequently children’s outcomes are influenced by their belief. McMullen et al., (2006) reported that teachers’ self-reported statements that revealed developmentally appropriate practice during playtime was contradictory to their actual classroom practices with more traditional methods. In contrast, a focused group interview conducted by Norling (2014) on 188 preschool staff in Swedish preschool affirm that preschool staff used emergent literacy approaches during the whole day. Very few studies have been focused on the relationship between teachers’ belief and children outcome. A comparative study done by Cash, Cabell, Hamre, Decoster and Pianta (2015) about the language and literacy belief and knowledge of teachers and child development indicate that teachers’ knowledge is a better predictor of language and literacy skills of children than their belief. They also suggested that this knowledge will help teachers to implement better practices and innovative strategies and thereby promote literacy success.

Lynch and Owston (2015) compared the preschool teachers’ beliefs for code related skills, oral language skills, book reading and writing skills. The results revealed that code related skills such as print knowledge and phonological awareness showed lower evidence-based practices compared to oral language skills. They also found that teachers with less experience had beliefs that synchronize with research evidence. Studying teachers’ beliefs can shed light on how teachers use and evaluate instructional practices (Nisbett & Ross, 1980; Shavelson, 1983; Shavelson & Stern, 1981). It may be expected that belief and practices of teachers can be influenced by variables like their years of experience, educational qualification, in-service training programs. Girolametto, Wietzman, and Greenberg (2006) investigated the influence of in-service program on teachers’ practices and children’s performance. Despite the improvement in teachers’ practice, children’s vocabulary and peer interaction were reported as inadequate. A focused group interview conducted by Lopes and Fernandes (2009) reveals that preschool teachers believe that rather than in-service
teacher education, experience has a significant role in influencing their beliefs and practices. The findings also assert that most of their daily practices do not involve emergent literacy-focused activities. Research on belief or attitudes of teachers in this regard shows that it varies with culture (Samuelsson et al., 2007; Sandvik et al., 2014) across countries (Cornoldi, Capodieci, Miranda, & Shepard, 2016). Thus, these aspects must be viewed within appropriate cultural context.

Very limited number of studies have been done in the field of early childhood education especially on teachers’ belief and knowledge on emergent literacy in Indian context. Kerala is the first complete literate state in India as well as the first Indian state to achieve complete primary education (Shaju Philip, 2016). Studying emergent literacy beliefs and knowledge of preschool teachers in unique State like Kerala is very much desirable. Whether teachers are guided by earlier reading readiness perspective or the recent emergent literacy perspective is one of the concerns that led to conceptualization of the present study. Purpose of the study was to investigate the knowledge and beliefs of preschool teachers regarding emergent literacy. Research questions addressed in this study are:

Does knowledge and belief of emergent literacy in preschool teachers differ,
   a) With regard to their years of experience?
   b) With regard to their level of educational qualification?

Method
Participants

The sample consisted of 48 female preschool teachers from 10 CBSE schools of south Kerala who were selected through purposive sampling method. Age of the teachers ranged from 24-51 years with a mean age of 37 years. The years of experience ranged from one year to 22 years with a mean of 10 years. All teachers had undergone preprimary teachers training program. Educational qualification of teachers ranged from post SSLC / TTC (Teachers Training Course) through Post graduation. Participant details are presented in Table 1.

Table 1.

<table>
<thead>
<tr>
<th>Participant details</th>
<th>Number of participants(N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>12</td>
</tr>
<tr>
<td>30-40</td>
<td>18</td>
</tr>
<tr>
<td>40-50</td>
<td>18</td>
</tr>
<tr>
<td>Teaching experience</td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>14</td>
</tr>
<tr>
<td>5-10</td>
<td>8</td>
</tr>
<tr>
<td>10-15</td>
<td>12</td>
</tr>
</tbody>
</table>
Research Design and Instrument

Survey method was used to collect data from the sample. A 20 item questionnaire was developed in English for the study (See Appendix A for details). An extensive literature review of emergent literacy skills and knowledge and beliefs of preschool teachers on emergent literacy was used to develop the items for the survey. The current study used 3 points Likert scale for rating each item. Derrington’s (2009) guidelines were followed to develop the questionnaire. As per this guideline, 2 or 3 reviewers need to read the survey question for ensuring the clarity of the phrase and the appropriateness of the content to the research context. So, the developed questionnaire was given to six B. Ed. students to check for the clarity, ambiguity and appropriateness of the phrases included in the questionnaire. Few items were edited further as recommended by the judges. Nine items were negatively stated to reduce false positive responses by respondents who might use a consistent pattern in giving responses. These negative statements were later reverse scored (Please see Appendix I for questionnaire). The questionnaire consisted of two sections. Section I contained questions about demographic details such as age, gender, educational qualification, years of experience and medium of instruction. In section II, 20 statements were included, and these statements were focused on knowledge and belief of preschool teachers on emergent literacy aspects, best teaching strategies, linguistic perspective on literacy development, the influence of environmental factors such as socioeconomic status, the role of teachers, and role of parents.

Procedure

Purpose of the study as well as the confidentiality was discussed with the school principals and permission was taken from the respective authorities. The questionnaire was administered individually by an interview method which took approximately 10 minutes to administer on each participant. The interview was carried out in a quiet room within the school. Participants were informed about the purpose of the study and the confidentiality of their responses. Informed written consent was taken from the participants. Participants were instructed to rate each statement on a three-point rating scale.

Statistical Analysis
The data was tabulated and analyzed using SPSS 17 version. Preliminary analyses to check for the normality revealed that the data was not following normal distribution \((p<0.05)\). Hence, nonparametric tests were used for further analyses. To address research questions, the data was analyzed using frequency distribution, median and chi-square tests.

**Results**

The participants were grouped into two groups based on the education level and years of experience. In order to address the first research question i.e. is there any difference in the knowledge and belief of preschool teachers with respect to their years of teaching experience, the entire sample was divided into two groups based on years of teaching experience- Group 1 (less than or equal to 10 years of experience) with 22 participants and Group 2 (more than 10 years of experience) with 26 participants. Frequency distribution of data based on years of experience revealed that 46% of the participants had less than 10 years of experience while 54% had more than 10 years of experience.

To address the second research question, i.e., is there any difference in the knowledge and belief of preschool teachers with regard to their level of educational qualification, grouping was made based on education level as well. Grouping was made using dichotomous pattern with graduation as the discriminating point. Therefore, Group 1 consisted of 34 participants with educational background below or equal to graduation, such as TTC or any graduation and Group 2 consisted of 14 participants with post-graduation or B. Ed. in special education. Table 2 depicts the frequency distribution of preschool teachers on the basis of years of experience and educational qualification.

<table>
<thead>
<tr>
<th>Educational qualification</th>
<th>Number of teachers</th>
<th>Years of experience</th>
<th>Number of teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1 (TTC or degree)</td>
<td>34</td>
<td>Group 1 (≤ 10yrs)</td>
<td>20</td>
</tr>
<tr>
<td>Group 2 (Post graduation or B. Ed.)</td>
<td>14</td>
<td>Group 2 (≥ 10yrs)</td>
<td>28</td>
</tr>
</tbody>
</table>

*TTC-Teachers Training Certificate, B. Ed- Bachelor of Education

Data was analyzed using descriptive statistics for total scores and individual items. Frequency distribution, mean, median, and standard deviation for all the variables under study were calculated. The knowledge and beliefs of preschool teachers were scored for two groups with respect to the years of experience (Group 1; <10 years of experience and group 2; >10 years of experience).
experience). Mean scores of group 1 and 2 were 24 and 25 respectively. Mann-Whitney U test was employed to examine differences between groups if any. As shown in Table 3 results indicated no significant difference between the two groups ($|z| = 1.13, p = 0.26$). This indicates that beliefs and knowledge of preschool teachers were not significantly different with respect to the years of experience.

Table 3

<table>
<thead>
<tr>
<th>Comparison based on years of experience</th>
<th>Group 1 Mean</th>
<th>Group 2 Mean</th>
<th>Pairwise Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison based on educational level</td>
<td>24</td>
<td>25</td>
<td>1.13</td>
</tr>
</tbody>
</table>

To verify the association of teachers’ beliefs and knowledge with their years of experience, Spearman’s rho was also calculated as the data was not following normality. The results showed no significant association between teachers’ knowledge and beliefs with their years of experience ($r = -.280, p = .054$).

The second research question addressed in the present study was to find out if any there is a difference in the knowledge and beliefs of preschool teachers based on their educational level. Even though 70% of teachers were in group 1 (below or equal to graduation level), there was no significant difference in their beliefs compared to the Group 2 with higher education background ($|z| = 2.290, p = .840$). Spearman’s rho value ($r = .029, p = .845$) showed no significant association between the education level of preschool teachers and their total scores on knowledge and belief about emergent literacy. Table 4 illustrates chi-square values and level of significance for the twenty questions in terms of educational background and years of experience.

Table 4

<table>
<thead>
<tr>
<th>Question no.</th>
<th>Education background ($\chi^2$)</th>
<th>Sig.</th>
<th>Years experience ($\chi^2$)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>.416</td>
<td>.816</td>
<td>2.528</td>
<td>.283</td>
</tr>
<tr>
<td>2.</td>
<td>1.850</td>
<td>.174</td>
<td>3.679</td>
<td>.055</td>
</tr>
<tr>
<td>3.</td>
<td>.960</td>
<td>.619</td>
<td>8.468</td>
<td>.014</td>
</tr>
<tr>
<td>4.</td>
<td>.917</td>
<td>.338</td>
<td>.125</td>
<td>.724</td>
</tr>
</tbody>
</table>
A descriptive analysis of the data was done to answer the third question. Teacher’s agreement in each of the statements was analyzed. Across the questions knowledge about code related skills (phonics, rhyming, print knowledge, alphabetic principle) role of school, and role of parents showed strong agreement among teachers. This indicates that their beliefs are more in line with the evidence based research for the above aspects. However, disagreement observed in case of oral language skills, early identification, teaching strategies and linguistic perspectives among teachers. This reveals the lack of coherence in the belief of preschool teachers with the evidence based research. Questions in which teachers were uncertain did not show any effect of educational level or years of experiences. This result contradicts the findings that teachers with less experience have beliefs more in line with evidence based research.

Discussion

Results of the current study revealed that there is no significant difference in the knowledge and belief of preschool teachers either with their years of experience or the educational level. These findings shed light on the fact that number of years of experience of preschool teachers is not a major concern in the area of early childhood education. In view of the absence of statistical significance, a qualitative analysis of the data was also done to compare the performance of teachers for each question. Teacher’s agreement in each of the statements was analyzed. Among the questions, those which focused on belief about code-related skills (phonics, rhyming, print knowledge, alphabetic principle), the role of school, and the role of parents showed strong agreement among teachers.
This indicates that they have a positive belief and good knowledge about these aspects, suggesting that their knowledge and beliefs are more in line with the current findings from other countries (Lopes & Fernandes, 2009; Sandvik et al. 2014). However, level of agreement was low in case of oral language skills, early identification, teaching strategies and linguistic perspectives among teachers suggesting that there is a wide scope to enhance the knowledge of teachers. Questions in which teachers were uncertain did not show any effect of educational level or years of experiences.

Irrespective of the level of educational qualification and years of experience preschool teachers have fairly positive belief and knowledge on emergent literacy skills, the role of teachers and parents, but were not sure about the teaching strategies and early identification. This is in contrast to earlier findings by many researchers, wherein they argued that beliefs of teachers were influenced by years of experience and educational qualification (Lynch & Owston, 2015; Lopes & Fernandes, 2009). Lynch and Owston (2015) assert that educational background doesn’t have an impact on belief, whereas number of years of experience is strongly correlated with beliefs especially for domains like oral language and vocabulary development. In the present study, teachers with less experience had beliefs more in line with the research evidences. While, Lopes and Fernandes (2009) found that educational level of participants determines the oral language and print related activities, since teachers with a low level of training engaged children less in those activities.

Absence of no significant difference in knowledge and belief of preschool teachers on emergent literacy with respect to educational level, may lead to the assumption that though the teaching pedagogy of various teacher education programs are different, it has least significant influence on preschool teachers’ belief and knowledge. The lack of difference with respect to educational background and years of experience may be attributed to the in-service training program that these teachers are provided with as a policy. Hence, this implies that, the in-service education programs are more important than the curriculum of teachers’ education program or level of education of preschool teachers. These findings may also be due to the socially acceptable responses of preschool teachers.

As the topic of the study was explained to the participants prior to initiation of the study, the probability of preschool teachers providing socially acceptable responses would have led to the insignificant difference. As evidenced by various studies, beliefs of preschool teachers influence their practices which in turn have a substantial influence on later child outcomes (Fang, 1996; Foote, Smith, & Ellis, 2004). Examining measures of teachers’ beliefs and knowledge assist in setting up goals for teacher education and teacher training curriculum.
As teachers in the current study showed a low level of agreement for teaching strategies and early identification, it indicates the need for more focus on this concern during the professional development and teacher training program. In addition to this, awareness regarding emergent literacy helps in early identification of children at risk of academic failure in future. Therefore, in-service training programs should also emphasize on research-based guidelines for promoting emergent literacy, strategies and tools to implement these strategies. Though, literacy awareness programs affect the belief of teachers, it did not influence the practice of preschool teachers significantly as evidenced by research (Sandvik, et al., 2014).

There is no evidences available on the effectiveness of in-service programs on the practice of preschool teachers in our scenario. However, these modifications can be included in the training programs if it has not been included at present, expecting to have an impact on their practice and later child outcome.

As the current study measures belief and knowledge of preschool teachers, interpretation and generalization of the results has to be done with caution. There exists a debate regarding the efficacy of belief and knowledge measures in this area. Cash, et al., (2015) found that beliefs of preschool teachers show no significant association with children’s skills whereas knowledge of language and literacy skills could predict the expressive vocabulary and print knowledge respectively. Preschool and elementary teachers overestimate their language and literacy knowledge and are confused with terminologies like phoneme, morphological awareness etc. (Cunningham, et al., 2009). Therefore, studies assessing the knowledge of language and literacy skills of preschool teachers would be more reliable and can be planned for future research. In conclusion, the current study reveals that preschool teacher’s beliefs and knowledge about emergent literacy are consistent and are in line with research advances. But this is not attributed to their educational qualification or years of experience rather in the in-service training programs they would have attended.

Limitations

Though the current study is the first of its kind in this area especially in Kerala, it has a few limitations. As the research instrument used for this survey was newly developed, extensive piloting would have helped in refining the questionnaire. Regarding the validity of the questionnaire, only content validity was done for this tool. Further refinement of this tool by including other features of teacher’s beliefs, a grouping of the question items into subscales would have given a clear picture of teachers’ belief and knowledge. A five or six-point rating scaling would have given a better clarity of responses than the three-point rating scale used in this study. The other limitation of the current study is with respect to generalizing the findings to other areas and susceptibility of these findings to change in the future.
**Future Research**

Since there is no effect of educational level or years of experience the factor which contributes to their beliefs may the in-service training program given to the preschool teachers in Kerala. Comparative studies of teacher’s who are attending a training program and not attending can be done in future. This may help in improving the quality of education for preschoolers. As teachers’ belief have a strong impact on classroom practices and academic success of children, studies relating teacher’s beliefs, knowledge their practice and outcome can be considered as a future plan. Also, studies based on teacher’s knowledge and classroom observations can be planned in future.

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**APPENDIX 1**

**QUESTIONNAIRE - BELIEF AND KNOWLEDGE OF PRESCHOOL TEACHERS ON EMERGENT LITERACY**

**Demographic Details**

Name: 
Age& Gender: 
Educational qualification: 
Years of experience: 
Trained pre-primary teacher: Yes/No 
Medium of instruction for teaching: 
Mobile no: 
Email: 

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Questions</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Children at risk for learning disability can be identified at preschool</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Children should be given literacy training only after a certain age.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Children’s literacy development is related to socioeconomic status.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4.</td>
<td>Emergent literacy is a skill which develops with formal schooling instruction</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Emergent literacy is the knowledge of letters and numbers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Successive reading is due to the quality of school and not due to emergent literacy skills</td>
<td></td>
<td></td>
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<tr>
<td>7.</td>
<td>Emergent literacy skills cannot be facilitated by family members without the teachers support</td>
<td></td>
<td></td>
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<tr>
<td>8.</td>
<td>Preschool children find it difficult to learn if taught in two languages.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Methods of teaching are similar irrespective of the languages taught.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statement</td>
<td></td>
<td></td>
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<tr>
<td>---</td>
<td>---------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Speech and language skills (Oral language skills) do not influence child’s literacy development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Print knowledge (print conveys meaning, reading from top to bottom etc.) predicts literacy success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Storytelling and shared book reading facilitate literacy development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Phonics training in preschool helps children to develop better letter–sound knowledge and reading skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Success in reading is not determined by the ability to rhyme, blend and segment speech sounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Learning disability is often seen in children who are exposed to TV, cartoon films and show poor social interaction skills.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Book handling skills of a child has no role in literacy success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Children with learning disability cannot be cured because they have poor intelligence.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Occurrence of learning disability is increasing in recent years because of exposure to two or three languages.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Modification in educational system/ curriculum, training or support for preschool teachers can reduce the occurrence of learning disability.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>