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## Professional Development Needs as Determinants of Early Childhood Educators' Effectiveness in the Motheo District

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**Abstract.** The existing situation in the majority of Early Childhood Care and Education (ECCE) centres in the Free State Province raises serious concerns. Given this, the present study has investigated professional development needs as determinants of early childhood educators' effectiveness in the Motheo District. Four specific purposes have guided this study. The study adopted a correlational survey research design. Utilizing convenience sampling, a sample of 211 ECCE educators participated in the study. Two instruments were used for the data collection. They are the Early Childhood Professional Development Needs Questionnaire (ECPDNQ) and the Early Childhood Educators' Effectiveness Questionnaire (ECEEQ). The instruments' face validity and reliability were established by consulting experts for validation and obtaining Cronbach's alpha reliability coefficient values of 0.89 for the ECPDNQ and 0.85 for the ECEEQ. Regression analysis was utilized for data analysis using the Statistical Package for Social Science version 25. The findings revealed that in-service training, individualized coaching, and workshops each have a statistically significant predictive effect on the effectiveness of early childhood educators in the Motheo District. Furthermore, the combined impact of these professional development methods is also statistically significant. Based on these results, it was concluded that professional development through in-service training, individualized coaching, and workshops plays a crucial role in determining the effectiveness of early childhood educators. It is therefore recommended that early childhood educators should participate in regular professional development to keep pace with the best practices in the field of early childhood care and education as a way of enhancing their job effectiveness.

**Keywords:** Professional Development Needs; Early Childhood; Educators; Effectiveness; In-service Training; Training Needs

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## 1. Introduction

To provide a high-quality learning environment for young children, early childhood educators have a variety of needs regarding professional development. These needs usually centre on developing practical and pedagogical abilities and keeping abreast of new developments in early childhood education. Early childhood educators may deliver high-quality care and instruction that promotes children's holistic development and prepares them for future learning by attending to these professional development needs.

The early stages of child development are crucial for building the groundwork for their physical, emotional, social, and cognitive development. Early Childhood Care and Education (ECCE) programs seek to promote the well-being and optimal development of children at this stage. As a result, the quality of ECCE programs has recently attracted international notice. Studies in Australia (Russell, 2021), Greece (Gregoriadis et al., 2018), the United States (Maier and Kou, 2019), Ghana (Abaka, 2019), Zimbabwe (Chinhara & Sotuku, 2020), and South Africa (Petersen & de Beer, 2016; Gomba, 2019), to name a few, emphasize the fact that irrespective of where childhood care and education are located, it is the quality of the practitioner workforce that makes the difference. This understanding has led to various initiatives towards the professionalization of the ECCE sector in many countries (see, for example, Lau, 2017; Darling-Hammond et al., 2017; Ghana Education Services (GES), 2020; Arndt et al., 2021; Mendenhall et al., 2021).

In South Africa, the government has since recognized early childhood care and education as a critical area in transforming the various communities in the Republic (Mbarathi et al., 2016). To that end, various ECCE policies (Department of Education, 2001; Department of Social Development, 2006; Department of Social Development, 2015; Department of Basic Education, 2020) have been developed to help the government realise its vision of achieving quality in ECCE in which both educators and children can reach their full potential. Despite this, there is little research on the effectiveness of ECCE educators in South Africa especially in the Motheo District of Free State Province.

The existing situation in the majority of community-based ECCE centres in the Free State Province raises serious concerns about the quality of service offered at the centres and the effectiveness of the ECCE educators. According to empirical literature, the ECCE workforce is inadequately prepared to perform services (Kirsten, 2017; Schwartz et al., 2019). Going by the foregone, professional development has therefore become a responsibility for early childhood educators in order to stay updated on the latest practices and advancements in the field of early childhood education (Arthur et al., 2017). It is worth noting that, while many studies have looked into the importance of professional development for ECCE educators in South Africa (Atmore et al., 2012; Petersen & de Beer, 2016; Ncube, 2017; Gomba, 2019; Harrison, 2020; Mashiane-Nkabinde, 2020), little effort has been made to determine the effectiveness of ECCE educators as a result of professional development. Again,

while policies and programs for the professional development of ECCE educators may exist, it is unclear whether these educators' professional development needs are being satisfied. As a result, there is a need to conduct research into professional development needs as a determinant of early childhood educators' effectiveness in the Motheo District. Specifically, this study has investigated:

1. The predictive power of in-service training on early childhood educators' effectiveness in the Motheo District.
2. The predictive power of individualised coaching on early childhood educators' effectiveness in the Motheo District.
3. The predictive power of workshops on early childhood educators' effectiveness in the Motheo District.
4. The predictive power of the combination of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness in the Motheo District.

### **1.1 Research Questions**

The following research questions guided the study

1. What is the predictive power of in-service training on early childhood educators' effectiveness in the Motheo District?
2. What is the predictive power of individualised coaching on early childhood educators' effectiveness in the Motheo District?
3. What is the predictive power of workshops on early childhood educators' effectiveness in the Motheo District?
4. What is the predictive power of the combination of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness in the Motheo District?

### **1.2 Hypotheses**

H<sub>01</sub>: The predictive power of in-service training on early childhood educators' effectiveness in the Motheo District is not statistically significant.

H<sub>02</sub>: The predictive power of individualised coaching on early childhood educators' effectiveness in the Motheo District is not statistically significant.

H<sub>03</sub>: The predictive power of workshops on early childhood educators' effectiveness in the Motheo District is not statistically significant.

H<sub>04</sub>: The predictive power of the combination of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness in the Motheo District is not statistically significant.

## **2. Literature Review**

### **2.1. Early Childhood Educators' Effectiveness**

Early childhood care and education (ECCE) can be described in a variety of ways. However, the majority of these descriptions emphasize its vital role in caring for and educating children during their formative years. According to Shah et al. (2022), early childhood care and education (ECCE) is a comprehensive approach to the care, development, and education of young children aged from birth to around eight years old. It encompasses a wide range of programs and initiatives aimed at promoting

children's physical, cognitive, social, and emotional development during their early years. In South Africa, ECCE refers to similar programs offered to children aged zero to four (Department of Social Development, 2015). ECCE acknowledges the vital role of early experiences in developing a child's future well-being and laying the groundwork for lifelong learning. ECCE programs offer a supportive and exciting environment for children to explore, play, learn, and develop important skills. These programs can be delivered in various settings, including childcare facilities, family daycare homes, preschools, and community centres (Biersteker et al., 2016). ECCE employs qualified educators and caregivers who facilitate age-appropriate activities, promote social contact, and offer each child tailored support.

Early childhood care and education (ECCE) educators foster a secure and supportive environment for achieving ECCE. According to Adhikari (2019), these educators work with children ranging in age from birth to around eight years old, offering a supportive and stimulating atmosphere that promotes physical, emotional, social, and cognitive development. ECCE educators create and implement educational activities that assist children in gaining essential skills like language and reading, numeracy, problem-solving, social interaction, and emotional regulation (Jones et al., 2017). The success of ECCE programs is heavily reliant on the effectiveness of ECCE educators. The effectiveness of early childhood educators can be measured by various factors that contribute to positive outcomes for young children. Tayler et al. (2016), describes the effectiveness of early childhood educators in terms of pedagogical practices, child development and learning, inclusive practices, family and community engagement, socio-emotional support, and technology integration. The ability of early childhood educators to apply pedagogical techniques such as teaching strategies and instructional methods that promote children's overall development is a key component of their job effectiveness. Shah et al. (2022), emphasized that these educators employ evidence-based techniques, educational strategies, and assessment tools to track children's growth and personalize training to their specific requirements. Regarding child development and learning, effective ECCE educators establish a supportive and stimulating atmosphere, personalize instruction to individual requirements, and foster strong relationships with children and families (Warnasuriya et al., 2020).

Inclusive practices aim to create a welcoming and supportive atmosphere for all children, regardless of their abilities, backgrounds, or identities. In this regard, Kyriazopoulou et al. (2017), stated that effective ECCE educators aim to understand and accommodate all children's unique needs, give tailored help as needed, and foster healthy interactions among peers. Effective ECCE educators also understand the value of collaborating with families and communities as partners in children's education (Chan & Ritchie, 2016). Educators can foster a supportive and inclusive learning environment by communicating openly, providing information about children's progress, and involving families and communities in decision-making processes. Effective ECCE educators also model positive actions, offer direction and encouragement, and provide opportunities for children to practice and develop their

social and emotional skills (Khusnidakhon, 2021). In terms of technology integration, effective ECCE educators guarantee that technology is utilised responsibly and purposefully, accounting for children's developmental needs and interests. Early childhood educators can provide exciting and relevant learning experiences for young children by carefully and consciously incorporating technology (Obidike, 2017). Thus, ECCE educators must engage in meaningful professional development in order to keep pace with the innovations in early childhood care and education.

## **2.2. Professional Development (PD) and Early Childhood Educators' Effectiveness**

Professional development is the ongoing process of acquiring and enhancing the knowledge, skills, and competencies required for individuals to succeed in their field. Concerning this study, professional development refers to the intentional continual development of those who provide ECCE services to give them the essential skills to do their work for the benefit of the children (Gregoriadis et al., 2018; Mitter & Putcha, 2018).

The professional development of ECCE educators comprises a variety of learning activities aimed at improving their knowledge, skills, and practices. These learning activities include pedagogical methods, child development and learning, inclusive practices, family and community engagement, socio-emotional support, and technological integration (Tayler et al., 2016). For the effectiveness of the ECCE programs, early childhood educators' professional development should focus on obtaining skills and knowledge in the aforementioned areas. Researchers such as Visković and Jevtić (2018), Maier and Kou (2019), and Havea and Mohanty (2020), have in their respective studies identified several modes of professional development, such as in-service training, professional learning communities, individualized coaching, mentorship, study groups, conferencing, and workshops. To improve their effectiveness, ECCE educators would use these resources to update their understanding of pedagogical practices, child development and learning, inclusive practices, family and community engagement, socio-emotional support, and technological integration.

Professional development for early childhood educators is critical for improving their knowledge, abilities, and effectiveness in supporting young children's learning and development. Studies show why professional development for ECCE practitioners is critical. According to Mitter and Putcha (2018), professional development is essential for equipping practitioners with the knowledge they need to succeed in their roles. According to Hamre et al. (2017), a well-equipped ECCE workforce influences children's early developmental results significantly. According to Russell (2021), ECCE educators who have participated in well-structured professional development programs are better equipped to carry out their responsibilities of providing effective services to the children in their care. Furthermore, Darling-Hammond et al. (2017), found that high-quality professional development opportunities establish the required space for practitioners to share ideas and collaborate, allowing practitioners to refine and improve their learning and service provisioning constantly.

Children showed higher levels of inhibitory control in direct evaluations when their teacher had received coaching the year before, according to a study by Pianta et al. (2017). In the year following their coaching, teachers who had received both coursework and coaching stated that their students had shown increased levels of behavioural control. Markussen-Brown et al. (2017), found in another study that professional development (PD) had no influence on educator knowledge but created a big impact on structural quality and a medium effect on process quality. The findings demonstrated that professional development (PD) is a workable strategy for enhancing language and literacy processes and structures in preschools; nevertheless, if the program is to have a significant impact on child outcomes, it may need to have large effects. High pedagogical quality in early childhood education and care (ECCE) has been linked to young children's developmental outcomes (Egert et al., 2018). A medium impact of in-service training on process quality was found by aggregating the results of 36 studies involving 2,891 teachers at the teacher level. This demonstrates the beneficial association between in-service training and process quality.

There have been extensive studies on the relationship between professional development (PD) and the effectiveness of the teaching workforce (e.g., Petersen & De Beer, 2016; Darling-Hammond et al., 2017; Hamre et al., 2017). In Australia, Russell's (2021), national study of professional development resources to support children's services found that participation in professional development programs for ECCE workers provided participants with the necessary deeper levels of cognition to perform their duties to children and their families. In Greece, Gregoriadis et al. (2018: 280), evaluated 45 kindergarten teachers and reported that the participants felt professionally fulfilled after engaging in a series of professional development programs in which they experienced growth in their self-confidence while they felt that they could perform their classroom functions more effectively. Furthermore, Jensen et al. (2017), reported that participants in professional development programs aimed at equipping practitioners to support children's emotional development revealed that such programs enabled them to positively impact the social and emotional development of children aged three to five.

### **3. Methodology**

#### **3.1. Research design**

This study focuses on the professional development needs as determinants of early childhood educators' effectiveness. Therefore, the study adopted a correlational survey design. Ezeh (2015), described correlational survey design as a systematic study in which the researcher aims to determine the relationship between variables. The justification for using this design is that it will assist the researcher in determining the relationship between early childhood educators' professional development needs and their job effectiveness. The design is thus deemed appropriate for the present study.

### 3.2 Participants

The study's population included all ECCE educators working in registered ECCE facilities in the Motheo District at the time of the study. The convenience sampling technique was used to select all two hundred and eleven (211) educators who worked in the Motheo District's forty-five (45) ECCE centres for this study. According to Etikan et al. (2016), convenience sampling is a type of non-probability sampling strategy that allows the researcher to select mostly people from the target study population who are easily accessible during the course of the study.

### 3.3 Instrumentation

The primary data collection tools were two self-created questionnaires. The two questionnaires are the Early Childhood Professional Development Needs Questionnaire (ECPDNQ) and the Early Childhood Educators' Effectiveness Questionnaire (ECEEQ). The ECPDNQ was divided into two sections (A and B) and used a four-point Likert scale (McMillan & Schumacher, 2014), with responses ranging from "strongly agree" (SA) and "agree" (A), to disagree (D) and strongly disagree (SD). Section A focused on the demographic information of ECCE educators, whereas Section B comprised 30 items (ten in each cluster) distributed across three clusters to assess educators' professional development needs. The ECEEQ contained two sections (A and B) and used the four-point Likert scale (McMillan & Schumacher, 2014), ranging from "strongly agree (SA) and agree (A) to disagree (D) and strongly disagree (SD). Section A targeted the demographic information of the ECCE educators, while Section B contained ten items meant to seek information on early childhood educators' effectiveness as respondents. To establish the face validity of the instruments, measurement and evaluation specialists reviewed the items for appropriateness, clarity of language, fit for the study, item structure, and ideas for instrument improvement. To assess the instruments' coefficient of internal consistency, they were tried on a similar sample. Cronbach alpha reliability indices of 0.79 and 0.75 were obtained for the ECPDNQ and ECEEQ, respectively. The high-reliability indices found for ECPDNQ and ECEEQ indicate that the instruments are dependable and suitable for data gathering. The instruments were subsequently distributed to the ECCE educators in the ECCE centres visited for the study. In total, 211 copies of the instruments were administered and recorded for data analysis.

### 3.4 Data Analysis

The participants' replies to the questionnaire items were captured using a Microsoft Excel spreadsheet. The collected data was then imported to the Statistical Package for Social Science (SPSS) version 25 for analysis. A linear regression analysis was performed on the data. Correlation coefficient R related to regression analysis were utilised to answer research questions, while analysis of variance (ANOVA) associated with regression was used to test the hypotheses at the 0.05 level of significance. The correlation coefficients were analysed using Nwana's (1979), guideline. Coefficients ranging from 0.00-0.20 were considered very low; 0.20-0.40 (low); 0.40-0.60 (moderate); 0.60-0.80 (high); and 0.80-1.00 (very high).

## 4. Results

### 4.1 Predictive power of in-service training on early childhood educators' effectiveness in the Motheo District

**Table 1: Linear regression analysis of the predictive power of in-service training on early childhood educators' effectiveness**

Model	N	R	R <sup>2</sup>	Adjusted R <sup>2</sup>
1	211	0.83	0.68	0.68

Note: N=Number of Respondents, R=Correlation coefficient, R<sup>2</sup>=Coefficient of determination

The results in Table 1 shows the predictive power of in-service training on early childhood educators' effectiveness in the Motheo District. The result shows that the correlation coefficient (R) between in-service training and early childhood educators' effectiveness was 0.83. This demonstrates a very high positive relationship between in-service training and early childhood educators' effectiveness in the Motheo District. Furthermore, the coefficient of determination associated with the correlation coefficient of 0.83 was 0.68. The coefficient of determination shows that 68% of the variation in early childhood educators' effectiveness is attributed to in-service training. This implies that 32% of the variation in early childhood educators' effectiveness can be attributed to variables other than in-service training.

#### Hypothesis One

The predictive power of in-service training on early childhood educators' effectiveness in the Motheo District is not statistically significant.

**Table 2: Analysis of variance (F-test) of the predictive power of in-service training on early childhood educators' effectiveness**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1432.036	1	1432.036	450.038	0.00
Residual	665.045	209	3.182		
Total	2097.081	210			

$\alpha = 0.05$ , Df= Degree of freedom

The significance of regression was assessed using the F-test to test Hypothesis 1 (HO1). An F-ratio of 450.038 with an exact probability value of 0.00 was found, according to Table 2's results. Since 0.00 is less than 0.05, the probability value of 0.00 was compared to the level of significance of 0.05 to test the hypothesis, and it was determined to be significant. Therefore, the null hypothesis – which stated that there is no statistically significant relationship between in-service training and early childhood educators' efficacy in the Motheo District – was rejected. The inference drawn is that the predictive power of in-service training on early childhood educators' effectiveness in the Motheo District is statistically significant. This implies



that in-service training is a significant determinant of early childhood educators' effectiveness in the Motheo District.

#### 4.2 Predictive power of individualized coaching on early childhood educators' effectiveness in Motheo District

**Table 3: Linear regression analysis of the predictive power of individualised coaching on early childhood educators' effectiveness**

Model	N	R	R <sup>2</sup>	Adjusted R <sup>2</sup>
1	211	0.74	0.54	0.54

Note: N=Number of Respondents, R=Correlation coefficient, R<sup>2</sup>=Coefficient of determination

Table 3 presents the predictive power of individualized coaching on the effectiveness of early childhood educators in the Motheo District. The findings indicate a 0.74 correlation coefficient (R) between the efficiency of early childhood educators and individualized coaching. This demonstrates that in the Motheo District, there is a strong positive correlation between early childhood educators' effectiveness and individualized coaching. Moreover, the correlation coefficient of 0.74 was linked to a coefficient of determination of 0.54. Individualized coaching is responsible for 54% of the variance in early childhood educators' efficacy, according to the coefficient of determination. This suggests that factors other than individualized coaching account for 46% of the variation in the efficacy of early childhood educators.

#### Hypothesis Two

The predictive power of individualised coaching on early childhood educators' effectiveness in the Motheo District is not statistically significant.

**Table 4: Analysis of Variance (F-test) of the predictive power of individualised coaching on early childhood educators' effectiveness**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1133.322	1	1133.322	245.772	0.00
Residual	963.758	209	4.611		
Total	2097.081	210			

$\alpha = 0.05$ , Df = Degree of freedom

The significance of regression was assessed using the F-test in order to test Hypothesis 2 (HO2). Table 4 displays the obtained F-ratio of 245.772 with an exact probability value of 0.00. Since 0.00 is less than 0.05, the probability value of 0.00 was compared to the level of significance of 0.05 for the purpose of testing the hypothesis, and it was determined to be significant. This led to the rejection of the null hypothesis, which claimed that there was no statistically significant relationship between the effectiveness of early childhood educators in the Motheo District and their predictive abilities of individualized coaching. The inference drawn is that the predictive power

of individualised coaching on early childhood educators' effectiveness in the Motheo District is statistically significant. This implies that individualised coaching is a determinant of early childhood educators' effectiveness in the Motheo District.

### 4.3 Predictive power of workshops on early childhood educators' effectiveness in Motheo District

**Table 5: Linear regression analysis of the predictive power of workshops on early childhood educators' effectiveness**

Model	N	R	R <sup>2</sup>	Adjusted R <sup>2</sup>
1	211	0.80	0.65	0.65

Note: N=Number of Respondents, R=Correlation coefficient, R<sup>2</sup>=Coefficient of determination

The result in Table 5 shows the predictive power of workshops on early childhood educators' effectiveness in the Motheo District. The result shows that the correlation coefficient (R) between workshops and early childhood educators' effectiveness was 0.80. This shows that a high positive relationship between workshops and early childhood educators' effectiveness in the Motheo District. Furthermore, the coefficient of determination associated with the correlation coefficient of 0.80 was 0.65. The coefficient of determination shows that 65% of the variation in early childhood educators' effectiveness is attributed to workshops. This implies that 35% of the variation in early childhood educators' effectiveness can be attributed to other variables other than workshops.

#### Hypothesis Three

The predictive power of workshops on early childhood educators' effectiveness in Motheo District is not statistically significant.

**Table 6: Analysis of Variance (F-test) of the predictive power of workshops on early childhood educators' effectiveness**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1355.956	1	1355.956	382.385	0.00
Residual	741.124	209	3.546		
Total	2097.081	210			

$\alpha = 0.05$ , Df= Degree of freedom

The significance of regression was assessed using the F-test to test Hypothesis 3 (HO3). Table 6 presents the obtained F-ratio of 382.385 with an exact probability value of 0.00. Since 0.00 is less than 0.05, the probability value of 0.00 was compared to the level of significance of 0.05 for the purpose of testing the hypothesis, and it was determined to be significant. Therefore, the null hypothesis—which asserted that there is no statistically significant relationship between the workshops' predictive ability and the effectiveness of early childhood educators in the Motheo District—

was rejected. The inference drawn is that the predictive power of workshops on early childhood educators' effectiveness in the Motheo District is statistically significant. This implies that workshops are a determinant of early childhood educators' effectiveness in the Motheo District.

#### **4.4 Predictive power of the combination of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness in Motheo District**

**Table 7: Linear regression analysis of the predictive power of the combination of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness**

Model	N	R	R <sup>2</sup>	Adjusted R <sup>2</sup>
1	211	0.98	0.95	0.95

Note: N=Number of Respondents, R=Correlation coefficient, R<sup>2</sup>=Coefficient of determination

The result in Table 7 shows the predictive power of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness in the Motheo District. The result shows the correlation coefficient (R) obtained among in-service training, individualised coaching, workshops, and early childhood educators' effectiveness was 0.98. This shows that there is a very high positive relationship between in-service training, individualised coaching, workshops, and early childhood educators' effectiveness in the Motheo District. Furthermore, the coefficient of determination associated with the correlation coefficient of 0.98 was 0.95. The coefficient of determination shows that 95% of the variation in early childhood educators' effectiveness is attributed to the combination of in-service training, individualised coaching, and workshops. This implies that 5% of the variation in early childhood educators' effectiveness can be attributed to variables other than the combination of in-service training, individualised coaching, and workshops.

#### **Hypothesis Four**

The predictive power of the combination of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness in the Motheo District is not statistically significant.

**Table 8: Analysis of variance (F-test) of the predictive power of the combination of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1996.984	3	665.661	1376.593	0.00
Residual	100.096	207	.484		
Total	2097.081	210			

$\alpha = 0.05$ , Df= Degree of freedom

The significance of regression was determined using the F-test to test Hypothesis 4 (HO4). Table 8 presents the obtained F-ratio of 1376.593 with an exact probability value of 0.00. Since 0.00 is less than 0.05, the probability value of 0.00 was compared to the level of significance of 0.05 for the purpose of testing the hypothesis, and it was determined to be significant. Therefore, the null hypothesis – which stated that there was no statistically significant correlation between the efficacy of early childhood educators in the Motheo District and the combination of in-service training, individualized coaching, and workshops – was rejected. The inference drawn is that the predictive power of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness in the Motheo District is statistically significant. This implies that the combination of in-service training, individualised coaching, and workshops are a determinant of early childhood educators' effectiveness in the Motheo District.

## 5. Discussion

### 5.1. The Predictive Power of In-Service Training on Early Childhood Educators' Effectiveness

The result shows that the correlation coefficient between in-service training and early childhood educators' effectiveness is very high. By implication, an increase in early childhood educators' in-service training corresponds with an increase in their job effectiveness. The high coefficient of determination obtained from the result demonstrated a high percentage variation in early childhood educators' effectiveness that can be attributed to in-service training. This shows that in-service training is a determinant of early childhood educators' effectiveness. Further analysis of the significance of regression revealed that the predictive power of in-service training on early childhood educators' effectiveness is statistically significant. The significance of the predictive power of in-service training on early childhood educators' effectiveness may be feasible because early childhood educators' in-service training may equip them with knowledge and skills to support young children's learning and development effectively. In other words, through in-service training, early childhood educators would learn and update themselves on the best practices in the field of early child care and education that may boost their effectiveness.

The findings of the present study concerning in-service training are in line with previous findings. The finding is in agreement with the finding of Tzivinikou (2015),

who revealed that training programs had a positive impact on educators' self-efficacy and their effectiveness regarding collaborative educational interventions for their students. The study by Egert et al. (2018), also revealed a similar finding. The authors found a medium in-service training effect on process quality. This shows that in-service training has a positive relationship with process quality and overall educators' effectiveness. The finding of the present study also aligns with the finding of Gull et al. (2022), who revealed that there was a positive and moderate effect of in-service teaching training on teachers' job performance. This shows that an increase in teachers' in-service training corresponds with an increase in their job performance, as revealed by the present study. Hence, in line with the previous findings, the present finding provides the basis to conclude that in-service training is a determinant of early childhood educators' effectiveness.

## **5.2. The Predictive Power of Individualised Coaching on Early Childhood Educators' Effectiveness**

The result shows that the correlation coefficient between individualised coaching and early childhood educators' effectiveness is high. By implication, an increase in early childhood educators' individualised coaching corresponds with increased job effectiveness. The high coefficient of determination obtained from the result demonstrated a high percentage variation in early childhood educators' effectiveness that can be attributed to individualised coaching. This shows that individualised coaching is a determinant of early childhood educators' effectiveness. Further analysis of the significance of regression revealed that the predictive power of individualised coaching on early childhood educators' effectiveness is statistically significant. The significance of the predictive power of individualised coaching on early childhood educators' effectiveness may be plausible because, through individualized coaching, early childhood educators may acquire knowledge and skills on the best practices in the field of early child care and education that may boost their effectiveness.

The finding of the present study concerning individualised coaching is in line with previous findings. The finding is in agreement with the finding of Pianta et al. (2017), who found that children demonstrated higher levels of inhibitory control in direct assessments when their teacher had received coaching the prior year. This shows that coaching enhanced the teachers' effectiveness, as revealed by the present study. The study by Desimone and Pak (2017), also revealed a similar finding. The authors revealed that the instructional coaching model presents itself as a powerful tool for improving teacher knowledge, skills, and practice. This shows that individualised coaching is an effective form of professional development. The finding of the present study also aligns with the finding of Kraft et al. (2018), that coaching is an effective professional development tool. This shows that coaching is a potent tool in enhancing teachers' effectiveness, as revealed by the present study. Hence, in line with the previous findings, the present finding provides the basis to conclude that individualised coaching is a determinant of early childhood educators' effectiveness.

### **5.3 The Predictive Power of Workshops on Early Childhood Educators' Effectiveness**

The result shows that the correlation coefficient between workshops and early childhood educators' effectiveness is high. By implication, an increase in early childhood educators' workshop attendance corresponds with increased job effectiveness. The high coefficient of determination associated with the correlation coefficient demonstrated a high percentage variation in early childhood educators' effectiveness that can be attributed to workshops. This shows that workshop is a determinant of early childhood educators' effectiveness. Further analysis of the significance of regression revealed that the predictive power of workshops on early childhood educators' effectiveness is statistically significant. The significance of the predictive power of workshops on early childhood educators' effectiveness may be credible as, through workshops, early childhood educators may acquire knowledge and skills on the best practices in early child care and education that may boost their effectiveness.

The finding of the present study regarding workshops correlates with previous findings. This finding agrees with the early finding of Scull and Kupersmidt (2011), who found that a one-day teacher training workshop on media literacy education is effective at improving teachers' beliefs and knowledge about media literacy that are relevant to successful student outcomes. This shows the efficacy of workshops in enhancing teachers' effectiveness. The study by Yoo (2016), also revealed a similar finding that teacher efficacy increased as a result of their online professional development experience. Egert et al. (2018), found that high pedagogical quality in early childhood education and care (ECCE) is related to developmental outcomes in young children also aligns with the present finding. Hence, in line with the previous findings, the present finding provides the basis to conclude that workshops are a determinant of early childhood educators' effectiveness.

### **5.4 The predictive power of the combination of in-service training, individualised coaching and workshop on early childhood educators' effectiveness**

The result shows that the correlation coefficient among in-service training, individualised coaching, workshops and early childhood educators' effectiveness is very high. By implication, an increase in the combination of early childhood educators' in-service training, individualised coaching, and workshops corresponds with an increase in their job effectiveness. The high coefficient of determination associated with the correlation coefficient demonstrated a high percentage variation in early childhood educators' effectiveness that can be attributed to the combination of in-service training, individualised coaching, and workshops. This shows that the combination of in-service training, individualised coaching, and workshops are a determinant of early childhood educators' effectiveness. Further analysis of the significance of regression revealed that the predictive power of the combination of in-service training, individualised coaching, and workshops on early childhood educators' effectiveness is statistically significant. This finding may be probable

because, through in-service training, individualised coaching, and workshops, early childhood educators may develop and acquire skills on the best practices in the field of early child care and education that may boost their effectiveness.

The findings of the present study are in line with previous findings. The finding is in agreement with the early finding of Scull and Kupersmidt (2011), who found that a one-day teacher training workshop on media literacy education is effective at improving teachers' beliefs and knowledge about media literacy that are relevant to successful student outcomes. This shows that training workshops are valuable in enhancing teachers' effectiveness. The finding is also in agreement with the finding of Pianta et al. (2017), who found that children demonstrated higher levels of inhibitory control in direct assessments when their teacher had received coaching the prior year. According to the authors, teachers who received both coursework and coaching reported in the post-coaching year that children in their classrooms demonstrated greater behavioural control. Egert et al. (2018), found that high pedagogical quality in early childhood education and care (ECCE) is related to developmental outcomes in young children also aligns with the present finding. It can be deduced from Egert et al.'s finding that ECCE educators' professional development through in-service training, individualised coaching and workshops enhances their effectiveness. Hence, in line with the previous findings, the present finding provides the basis to conclude that professional development through in-service training, individualised coaching, and workshops are a determinant of early childhood educators' effectiveness.

## **6. Limitations**

The following are the limitations of the study. First, only the registered community-based ECCE centres on the list obtained from the Free State Department of Education participated in the study. However, during in-person visits to the various communities and centres, researchers found other centres. It was possible that staff at these other centres that did not participate in the study, might have had additional useful perspectives that would have added to the quality of data obtained. Second, the study employs in-service training, individualised coaching and workshops as the forms of professional development. The findings may not accurately reflect the diverse forms of professional development. Finally, the researchers had little control over the participants and their environment during data collection. Factors such as distractions, participant mood, or interpretation of questions may have affected the reliability of the data collected and, in turn, the study's findings.

## **7. Conclusion/Recommendation**

Many studies have investigated the importance of professional development for ECCE educators in South Africa, but little effort has been made to determine the effectiveness of ECCE educators as a result professional development. Again, while policies and programs for the professional development of ECCE educators may exist, it is unclear whether these educators' professional development needs are being satisfied. Based on the study's findings, researchers concluded that professional

development through in-service training, individualised coaching, and workshops respectively are significant determinants of early childhood educators' effectiveness. As a result, early childhood educators should resort to regular professional development to keep pace with the best practices in the field of early childhood care and education as a way of enhancing their job effectiveness. Early childhood educators also need training to have a strong grasp of physical, cognitive, social, and emotional development in early childhood.

## 8. Implication of the Study

The professional development needs of early childhood educators must be met if early childhood education (ECE) is to improve in quality. Numerous research studies have revealed the many implications for the professional development of early childhood educators. Therefore, lawmakers, educational institutions, and other stakeholders must consider these implications while developing and implementing curricula for early childhood education.

As the finding of the study shows that coaching and regular workshops enhanced the effectiveness of early childhood educators, it is imperative to have sufficient funds, resources, and policies that provide access to high-quality professional development for early childhood educators. This implies that early childhood educators might not get the training required to advance their careers if funding is inadequate. Teachers need professional development in inclusive and culturally responsive teaching practices as early childhood classrooms are diverse. The implication is that it will guarantee equal access to education for all children, irrespective of their financial, linguistic, or cultural backgrounds.

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