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## Article

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## MANAGEMENT | RESEARCH ARTICLE

# Self-efficacy of employee trainers: Do differences in background characteristics matter?

Raphael Papa Kweku Andoh<sup>1\*</sup>, Rebecca Dei Mensah<sup>2</sup> and Emmanuel Essandoh<sup>2</sup>

**Abstract:** While the self-efficacy literature reveals that demographic or background characteristics of trainers affect their self-efficacy, the focus is mostly on teachers, pre-service teachers and university professors. The demographics characteristics and employee trainers' self-efficacy have received much less attention. The context-specific nature of self-efficacy implies that findings from the aforementioned studies may not be applicable to the employee trainers' context. Thus, this study examined differences in the background characteristics and self-efficacy of employee trainers. Internal employee trainers from two universities in Ghana provided the data for this study. Analyses of the data were done using Mann-Whitney U and Kruskal Wallis tests. The findings of the study demonstrated that a significant difference existed between the instruction self-efficacy of trainers who had non-terminal degrees and trainers who had terminal degrees. Moreover, differences existed in the trainee engagement self-efficacy and instruction self-efficacy across trainers' experiences. Thus, individuals with experience in training should be the first to be considered when selection for employee trainers is being done. Also, for training topics that are quite complex and advanced, trainers with the most advanced degrees ought to be assigned because they would have high instruction-efficacy that would enable them to successfully accomplish such training tasks.

**Subjects:** Sustainability Education, Training & Leadership; Adult Education and Lifelong Learning; Educational Psychology

**Keywords:** learning and development; human resource development; workplace training; employee trainer; demographics; self-efficacy

## PUBLIC INTEREST STATEMENT

This study sheds light on the differences in the background characteristics of employee trainers and their self-efficacy which is largely absent in the literature as the focus of trainer self-efficacy studies has mainly been on teachers in basic and senior high schools, pre-service teachers and university professors which have fundamental differences in terms of the participants, duration, environment, and purpose of the training. The study concluded that differences in the background characteristics of employee trainers' matter in their self-efficacy to some extent. Level of education matters in the instruction self-efficacy of trainers. Also, experience matters in the trainee engagement and instruction self-efficacies of the trainers. The most advanced degrees, terminal degrees, cause a difference in instruction self-efficacy. Again, trainers with the most experience have the highest trainee engagement self-efficacy and instruction self-efficacy. This study brings attention to trainer self-efficacy as a factor that has the potential to improve training effectiveness.

## 1. Introduction

Training has taken centre stage in employee development and now occupies a strategic position in organisations (Arghode & Wang, 2016; Blume et al., 2010). In the long term, leveraging the knowledge, skills, and attitudes obtained from training is critical for organisations in sustaining their competitive advantage (Hutchins, 2009). Salas et al. (2012) add that organisations are required to continually train their employees to stay competitive. Consequently, there has been a growing interest in training (Salas & Cannon-Bowers, 2001). Billions of dollars are, therefore, invested in employee training across organisations each year (Hughes et al., 2018). Regardless of these investments in training, many organisations remain unsure of the true yield of their increased investment in it (Blume et al., 2010). Burke and Saks (2009) for instance, indicate that transfer of training is poor. As a result, learning and development researchers keep exploring the critical factors for effective training because improving training effectiveness is essential if organisations are to reap the rewards of their training investments (Harris et al., 2014; Ma et al., 2018).

Even though possessing content knowledge and pedagogical competencies should make trainers effective in the performance of their training tasks, it is not enough (Randhawa, 2004). Skilled trainers could still be incapable of effectively performing assigned training tasks. This could result from trainers not being self-efficacious; that is seeing themselves as not being good enough hence, may not believe in having the ability to contribute to the learning of trainees which is very important to the trainees transferring training (Andoh et al., 2022, 2023; Bellibas & Liu, 2017; Nilsson, 2008; Nixon et al., 2013). Trainers' self-efficacy, which is the belief in trainers' capabilities in performing training tasks to enhance trainees' learning, has become a major component of educational research (Hawkman et al., 2019; Ross & Bruce, 2007). Trainers' self-efficacy is not about objectively assessing their skill set, but their beliefs relating to tasks they can perform or cannot perform given a particular context as a result of the belief or otherwise in their capabilities (Kappagoda, 2018; Sarfo et al., 2015).

Tschannen-Moran and Hoy (2001) postulate that the self-efficacy of trainers involves three core dimensions. They include the belief in capabilities of engaging those they train, managing the room training is held and providing instruction which in this study are adapted as training room management, trainee engagement and instruction respectively. In the view of Bellibas and Liu (2017), the training room management dimension of self-efficacy is about the trainer's belief in their ability to regulate the behaviour of trainees, get them to follow instructions, and calm disruptive trainees while in the training room. Trainee engagement self-efficacy shows a trainer's confidence in their abilities to motivate trainees and improve their learning outcomes (Jang et al., 2010) and subsequently, the training outcomes. This could be accomplished through a variety of methods, including convincing trainees and assisting them in their learning goals (Watson & Marschall, 2019). A trainer's instruction self-efficacy deals with their perceptions regarding the ability to perform a training task using varying delivery strategies, asking trainees questions and responding to their questions, and providing clarifications for trainees whenever necessary (Tschannen-Moran & Hoy, 2001). Christensen and Menzel (1998) posit that instruction self-efficacy focuses on enhancing trainees' cognitive abilities.

As important as trainers are in the employee training process, their importance is seldom recognised in the learning and development literature (Ford et al., 2018; Steiner et al., 1991). Training researchers focus on variables such as work environment, training design and trainee characteristics with little attention to trainers (Harris et al., 2014). Hutchins (2009) also adds that even though trainers are heavily involved in the training process, studies seeking their views of training factors are limited. Few studies explore employee training from the perspectives of the trainers with most of the studies originating from trainee reports. It is worth noting that there are different types of trainers. There are those who train people at the lower levels of education (pre-tertiary education) usually referred to as teachers, those who train people at the tertiary level mostly called lecturers, professors, or university teachers, and those who train employees usually called employee trainers. According to Wyatt (2014), all trainers facilitate access to knowledge,

encourage trainees to develop analytical tools, ensure a conducive learning environment, and encourage interactions necessary for learning. However, fundamental differences exist in the way they approach training because of the differences in participants, duration, environment, and purpose of the training. This makes studies that focus on each type of trainers vital.

Even though the self-efficacy literature reveals that demographic characteristics (e.g., gender, education level and experience) of trainers affect their self-efficacy, the focus is mostly on teachers (Ahmad et al., 2015; Aloka & Odanga, 2022; Lazarides et al., 2020; Nejati et al., 2014; Olmez & Ozbas, 2017; Sarfo et al., 2015), pre-service teachers (Acquah & Partey, 2023; Dicke et al., 2014; İnceçay & Keşli Dollar, 2012; Kwarteng et al., 2021; Rosenberg et al., 2021; Slater & Main, 2020) and university professors or teachers (Amirian et al., 2023; Griffioen et al., 2013; Liu et al., 2023; Myrny et al., 2022; Salifu & Odame, 2023). The demographic characteristics and employee trainers' self-efficacy have received much less attention. The context-specific nature of self-efficacy (Asare, 2021; Wang et al., 2017) implies that findings from the aforementioned studies may not be applicable to the employee trainers' context. The paucity of studies on demographic characteristics relative to employee trainers' self-efficacy robs learning and development scholars and practitioners of adequate information needed to enhance training effectiveness. For example, trainers may not be adequately assisted in performing their training tasks of equipping employees with the knowledge, skills, and attitudes during training. The foregoing was the impetus for this study which examined differences in the background characteristics and self-efficacy of employee trainers.

## 2. Theory and hypotheses

### 2.1. Self-efficacy theory

Self-efficacy theory is a psychological framework that affects people's motivation and courses of action to execute specific tasks. In specific terms, it is about people's belief in their capabilities to perform an act (Bandura, 1977, 1994, 1997; Caprara et al., 2013; Ryerson, 2008). From the works of Bandura, self-efficacy develops from four sources. They are mastery experience; vicarious experience; verbal persuasion; and emotional and physiological states. According to mastery experience, when an individual is able to acquire the skills and develop coping mechanisms to master the behaviour requirements to complete a task by successfully completing the task, self-efficacy is developed or enhanced (Gist, 1987; van Rooij et al., 2019). It is the most significant source of self-efficacy since they offer the most reliable indication of whether a person has what it takes to complete a task (Bandura, 1997). Vicarious experience leads to self-efficacy when an individual observes others successfully accomplish a task and or compares themselves to others who have accomplished a task they are to perform (Bandura, 1977, 1997). Self-efficacy is also enhanced via verbal persuasion when an individual through word of mouth is made to believe that they have the capability to perform a task (Appelbaum & Hare, 1996; Bandura, 1977, 1997). The emotional and physiological states of an individual affect their belief in the capability to perform a task in that positive emotions such as enthusiasm and confidence strengthen self-efficacy whereas negative emotions like stress, fear and pain undermine it (Appelbaum & Hare, 1996; Bandura, 1997; Gist, 1987; van Rooij et al., 2019).

### 2.2. Gender of trainers and self-efficacy

The sources of self-efficacy development such as vicarious experiences and verbal persuasions could lead to gender differences in self-efficacy. Regarding vicarious experience, the lack of models to observe and compare capabilities with, in a particular context could lead to differences in the self-efficacies of males and females. For example, if a field is male-dominated, females would find it difficult to get females as models. Again, due to gender stereotyping and socialisation, males could be less-efficacious in performing certain tasks due to the type of persuasion they experience (Bandura, 1997). Regarding trainers, Acquah and Partey (2023) have opined that gender affects how trainers rate their self-efficacy. This is probably because female trainers are more socialised to be caring and nurturing which could make them have a higher self-efficacy in instructional self-

efficacy which is less masculine-oriented as established by Sarfo et al. (2015) and Nejati et al. (2014). Male trainers on the other hand could be more self-efficacious in training room management than female trainers because they are likely to be taught to be dominant and assertive which is required in training room management. Consequently, Klassen and Chiu (2010) and Tok and Tok (2016) revealed in their study that the classroom management self-efficacy of male trainers was better than that of female trainers. Additionally, from the studies of scholars such as Ahmad et al. (2015), Cheung (2006), and Karimvand (2011), it was brought to the fore that female trainers had higher self-efficacy than males. Also, others (e.g., Acquah & Partey, 2023; Adarkwah et al., 2022; Butucha, 2014), found male trainers as being more self-efficacious than their female colleagues. In view of this, it is postulated that:

**H1:** There is a difference in the gender of trainers regarding a) training room management self-efficacy; b) trainee engagement self-efficacy; and c) instruction self-efficacy.

### **2.3. Job category of trainers and self-efficacy**

Mastery experiences are the most significant source of self-efficacy since they offer the most reliable indication of whether a person has what it takes to complete a task (Bandura, 1997). Self-efficacy is enhanced when the successful execution of tasks helps people to develop the knowledge and skills, coping mechanisms, and exposure required to complete future tasks (Gist, 1987). Appelbaum and Hare (1996) add that mastery experience leads to a resilient self-efficacy as individuals overcome obstacles in performing a particular task through perseverance which indicates to them that they have the capabilities to perform the tasks even when they face setbacks. Even though self-efficacy is a psychological phenomenon, with experience, a trainer develops the skills required for training tasks, becomes familiar with the task and obtains positive feedback about training tasks in the past (Wang'eri & Otanga, 2014) which becomes entrenched in their psyche that they have capabilities to execute such and similar tasks. In addition, the results of the study by Alenius et al. (2019) showed that teaching staff reported high self-efficacy beliefs. In this regard, teaching staff for whom lecturing is their primary task and so are regularly in the lecture halls lecturing university students would be more self-efficacious than non-teaching staff whose core function is providing administrative support, thus:

**H2:** There is a difference in the job category of trainers concerning a) training room management self-efficacy; b) trainee engagement self-efficacy; and c) instruction self-efficacy.

### **2.4. Education level of trainers and self-efficacy**

Education is a key factor in improving individuals by equipping them with relevant knowledge and skills (Asamoah Gyimah, 2020; Siddiqui, 2018). People who have higher levels of education normally have more extensive knowledge and skills since completing higher levels of education gives people a broader yet, advanced and in-depth knowledge to make them feel competent generally and specifically, in their area of study. More so, people with higher levels of education are likely to have persisted through their education, been persuaded by knowledgeable and credible colleagues and professors, and would have had numerous models to compare themselves with and learn from (Appelbaum & Hare, 1996; Bandura, 1997; Gist, 1987). In simple terms, trainers with higher levels of education have higher levels of self-efficacy (Orakcı et al., 2023). The empirical literature also indicates that higher levels of education correspond to higher levels of trainer self-efficacy. Orakcı et al. (2023) for instance, showed that differences existed in the level of education and self-efficacy of trainers. They demonstrated that trainers with Doctor of Philosophy degrees had significantly higher self-efficacy than those with master's degrees and those with master's degrees in turn had higher self-efficacy than those with undergraduate degrees. Similarly, Adarkwah et al. (2022) uncovered that the self-efficacy beliefs of trainers with bachelor's and master's degrees were higher than diploma certificate holders. Butucha (2014) made a similar revelation that there were differences in trainers' perceptions of self-



efficacy in instructional strategies and classroom management in terms of their level of education. According to Butucha, bachelor's degree holders believed that they had higher self-efficacy. Salifu and Odame (2023) also found differences in the educational level of university professors with doctorate degree holders performing better than master's degree holders. Based on the foregoing, it is hypothesised that:

**H3:** There is a difference in the education level of trainers regarding a) training room management self-efficacy; b) trainee engagement self-efficacy; and c) instruction self-efficacy.

### **2.5. Qualification of trainers and self-efficacy**

According to OECD (2009), programmes for professional development are activities that help people advance their knowledge, abilities, and other qualities. According to Çetin and Bayrakçı (2019), opportunities for basic knowledge and skills renewal or acquisition in a particular professional or academic area are provided through teacher professional development. Lay et al. (2020) add that teachers in more specialised areas view professional development as a means to obtain knowledge about advances in content, pedagogy, and practices specific to their areas of specialisation. The importance of teacher professional development has led to more advanced degrees for teachers (Yoo, 2016). The foregoing portends that individuals who undergo specialised or professional training are equipped with knowledge and skills and also encounter experiences that enhance their self-efficacy. Studies have demonstrated a relationship between teacher professional development and self-efficacy. For instance, according to the findings of Yoo (2016), professional development courses offered online improved teachers' effectiveness as many of the participants believed that the knowledge they gained from the online professional development opportunity led to their greater teacher efficacy. Results from Tschannen-Moran and McMaster (2009) also showed that the most powerful impact on self-efficacy was had by the professional development model that reinforced mastery experiences. Similarly, the study by Udu et al. (2021) discovered that the professional development programme increased lecturers' knowledge of contemporary technology and teaching self-efficacy. Based on the above, it is hypothesised that:

**H4:** There is a difference in the qualification of trainers concerning a) training room management self-efficacy; b) trainee engagement self-efficacy; and c) instruction self-efficacy.

### **2.6. Experience of trainers and self-efficacy**

Mastery experiences provide the most accurate indication of self-efficacy to execute a task because people acquire the information and abilities, coping strategies, and exposure necessary to execute tasks which increases their self-efficacy (Bandura, 1997; Gist, 1987) as they overcome challenges in executing a particular activity through perseverance. Appelbaum and Hare (1996) add that mastery experience leads to resilience in self-efficacy, demonstrating to them that they have the capabilities to accomplish the activities even when they encounter setbacks. Despite being a psychological phenomenon, with experience, a trainer develops the skills necessary for training tasks, becomes familiar with the task, and receives positive feedback about training tasks in the past, which cements in their minds that they are capable of carrying out such and similar tasks (Wang'eri & Otanga, 2014). Salifu and Odame (2023) also opined that the longevity of training practice is accompanied by accumulated experience and impacts trainers' self-efficacy. Thus, trainers who are relatively inexperienced are likely to have low self-efficacy compared to those who have much experience. According to Adarkwah et al. (2022) and Wang'eri and Otanga (2014), this is stipulated in the literature and the self-efficacy of such trainers increases over time as they perform more training tasks. Empirically, Agormedah et al. (2022) revealed that teaching experience was positively related to efficacy. The study of Cheung (2006) also evinced that years of experience of trainers had a relationship with levels of teacher efficacy. Wang'eri and Otanga (2014) also made a similar revelation. Consequently, it is proposed that:

**H5:** There is a difference in the experience of trainers regarding a) training room management self-efficacy; b) trainee engagement self-efficacy; and c) instruction self-efficacy.

### 3. Methods

#### 3.1. Sample

Internal employee trainers of two universities provided the data for this study after ethical approval was given by the University of Cape Coast Institutional Review Board. Using a census, responses were obtained from teaching staff and non-teaching staff such as lecturers, research fellows, librarians, registrars, auditors, accountants, ICT professionals and health professionals as well as security officers who by virtue of their expertise and experiences are engaged by their respective universities as trainers during employee training programmes although they are not employed primarily as trainers. One hundred and fifty-four employee trainers consented to participate and eventually participated in the study. Females in the sample were 57 (37%) whereas 97 (63%) were males. The teaching staff, comprising lecturers, research fellows and librarians, were 87 (56.5%) while the non-teaching staff, consisting of registrars, auditors, accountants, ICT professionals, health professionals and security officers, numbered 67 (43.5%).

#### 3.2. Measurement of variables

The background characteristics which were used as the independent variables were categorically measured. Gender consisted of two groups; females and males. As earlier indicated, the job category of trainers consisted of two broad categories; teaching staff who were made up of lecturers, research fellows and librarians; and administrators designated as non-teaching staff (made up of registrars, auditors, accountants, ICT professionals, health professionals and security officers). The level of education also, was made up of two categories. The two categories were non-terminal degree holders (i.e., trainers whose level of education was below a doctorate degree) and terminal degree holders (i.e., trainers with doctorate degree). Concerning trainer qualification, the measurement was based on three groups. There was a group without any education qualification (not trained as teachers), a group with train-the-trainer qualification, and a group who were trained teachers (i.e., trainers with qualifications including a diploma in education, Bachelor of Education and master's degree in education). Last but not least is trainer experience. Trainer experience was measured as follows; trainers with a low level of experience (trainers who had facilitated five or fewer training sessions), trainers with an intermediate level of experience (trainers who had facilitated between six to 10 training sessions) and trainers with a high level of experience (trainers who had facilitated more than 10 training sessions).

The dependent variable was trainer self-efficacy which consisted of three dimensions. The three dimensions of trainer self-efficacy and their measures were adapted from the longer version of the Teachers' Sense of Efficacy Scale that was developed by Tschannen-Moran and Hoy (2001). Classroom management self-efficacy and student engagement self-efficacy were adapted as training room management self-efficacy and trainee engagement self-efficacy respectively. The variable name, instruction self-efficacy was, however, maintained. Training room management self-efficacy and instruction self-efficacy consisted of eight measures while trainee engagement self-efficacy consisted of seven measures. Examples of the measures are; "I can do much to control disruptive behaviour in the training room" (training room management self-efficacy); "I can do much to motivate trainees who show low interest in training" (trainee engagement self-efficacy); and "I can respond well to difficult questions from trainees" (instruction self-efficacy). Measurement of all the dimensions was done using a five-point Likert-type scale with 1 being the lowest (strong disagreement) and 5 being the highest (strong agreement).

#### 3.3. Data processing and analyses

The data collected subject to the approval of the University of Cape Coast Institutional Review Board were processed using SPSS. Preliminary analyses were performed to ascertain the reliability and validity of the variables. Cronbach's alpha was used to ascertain the reliability of the variables



while Pearson product-moment coefficient ( $r$ ) was used to ascertain the validity. To determine whether parametric or non-parametric tests were to be employed in the main analyses, a normality test based on the Kolmogorov-Smirnov test was carried out. The results of the normality test led to analysing the data using Mann-Whitney U tests (hypotheses with binary categorical independent variables) and Kruskal Wallis tests (hypotheses with polychotomous categorical independent variables) because normality was violated. Post-hoc analyses using Mann-Whitney U tests were carried out between pairs of the groups in cases where the Kruskal Wallis test yielded statistically significant findings. Since three comparisons of two distinct groups were made, a Bonferroni adjustment to the alpha values was made to account for Type 1 errors, using .017 ( $=.05/3$ ) as the significant level. Additionally, effect sizes were calculated (Ofori & Dampson, 2011; Pallant, 2010).

## 4. Results

### 4.1. Preliminary results

The variables in Table 1 have a high reliability, according to the Cronbach's alpha for those variables (Cohen et al., 2007). As each variable correlated with each of its measures at  $p$ -value of .01, the validity of the variables was also confirmed. Furthermore, each variable's correlation value was above the critical  $r$  value of .158 at significance level of .05. The critical value was obtained from the formula,  $DF = n - 2$  ( $DF$  = degrees of freedom;  $n$  = number of respondents).

### 4.2. Main results

The results of the Mann-Whitney U test performed to examine the differences in trainer self-efficacy across their gender are presented in Table 2. It is revealed from the table that no statistically significant difference occurred in the training room management self-efficacy of female and male trainers; trainee engagement self-efficacy of female and male trainers; and instruction self-efficacy of female and male trainers considering the  $p$ -values of .670; .404; and .522 respectively. There was, therefore, insufficient evidence not to reject the hypotheses that differences existed in the training room management self-efficacy (H1a), trainee engagement self-efficacy (H1b), and instruction self-efficacy (H1c) of female and male trainers. Table 3 also displays the Mann-Whitney U test performed to examine the difference in trainer self-efficacy across their job categories. From the table, it is shown with  $p$ -values of .662; .894; and .767 that there is no statistically significant difference in the training room management self-efficacy of teaching and non-teaching staff; trainee engagement self-efficacy of teaching and non-teaching staff; and instruction self-efficacy of teaching and non-teaching staff respectively. Thus, there was not enough evidence not to reject H2a, H2b and H2c.

In Table 4, a presentation of the results of the Mann-Whitney U test performed to examine the difference in trainer self-efficacy across their level of education is made. According to the table, there is no statistically significant difference in the training room management self-efficacy of non-terminal degree holders and terminal degree holders ( $p = .083$ ) as well as trainee engagement self-efficacy of non-terminal degree holders and terminal degree holders ( $p = .094$ ). In this regard, insufficient evidence was found not to reject H3a (there is a difference in the education level of trainers in terms of training room management self-efficacy) and H3b (there is a difference in the education level of trainers in terms of trainee engagement self-efficacy). However, a statistically

**Table 1. Reliability of variables**

Variable	Cronbach's alpha	N of Measures
Training room management self-efficacy	.859	8
Trainee engagement self-efficacy	.854	7
Instruction self-efficacy	.876	8

Table 2. Gender and employee trainers' self-efficacy																			
		Training Room Management Self-efficacy						Trainee Engagement Self-efficacy						Instruction Self-efficacy					
Gender	N	Md R	$\bar{X}$ R	U	W	Z	Sig.	Md R	$\bar{X}$ R	U	W	Z	Sig.	Md R	$\bar{X}$ R	U	W	Z	Sig.
Female	57	32	75.51	2651	4304	-.426	.670	29	73.61	2542.5	4195.5	-.834	.404	34	74.51	2594	4247	-.640	.522
Male	97	34	78.67					30	79.79					34	79.26				
Total	154	33						29						34					

Notes: N = Number; Md R = Median Rank;  $\bar{X}$  R = Mean Rank; U = Mann-Whitney U; W = Wilcoxon; Z = Z score; Sig = Significance ( $p < .05^{**}$ ; 2-tailed); r = effect size.

significant difference existed in the instruction self-efficacy of trainers with those who had non-terminal degrees having a lower median rank ( $Md = 34$ ;  $N = 107$ ) than trainers who had terminal degrees ( $Md = 36$ ;  $N = 47$ ),  $U = 1904$ ,  $Z = -2.403$ ,  $p < .05$ . As a result, there was enough evidence not to reject H3c which was a postulation that there is a difference in the education level of trainers in terms of instruction self-efficacy. The size of the effect ( $r = .19$ ) is small.

Table 5 is a presentation of the Kruskal-Wallis test meant to examine the difference in self-efficacy of trainers across the trainer qualifications held. It is depicted from the table that there was no significant difference among trainers without education qualification, those with train-the-trainer qualification, and those trained as teachers in terms of training room management self-efficacy ( $p = .484$ ), trainee engagement self-efficacy ( $p = .197$ ), and instruction self-efficacy ( $p = .468$ ). Therefore, insufficient evidence existed not to reject H4a, H4b, and H4c. The results of the Kruskal-Wallis test regarding the difference in trainers' experience in terms of their self-efficacy are shown in Table 6. It is indicated in the table that no significant difference existed among trainers' experience (Group 1,  $N = 47$ : Low level of experience; Group 2,  $N = 54$ : Intermediate level of experience; Group 3,  $N = 53$ : High level of experience) and training room management self-efficacy ( $p = .090$ ). Thus, insufficient evidence existed not to reject H5a. On the contrary, enough evidence existed not to reject H5b and H5c since a significant difference existed among the three groups in relation to trainee engagement self-efficacy ( $\chi^2 [2, n = 154] = 9.436$ ,  $p < .05$ ) and instruction self-efficacy ( $\chi^2 [2, n = 154] = 8.902$ ,  $p < .05$ ). Specifically, in terms of the difference in trainee engagement self-efficacy and instruction self-efficacy, the trainers who had high level of training experience performed best with a median rank of 30 and 36 respectively. The post hoc (Mann-Whitney U) test that was subsequently performed using the Bonferroni adjustment to the alpha values yielded effect size of small relative to both trainee engagement self-efficacy ( $r = .24$ ) and instruction self-efficacy ( $r = .25$ ).

## 5. Discussion

This study examined the differences in employee trainers' background characteristics such as gender, job category, level of education, trainer qualification, and trainer experience across three trainer self-efficacy dimensions (training room management self-efficacy, trainee engagement self-efficacy, and instruction self-efficacy). The findings of the study demonstrated that there is no significant difference in female and male employee trainers in terms of training room management self-efficacy, trainee engagement self-efficacy, and instruction self-efficacy. This was contrary to our expectations since males did not perform better than females as demonstrated by Acquah and Partey (2023), Adarkwah et al. (2022), and Butucha (2014) nor did females perform better than males as in the studies of Ahmad et al. (2015), Cheung (2006), and Karimvand (2011). Consequently, differences in specific trainer self-efficacies as discovered by Sarfo et al. (2015), Klassen and Chiu (2010), Tok and Tok (2016), and Nejati et al. (2014) were non-existent as there were no differences in gender and each of the three dimensions of trainer self-efficacy. This is contrary to the belief that gender affects trainers' self-efficacy (Acquah & Partey, 2023). The non-existent differences in gender and trainer self-efficacy could be because, in higher education institutions, gender stereotyping and socialisation is not prominent. There could also be enough models for both male and female trainers to look up to in order to boost their self-efficacy.

Again, it was demonstrated that trainers who are teaching staff and those who are non-teaching staff do not significantly differ in terms of training room management self-efficacy, trainee engagement self-efficacy, and instruction self-efficacy, unlike the results of the study of Alenius et al. (2019) which evinced high self-efficacy among teaching staff. A probable explanation for the lack of differences in the self-efficacy of teaching and non-teaching staff is that both groups of trainers are engaged in some of university teaching. While the teaching staff are fulltime lecturers, the non-teaching staff are in most cases contracted as part-time lecturers and so both groups have mastery experiences relative to training university students. Similarly, there was no difference in training room management self-efficacy and trainee engagement self-efficacy between trainers with non-terminal degrees and trainers with

Table 3. Job category and employee trainers' self-efficacy																			
Job category	N	Training Room Management Self-efficacy						Trainee Engagement Self-efficacy						Instruction Self-efficacy					
		Md R	$\bar{X}$ R	U	W	Z	Sig.	Md R	$\bar{X}$ R	U	W	Z	Sig.	Md R	$\bar{X}$ R	U	W	Z	Sig.
Teaching staff	87	33	76.13	2795	6623	-.437	.662	29	77.92	2878	5156	-.134	.894	34	76.57	2833.5	6661.5	-.296	.767
Non-teaching staff	67	33	79.28					29	76.96					34	78.71				
Total	154	33						29						34					

Notes: N = Number; Md R = Median Rank;  $\bar{X}$  R = Mean Rank; U = Mann-Whitney U; W = Wilcoxon; Z = Z score; Sig = Significance ( $p < .05^{**}$ ; 2-tailed); r = effect size.

terminal degrees. However, a significant difference existed between the instruction self-efficacy of trainers who had non-terminal degrees and trainers who had terminal degrees with better performance coming from trainers with terminal degrees. The difference is consistent with the findings of Adarkwah et al. (2022) and Butucha (2014) who found trainers with higher levels of education to be of higher self-efficacy. Particularly, this was in line with the studies of Orakcı et al. (2023) and Salifu and Odame (2023) because they discovered that trainers with doctorate degrees had significantly higher self-efficacy in instructional self-efficacy than those without doctorate degrees.

Additionally, this study evinced that there is no difference in training room management self-efficacy, trainee engagement self-efficacy, and instruction self-efficacy across the three trainer qualification groups (trainers without trainer qualification, trainers with train-the-trainer qualification, and trainers who are trained teachers). This is contrary to what was expected, as the literature (e.g., Tschannen-Moran & McMaster, 2009; Udu et al., 2021; Yoo, 2016) has established that people who receive specialised education for a profession tend to have a higher self-efficacy. For trainers, specialised training for professional development is a means to obtain knowledge about advances in content, pedagogy, and practices specific to their areas of specialisation (Lay et al., 2020). It is important to note that in the institutions where the study was carried out, the expertise of the trainers irrespective of the qualification held (trained teacher, train-the-trainer, or without education qualification) is the basis for their selection as trainers. Thus, for those without education qualifications, it is possible that they would have had mastery experiences from previous training tasks resulting in no difference across the trainer qualification and the self-efficacy dimensions. More so, no difference was found in training room management self-efficacy across trainer experience. On the contrary, differences existed in the trainee engagement self-efficacy and instruction self-efficacy across trainers with low levels of training experience, intermediate levels of training experience and high levels of training experience. In both instances, trainers with a high level of training experience were the high performers. The findings reflect the revelations made by Adarkwah et al. (2022), Agormedah et al. (2022), Cheung (2006), Salifu and Odame (2023), and Wang'eri and Otanga (2014).

## 6. Implications

The findings made in this study are consistent with the self-efficacy theory. More specifically, it provides support for mastery experience as the most important source of self-efficacy (Bandura, 1997). This is shown by the fact that there were no differences in the self-efficacy of trainers relative to their job category (teaching staff and non-teaching staff) and trainer qualification (no education qualification, train-the-trainer, and trained teacher) because all the trainers in each of the subgroups were involved in teaching university students (either as full time or part-time lecturers) hence, had some form of teaching experience which could be said to have an influence on their self-efficacy as employee trainers. This is made more explicit with the differences that existed in the trainer experience and trainer self-efficacy particularly, with regards to trainee engagement and instruction self-efficacies where the differences emanated from the most experienced trainers. The foregoing is a testament to the assertion that self-efficacy is enhanced when people develop the knowledge and skills, coping mechanisms, and exposure required to complete tasks as it makes them resilient in overcoming obstacles to performance (Appelbaum & Hare, 1996; Gist, 1987). Further, differences in trainee engagement and instruction self-efficacies as shown by the most experienced trainers is a confirmation of the assertion of Watson and Marschall (2019) that the development of trainee engagement self-efficacy and instruction self-efficacy of trainers are associated with experience. Level of education is also important in the self-efficacy of trainers especially in terms of the most advanced form of education and the most difficult and last trainer self-efficacy dimension to obtain i.e., instruction self-efficacy (Watson & Marschall, 2019).

Practically, this study highlights that employee training experience is critical in the self-efficacy of trainers. As stipulated by Agormedah et al. (2022) and in line with Bandura (1997), organisations should draw on training experience to improve the self-efficacy of their employee trainers. Individuals irrespective of their gender, job category and trainer qualification could be selected

Table 4. Level of education and employee trainers' self-efficacy																
Level of education	N	Training Room Management Self-efficacy					Trainee Engagement Self-efficacy					Instruction Self-efficacy				
		Md R	$\bar{X}$ R	U	W	Z	Sig.	Md R	$\bar{X}$ R	U	W	Z	Sig.	Md R	$\bar{X}$ R	r
Non-terminal degree	107	33	73.39	2074.5	7852.5	-1.731	.083	29	73.53	2090	7868	-1.673	.094	34	71.79	.19
Terminal degree**	47	34	86.86					30	86.53					36	90.49	
Total	154	33						29						34		

Notes: N = Number; Md R = Median Rank;  $\bar{X}$  R = Mean Rank; U = Mann-Whitney U; W = Wilcoxon; Z = Z score; Sig = Significance ( $p < .05^{**}$ ; 2-tailed); r = effect size.



Table 5. Trainer qualification and employee trainers' self-efficacy																	
Trainer Qualification		N	Training Room Management Self-efficacy					Trainee Engagement Self-efficacy					Instruction Self-efficacy				
			Md R	$\bar{X}$ R	$\chi^2$	df	Sig.	Md R	$\bar{X}$ R	$\chi^2$	df	Sig.	Md R	$\bar{X}$ R	$\chi^2$	df	Sig.
No education qualification		26	31.5	68.46	1.453	2	.484	30	85.54	3.251	2	.197	34	75.08	1.519	2	.468
Train-the-trainer		58	34	77.60				30	82.30				34	72.84			
Trained teacher		70	33	80.77				29	70.54				35	82.26			
<b>Total</b>		154	<b>33</b>					<b>29</b>					<b>34</b>				

Notes: N = Number; Md R = Median Rank;  $\bar{X}$  R = Mean Rank;  $\chi^2$  = Chi-Square; df = degree of freedom; Sig = Significance ( $p < .05^{**}$ ; 2-tailed);  $r$  = effect size.

Table 6. Trainer experience and employee trainers' self-efficacy																		
Trainer Experience	N	Training Room Management Self-efficacy					Trainee Engagement Self-efficacy					Instruction Self-efficacy						
		Md R	$\bar{X}$ R	$\chi^2$	df	Sig.	Md R	$\bar{X}$ R	$\chi^2$	df	Sig.	r	Md R	$\bar{X}$ R	$\chi^2$	df	Sig.	r
Low	47	32	70.39	4.820	2	.090	29	68.26	9.436	2	.009**	.24	34	69.95	8.902	2	.012**	.25
Intermediate	54	32.5	73.13				29	70.71					33	69.59				
High**	53	34	88.25				30	92.61					36	92.25				
Total	154	33					29						34					

Notes: N = Number; Md R = Median Rank;  $\bar{X}$  R = Mean Rank;  $\chi^2$  = Chi-Square; df = degree of freedom; Sig = Significance ( $p < .05^{**}$ ; 2-tailed); r = effect size.

as employee trainers since there are no differences in the gender, job category and trainer qualification, across the self-efficacy of trainers. However, individuals with experience in training should be the foremost options to be considered and subsequently selected for employee training programmes. In this regard, those with more experience should be selected ahead of individuals with less experience because those with more experience would be more efficacious which would most likely enable them to successfully execute training tasks. Moreover, since trainers with terminal degrees are the most efficacious when it comes to instruction self-efficacy, for training topics that are quite complex and advanced, trainers with the most advanced degrees ought to be assigned because they would have high instruction-efficacy that would enable them to successfully accomplish such training tasks.

## 7. Conclusions

This study sheds light on the differences in the background characteristics of employee trainers and their self-efficacy which is largely absent in the literature as the focus of trainer self-efficacy studies has mainly been on teachers in basic and senior high schools, pre-service teachers and university professors. The study concludes that differences in the background characteristics of employee trainers' matter in their self-efficacy to some extent. Level of education matters in the instruction self-efficacy of trainers. Also, experience matters in the trainee engagement and instruction self-efficacies of the trainers. The most advanced degrees, terminal degrees, cause a difference in instruction self-efficacy. Again, trainers with the most experience have the highest trainee engagement self-efficacy and instruction self-efficacy. This study brings attention to trainer self-efficacy as a factor that has the potential to improve training effectiveness.

## 8. Limitations and direction for future studies

The study was conducted in higher education environments where university teaching is an everyday activity. This could have influenced the responses as the respondents, who were internal trainers, were familiar with training activities through mastery experiences, vicarious learning and verbal persuasion. In the future, studies should be conducted in typical corporate environments. Further, the trained teacher group of the trainer qualification category had numerous levels of teacher qualifications lumped as one. Future studies should be conducted where the number of teacher qualifications held by respondents would be used as a basis for grouping since there could be differences in the self-efficacy of trainers with only trainer qualification such as a diploma and those with two like a Bachelor of Education and master's in education.

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The dataset for this study is available upon reasonable request.

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