

Evaluation of Student-Teachers Pedagogical Preparation for Inclusive Physical Education Practical Teaching in Ghana: Lecturers Perspective

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Abstract

The purpose of this study was to evaluate lecturers' opinions about the university physical education student-teachers' pedagogical preparation for inclusive practical teaching. 15 lecturers who were purposively selected from two universities in Ghana formed the sample size. A researcher designed closed ended questionnaire was used to collect the data. Data was analysed using descriptive statistics of means and standard deviations with results presented in tables and graphs. The study's findings revealed a concerning trend in the pedagogical preparation of student-teachers for inclusive Physical Education (PE) in Ghanaian Universities. A significant proportion of practical course lecturers (46.7%) believed that student-teachers are not adequately equipped to adapt equipment for inclusive PE, suggesting a gap in the preparatory programme in the universities. Furthermore, majority of the practical course lecturers (53.3%) rarely provided student-teachers with alternative instructional strategies and adaptation skills for inclusive practical PE. This oversight is compounded by the fact that most lecturers (73.3%) felt that the pedagogy they provide was insufficient for student-teachers to successfully include Students with Disabilities (SWDs) in their practical PE lessons. The study recommends that critical measures should be taken by the two universities to revamp their training programs to ensure student-teachers are well prepared to adapt equipment and instructional strategies for inclusive PE teaching.

Keywords

Inclusive, Teacher Preparation, Pedagogy, Instructional Strategies, Students with Disabilities Etc.

1. Introduction

The importance of teacher education in the development of every nation's educational system cannot be overstated. Globally, teacher education is viewed as a crucial aspect of education (Adeosun et al., 2009), and in Ghana, it is considered essential for producing competent and expert educators who can cater to the needs of all students, including those with disabilities (Republic of Ghana, 2002). Teacher education (TE) encompasses the procedures and policies designed to furnish teachers with the skills, attitudes, knowledge, and behavior required to execute their tasks effectively in school and all classroom settings (Nketsia et al., 2016). In Ghana, universities play a vital role in preparing student-teachers for the teaching of all subjects in senior high schools, including physical education based on the inclusive teacher preparation policies (Ministry of Education, 2015: p. 11). The education sector globally is shifting towards inclusive approaches to mitigate limitations witnessed in specialized schools. This shift towards inclusivity emphasizes the need for equipping student-teachers with inclusive methods and approaches to maximize the benefits of inclusive physical education teaching (Boaduo et al., 2011, Darko et al., 2022). However, concerns have been raised about the adequacy of the preparation programmes in universities for inclusive teaching.

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2013), inclusive education is a fundamental right of all learners, and teacher education is critical to achieving this goal. In Ghana, the Ministry of Education has emphasized the importance of inclusive education and inclusive teacher preparation (Ministry of Education, 2015). Ghana's Inclusive Education Policy also emphasizes the importance of creating an education system that is responsive to learner diversity and ensures that all learners have the best possible opportunities to learn (GES, 2014).

Moreover, the sustainable development goal (SDG) 4, which Ghana has adopted, calls for ensuring inclusive and equitable quality education and the provision of life-long learning prospects for all. Hence, teacher educators are crucial to the implementation of this policy, as they facilitate the formal education of student-teachers and play a vital role in assisting the enactment of inclusive education (European Commission, 2010; Forlin et al., 2014).

Nevertheless, Boyd et al. (2011) identified the main priorities for TE induction as developing pedagogical knowledge and practice appropriate to teaching student-teachers in higher education settings. Hence, lecturers teaching in physical education teacher education (PETE) programmes need to systematically review their curricula in reference to the ultimate programme goal of preparing competent PE teachers who will be able to teach all students within a contemporary school environment (Block et al., 2013). Ingersoll et al. (2012) also believe that knowing how to teach is of primary importance to becoming a competent teacher. This includes, but is not limited to, preparation in the areas of coursework in teaching methods, teaching practice, preparation in how to choose and adapt instructional materials, learning theories of child psychology, opportunities to wit-

ness others teaching, and official feedback on their personal teaching (Ingersoll et al., 2012).

However, research has shown that many teacher education programmes lack a strong focus on inclusive physical education, leaving student-teachers unprepared to teach in inclusive physical education settings (Darko et al., 2021; Sato & Haegele, 2017). Furthermore, the implementation of the inclusive education teacher preparation policy in Ghana seems to have materialized in other subject areas but has been overlooked in the case of physical education teacher preparation.

Also, research on the pedagogical preparedness of student-teachers for inclusive teaching in Ghana has been limited to colleges of education (Opoku et al., 2015; Mprah et al., 2016) and has not focused on physical education and the universities. This study aims to address this gap by evaluating the pedagogical preparedness of future PE teachers for successful inclusion in practical PE from the views of university lecturers.

The objectives of this study are to evaluate lecturers' opinions about the pedagogical preparedness of student-teachers for inclusive physical education teaching based on the preparation programme and to evaluate lecturers' opinions about the adequacy of the current curriculum in preparing student-teachers for inclusive physical education practical teaching in terms of pedagogy.

2. Methodology

This study employed a descriptive survey approach. This approach involved collecting data that describe the state, form, and magnitude of a phenomenon at a point in time (Knight, 2016). All lecturers from the two universities who taught practical courses were included in this study. The two universities had 9 and 14 lecturers (both full-time and part-time), respectively. Of these, 15 lecturers taught practical courses. All lecturers who had taught practical courses to the 2018/2019 level 300 student-teachers' group were purposively selected and included in this study.

The researcher developed a questionnaire with 3 - 4 point Likert-type open-ended items. The design of the items on the instrument was guided by the literature reviewed on PE teacher education. This questionnaire set was completed by the 15 practical course lecturers. It sought their views on the pedagogical preparedness of student-teachers for inclusive practical physical education teaching, specifically how they trained them (pedagogy—instructional strategies and adaptations) and how they rated the general preparation programme in the university in terms of pedagogy.

The questionnaire was pretested on four lecturers who were not part of the study sample. After pretesting, corrections were made to the instrument before it was used for data collection. The questionnaire yielded a reliability coefficient of $\alpha = 0.71$. After identifying lecturers who met the inclusion criteria for this study, the researcher approached them individually, established data collection protocols, and administered the questionnaire. The questionnaire, along with consent

forms, was attached and sealed in an envelope and distributed to each lecturer personally. Some lecturers filled out the questionnaire immediately and returned it to the researcher, while others completed it later and returned it. The overall return rate of the questionnaire was 100%.

3. Results

Table 1 showed that the study involved 15 practical course lecturers with 7 coming from university one (U1) and 8 from university two (U2). It further indicates that 13 (86.7%) of the lecturers were male while 2 (13.3%) were females. This shows that male practical course lecturers formed the majority of the study participants. With regards to the practical course lecturers teaching experience in the university, it was found that majority 7 (46.7%) of the lecturers have been teaching various practical courses between the time frame of 5 to 10 years, 3 (20%) said 11 - 15 years, 3 (20%) also indicated 16 and above years while those with the least teaching experience stated 1 - 4 years, representing 2 (13.3%). Also, the results revealed that majority of the lecturers have been teaching various practical courses for the past 5 - 10 yrs in the universities. Teaching experience becomes predominant and preminent when lecturers continuously practice the profession. This suggests that experience and pedagogical skills in teaching is one of the key elements that portray one's competence in the art and science of guiding and leading other educators to acquire pedagogical knowledge, skills and competence.

Table 1. Demographic characteristics of the study participants.

Lecturers	Institutions				Total
	U1	N = 7	U2	N = 8	
Gender	F	%	F	%	
Male	6	85.7	7	87.5	13 (86.7%)
Female	1	14.3	1	12.5	2 (13.3%)
Lecturing Experience					
1 - 4 years	1	14.3	1	12.5	2 (13.3%)
5 - 10 years	4	57.1	3	37.5	7 (46.7%)
11 - 15 years	1	14.3	2	25	3 (20%)
16 and above	1	14.3	2	25	3 (20%)

Abbreviations: N—Total Number.

3.1. Understanding of the Meaning of Inclusion and Inclusive PE by Lecturers

The study also explored practical course lecturers' understanding of inclusion and inclusive Physical Education (PE), as well as their ability to visualize the inclusion process. As shown in **Table 2**, the lecturers demonstrated a high level of understanding regarding inclusion education (mean = 4.00) and inclusive PE (mean = 4.13). However, three lecturers (20.0%) reported having limited knowledge and

understanding of inclusion and inclusive PE. This suggests that the majority of lecturers possess adequate knowledge and understanding of inclusion and inclusive PE. Given the lecturers' perceived knowledge and understanding of inclusion, it is likely that incorporating inclusivity in practical PE will be feasible.

Table 2. Practical course lecturers' responses to inclusive knowledge and understanding.

Items	N	Frequency/Percentage		Mean	SD
		Quite Little	Quite Much		
1. How much do you know and understand inclusive education?	15	3 (20.0%)	12 (80.0%)	4.00	1.13
2. How much do you know and understand inclusive PE?	15	3 (20.0%)	12 (80.0%)	4.13	1.18

Abbreviations: N—Number of Participants, SD—Standard deviation.

From **Figure 1**, lecturers responded in the affirmative that they sensitized student-teachers on how to teach similar skills in practical PE in inclusive settings. 8 (53.3%) said often, 3 (20%) said very often while 4 (26.7%) said not often.

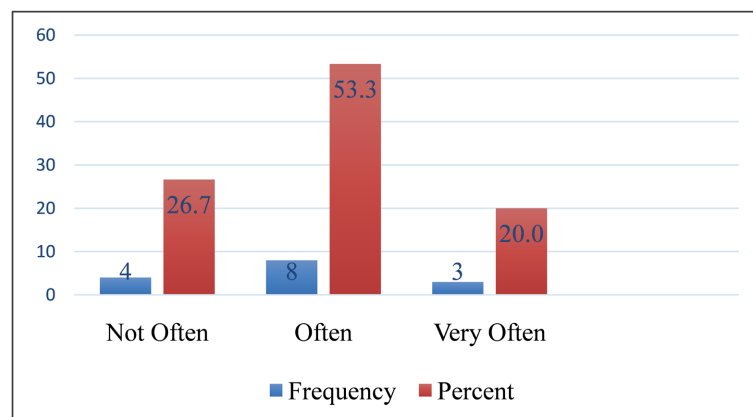


Figure 1. How often lecturers sensitize student-teachers on how to teach similar skills in an inclusive setting.

3.2. Instructional Strategies and Adaptations Skills for Teaching in an Inclusive Setting Given to Student-Teachers by Lecturers

Lecturers were asked whether they give student-teachers' alternative instructional strategies and adaptations for inclusive teaching. From **Figure 2**, majority 8 (53.3%) of the lecturers responded that they don't often give student-teachers' alternative instructional strategies and adaptation skills for inclusive practical PE. Six (40%) said they often give alternative instructional strategies while 1 (6.7%) reported giving alternative instructional strategies and adaptation skills for inclusion very often. This implied that student-teachers were not exposed to and may not be aware of alternative instructional skills for most of the practical skills they experience in the universities and this can lead to their inability to apply alternative instructional skills in an inclusive setting. **Figure 2** displays their responses.

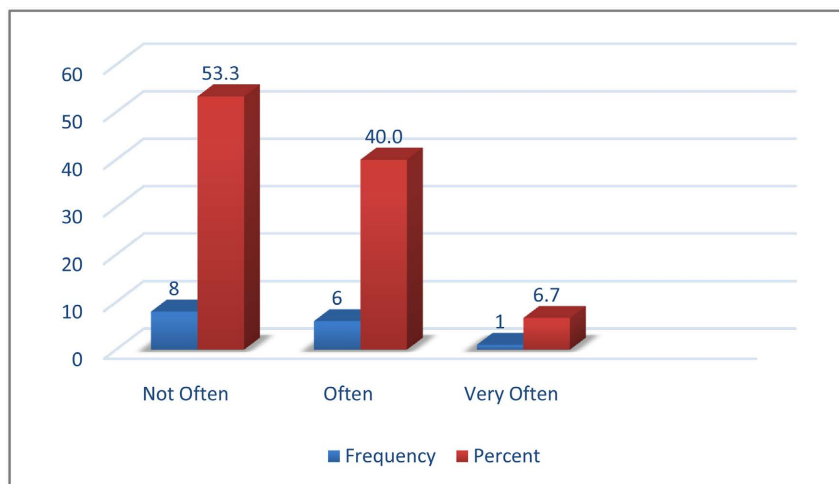


Figure 2. Lecturers' response to giving student-teachers' alternative instructional strategies and adaptations for teaching in an inclusive PE setting.

3.3. Lecturers' Opinions on Student-Teachers' Preparedness to Adapt Instructional Strategies for Inclusive Practical PE

Opinions were quite divided when lecturers were asked to rate the preparedness of student-teachers to adapt instructional strategies to include SWDs in PE practical lessons. Quite a high number of the lecturers, 7 (46.7%) indicated that they think student-teachers are not well prepared based on the department preparation programme. Meanwhile, a closer number of 6 (40%) were also of the view that student-teachers are somewhat prepared to adapt instructional strategies for effective inclusion of SWDs in practical PE lessons. Two (13.3%) of the lecturers were not certain. This implied that lecturers see a pitfall in the preparation programme and as such, perceived student-teachers have not been trained well enough to adapt instructional strategies. This might be due to their inability to give student-teachers' alternative instructional strategies for inclusive practical PE teaching. **Table 3** presents their responses.

Table 3. Lecturers' responses to student-teachers' preparedness to adapt instructional strategies for inclusive practical PE.

Responses	Frequency	Percent (%)
Not Well Prepared	7	46.7
Uncertain	2	13.3
Somewhat Prepared	6	40.0
Total	15	100.0

3.4. Lecturers' Opinions on Student-Teachers' Preparedness to Adapt Equipment for Inclusive Practical PE Teaching

Lecturers were further asked to rate the preparedness of student-teachers to adapt equipment for skill teaching in their practical course area in an inclusive setting. From **Table 4**, six (40.0%) of the lecturers were of the view that student-teachers

are not well prepared to adapt equipment for inclusive practical PE teaching. Two (13.3%) were uncertain, while 5 (33.3%) responded somehow prepared. However, 2 (13.3) were of the view that student-teachers are very well prepared to adapt equipment to suit SWDs in inclusive practical PE. This implied that lecturers perceived inability of student-teachers' to adapt equipment for inclusive PE teaching.

Table 4. Lecturers' responses to student-teachers' preparedness to adapt equipment for inclusive practical PE.

Responses	Frequency	Percent
Not Well Prepared	6	40.0
Uncertain	2	13.3
Somewhat Prepared	5	33.3
Very Well Prepared	2	13.3
Total	15	100.0

3.5. Lecturers' Responses to the Preparedness of Student-Teachers' to Effectively Include SWDs in their Practical Courses

Lecturers were asked whether they think student-teachers are adequately prepared in their practical course for them to effectively include SWDs in practical lessons. Though lecturers indicated that they sensitize and give student-teachers alternative instructional strategies and adaptation skills for the inclusion of SWDs, however, their responses to the preparedness of student-teachers to practically include SWDs in their practical course area were negative. Five (33.3%) said "Yes" while 10 (66.7%) responded that student-teachers are not prepared to handle their practical course in an inclusive setting. Their responses are displayed in **Figure 3**.

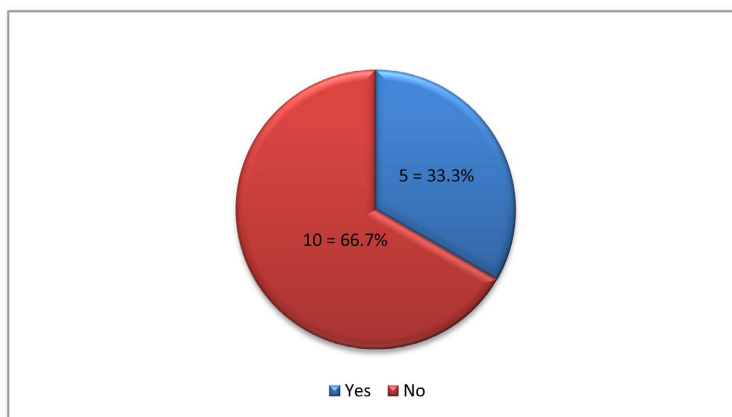


Figure 3. Lecturers' responses to the preparedness of student-teachers to effectively include SWDs in their specific practical courses.

3.6. Adequacy of Pedagogy in the Preparation Programme: Practical Course Lecturers' Perspectives

The study sought the university practical course lecturers to evaluate the adequacy of pedagogy in the preparation programme for student-teachers towards achiev-

ing inclusive practical PE. **Figure 4** depicts that most of the lecturers, 11 (73.3%) believed the pedagogy they gave was inadequate for student-teachers to be able to successfully include SWDs in their practical PE lessons. Similarly, 2 (13.3%) perceived the pedagogy to be very inadequate while 2 (13.3%) also shared the view that the pedagogy was adequate. This implied that the pedagogy in the preparation programme in the university must be looked into so far as the teaching of practical PE in inclusive setting is concerned. This would help to improve the programme where there is a key component for inclusion missing for it to be adequate for inclusive practical PE teaching.

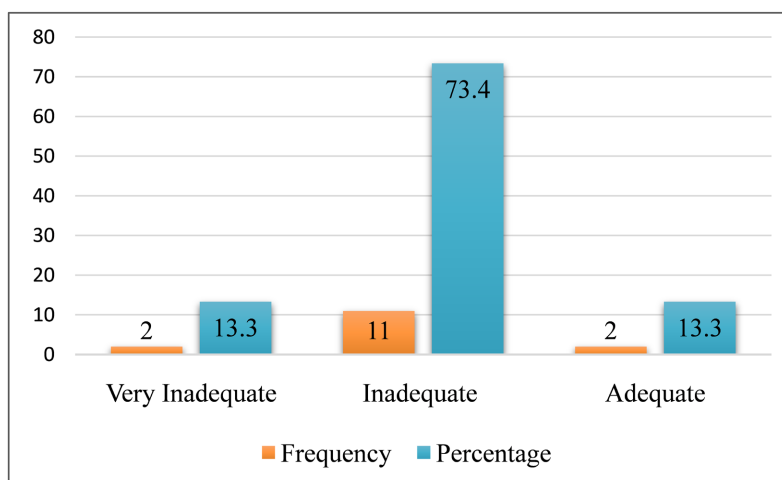


Figure 4. Lecturers' opinions on the adequacy of pedagogy in the university's preparatory programme for inclusive practical PE.

4. Discussion

From the results, the lecturers reported having adequate knowledge in inclusive education and inclusive PE, with high mean scores. They also admitted that they can visualise the inclusion process. This is consistent with [Flintoff & Fitzgerald \(2012\)](#)'s study, which suggested that educators' understanding of inclusion is crucial for effective inclusive PE. Practical course lecturers are perceived to frequently sensitise their students to teaching similar skills in an inclusive setting. However, they reported that they do not often (53.3%) provide student-teachers with alternative instructional strategies and pedagogies for teaching similar practical skills in an inclusive PE setting. This contradicts [Ashman \(2015\)](#)'s study, which suggested that teacher educators provide adequate instructional strategies for inclusive PE. Research has shown that pre-service teachers' (PSTs) attitudinal formation ([Clarke et al., 2012](#)) and inclusive pedagogical skills and principle development ([Ashman, 2015](#)) are critically impacted by the pedagogical approaches adopted by teacher educators. This supports [Clarke et al. \(2012\)](#)'s study, which highlighted the importance of pedagogical approaches in shaping PSTs' attitudes towards inclusive PE. Lecturers further reported that they feel student-teachers are not well-prepared to adapt instructional strategies in an inclusive setting for

practical PE. These findings indicate that university student-teachers' preparation programmes are seen as adequate by student-teachers (Darko, 2021), but lecturers consider the preparatory programme to be virtually inadequate in terms of equipping student-teachers with the necessary instructional skills for inclusive practical PE teaching. This mirrors Hodge et al. (2017)'s study, which reported that teacher education programmes often lack adequate preparation for inclusive PE. Hence, departments are expected to provide student-teachers with instructional skills relevant for inclusive practical PE teaching. As reported by Meador (2020), effective instructional strategies should be structured by teachers to meet all unique learning styles and developmental needs of all learners. The implication is that practical course lecturers in the two departments should equip student-teachers with a well-rounded arsenal of effective instructional strategies applicable in inclusive PE practical settings. This is essential to maximise the effectiveness of PE student-teachers in seeking to increase learning opportunities for all students in inclusive settings. Practical course lecturers were of the opinion that student-teachers were not well-equipped in their preparation programme to adapt equipment and instructional skills to effectively include students with disabilities (SWDs) in practical lessons. This aligns with Greguol et al. (2018)'s study, which reported that teacher education programmes often lack adequate preparation for adapting equipment and instructional skills for inclusive PE. Thus, the lack of adequate professional education, in terms of pedagogy, both in undergraduate courses and continuing education, is seen as a serious obstacle to the school inclusion process (Hodge et al., 2017; Greguol et al., 2018). This suggests that teacher education programmes have to take into account the composite of undergraduate PE preparatory programmes in the universities to make them viable for inclusive teaching. The reason is that the implementation of education for sustainable development will depend on competent and committed teachers who are pedagogically well-equipped with inclusive ideas and concepts to operationalise it. This is because the indicators for effective inclusion depend on the inclusive pedagogical knowledge and abilities teachers have acquired to be active change agents in inclusive settings.

5. Conclusion and Recommendation

Findings revealed that lecturers do not provide student-teachers with alternative instructional strategies and adaptation skills for inclusive practical Physical Education (PE) during their preparation programme at the university. Lecturers perceive student-teachers as inadequately prepared to adapt equipment for inclusive PE, based on the training they believe student-teachers have received. Moreover, lecturers reported that student-teachers are generally unprepared to effectively include Students with Disabilities (SWDs) in practical courses, due to the lecturers' failure to equip them for inclusive PE teaching adequately. This suggests that lecturers view pedagogy and practical experiences as crucial for student-teachers' professional growth and development. Therefore, greater attention should be de-

voted to these aspects of the preparatory programme in the two university departments and other institutions that may offer PE programmes in the future.

The study infers that the preparation programmes at the two universities do not provide student-teachers with sufficient inclusive pedagogy and practical exposure. Consequently, these programmes should be restructured to meet the demands of inclusive education in Ghanaian schools.

The study recommends that inclusivity be considered by the heads and lecturers of the physical education departments when restructuring their programmes to meet the demands of Sustainable Development Goal 4 (SDG 4). Specifically, the two departments should design and align their preparation programmes and curriculum to enhance knowledge related to inclusive practical PE and its practices.

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Conflicts of Interest

The author declares that there is no conflict of interest.

Ethical Approval

Ethical clearance for this study was obtained from the Institutional Review Board (IRB) of the University of Cape Coast (UCC). Permission was also obtained from the two institutions in Ghana.

Informed Consent

Informed consent was obtained from the practical course lecturers prior to data collection.

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