

## **Determinants of Performance of Students With Physical Disabilities in Secondary Schools in Tanzania**

Nicco Abel Kombe<sup>1</sup>, Prof. Eliza Mwakasangula<sup>2</sup> and Dr. Orest Masue (PhD)<sup>3</sup>

<sup>1,2,3</sup>Department of Public Service and Human Management -Mzumbe University, Tanzania

<sup>1</sup><https://orcid.org/0009-0001-8598-4656>

<sup>3</sup><https://orcid.org/0000-0002-7100-3116>

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### **ABSTRACT**

*Literature acknowledges on the importance of assessment for learners at all levels of education. Specifically, the study sought to determine indicators of performance of students with physical disabilities in secondary schools in Tanzania. The focus of the study was on level of attendance in classroom, frequency of attendance in sports, ability to accomplish assignments and tests, and grades attainment in assignments and tests (Academic and non-academic performance indicators). The study was conducted in Dodoma which is the recent capital city of Tanzania. The study used a quantitative approach by employing a multistage sample of 294 teachers and 33 students with physical disabilities. Data of the study were collected through the use of a cross-sectional survey with structured questionnaires data collection tools. On the other hand, data analysis was done through descriptive and analysis of variance (ANOVA). The study findings show that attendance in classroom, and completion of tasks and assignment significantly predict performance of students with physical disabilities in secondary schools. However, participation in sports and attainment in tests and assignments' statistical significance in predicting or indicating performance was low. It is thus conclusive that attendance of students with physical disabilities in classroom and outside activities, and accomplishment of tasks and assignments are essential indicators of performance of students with physical disabilities in secondary schools in Tanzania.*

**Key words:** Determinant; Indicator; Performance; Disability; Secondary schools.

### **1. Introduction**

The individual restraints that disabled students meet in the schools are detrimental to their performance (McLeod, 2014; Possi & Milinga, 2017). These blocks may also have a hostile

effect on their social, psychological, and academic prospects. Worldwide, educational prospect to all groups of people has become an agenda for implementation. Therefore, a call has been presented to all nations to put in place education facilities that are disability friendly and several studies have shown that suitable physical learning environments may help in facilitating an improvement of SWDs' performance (AuCoin et al., 2020; Kombe & Mwakasangula, 2023).

Although different scholars have diverse perspectives on performance, most hold a general belief that it encompasses behavioral and outcome components. Campbell (1990); Sonnentag & Frese (2005) said it that, when conceptualizing the term performance, an individual should distinguish between behavioral and outcome facets of performance. Both academic and non-academic performance facets are feasible for students. curriculum, instruction, infrastructure, sports, and environmental concerns prevent this group from engaging in activities with other students without disabilities (Kabuta, 2014).

Similar to many other countries in the world, education for students with special needs has implemented under inclusive education as far as Salamanca accord is concern (Mkama & Storbeck, 2023; UNESCO, 1994). With this foundation, students with physical disabilities were encouraged to study in the same schools and learning environments together with other students without disabilities. This called up on the schools to adjust or improve infrastructure and other learning facilities in order to fit both groups of students. Despite the efforts for improvement, studies show that less has been documented on performance assessment criteria for students with disabilities in inclusion system (Migehe, 2014; Mkama & Storbeck, 2023).

Therefore, there is unquestionably a need for research that presents empirical evidence of the useful indicators for performance of students with disabilities. This study focused on bridging this empirical gap, hence assessed the performance indicators for SWPDs in ward secondary schools.

## **2. Material and Methods**

Cross-sectional survey design was employed to enable collection of data at a single study area and point in time. The design was employed based on the nature of the study that involved a single Case-Dodoma City, the capital city of Tanzania. A total of seventeen (17) public secondary schools were visited. The fore mentioned number of schools were found through a multistage sampling technique and structured questionnaires were used to collect primary data of the study from teachers and students with physical disabilities. A total of 327 sample was randomly selected from schools with SWPDs, whereby 294 respondents were teachers and 33 respondents were students with physical disabilities. This number of the students with physical

disabilities may look small due to the fact that it is the only sample size that could be found from the schools with inclusive education in the two district councils selected from Dodoma City.

**Table 2.1: Distribution of the Study Participants by Category/title**

Category	Number	Proportion (%)
Teacher	294	89.90
SWPDs	33	10.10
<b>Total</b>	<b>327</b>	<b>100</b>

**Source:** Fieldwork, 2021

The data collected were entered into MS-excel 2016 for data cleaning and sorting grounded on the facts obtained from teachers and students. Thereafter the data were organized before loading them into an IBM-SPSS version 25 for analysis. The data were then analysed through descriptive and analysis of variance (ANOVA). Data were examined, presented and interpreted through charts and figures as found in the results section.

### 3. Results

This section presents the findings from descriptive analysis and analysis of variance (ANOVA). Several indicators, including the level of attendance in class, the frequency of attendance and participation in extracurricular activities, the capacity to complete assignments and tests, and grades on assignments and tests, were taken into account in order to assess the performance of students with physical disabilities. These performance indicators were measured while taking into account the appropriate learning environment of SWPDs. This was to ascertain if these indicators accurately reflect the performance of students with physical disabilities in schools, as depicted in Table 3.1, the standard deviation of each variable was used to determine the item function under the Least Significant Test (LST), which demonstrates the internal correlation of the indicators. According to Sawyer et al., (2017), a variable's Standard deviation (St Dev) becomes a significant indicator if it is more than or equal to the grand mean of the standard deviation. Table 3.1 displays the levels or degrees of indications for each variable measured on teachers and children with physical limitations. Table 3.2 displays the Cronbach's Alpha reliability rating for the standardised test, Table 3.3 the variation in performance indicators, and Table 3.4 the correlation matrix between the indicators. In spite of the tables, Figure 4.1, displays the performance of indicators relative to the total and the same Figure 3.1, on the other hand, displays the performance of the indicators in relation to the standard deviation's grand mean and the overall mean score.

**Table 3.1: Descriptive scores of performance indicators with LSD test for mean comparison (n=327)**

Indicators	Mean	Maximum	Minimum	Standard Deviation
A. SWPDs attend classes regularly without any obstacles	3.03 <sup>a</sup>	5.00	1.00	1.25
B. In this school SWPDs have an average attendance of above 75	3.07 <sup>a</sup>	5.00	1.00	1.22
C. In this school SWPDs participate fully in essay writing	2.66 <sup>cd</sup>	5.00	1.00	1.19
D. SWPDs achieve upper grades as from B and above	2.67 <sup>cd</sup>	5.00	1.00	1.12
E. In this school SWPDs participate in class discussions	2.92 <sup>ab</sup>	5.00	1.00	1.16
F. SWPDs successfully accomplish extracurricular tasks	2.83 <sup>b</sup>	5.00	1.00	1.10
G. SWPDs' performance in sports and games has improved	2.58 <sup>d</sup>	5.00	1.00	1.16
H. SWPDs participate fully in students' government	2.86 <sup>b</sup>	5.00	1.00	1.26

Indicators with similar letters in the mean column they do not vary in mean score

Source: Field data, (2023)

The findings in Table 4.1 demonstrate that some indicators are strongly related to one another and are denoted by similar letters, as in the case of indicators A and B, which are denoted by the letter A due to their closely related means.

**Reliability Assessment of Indicators**

**Table 3.2: Cronbach's Alpha Assessment of Reliability**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.925	.926	8

Source: Field data, (2023)

**Table 3.3: variation among performance indicators**

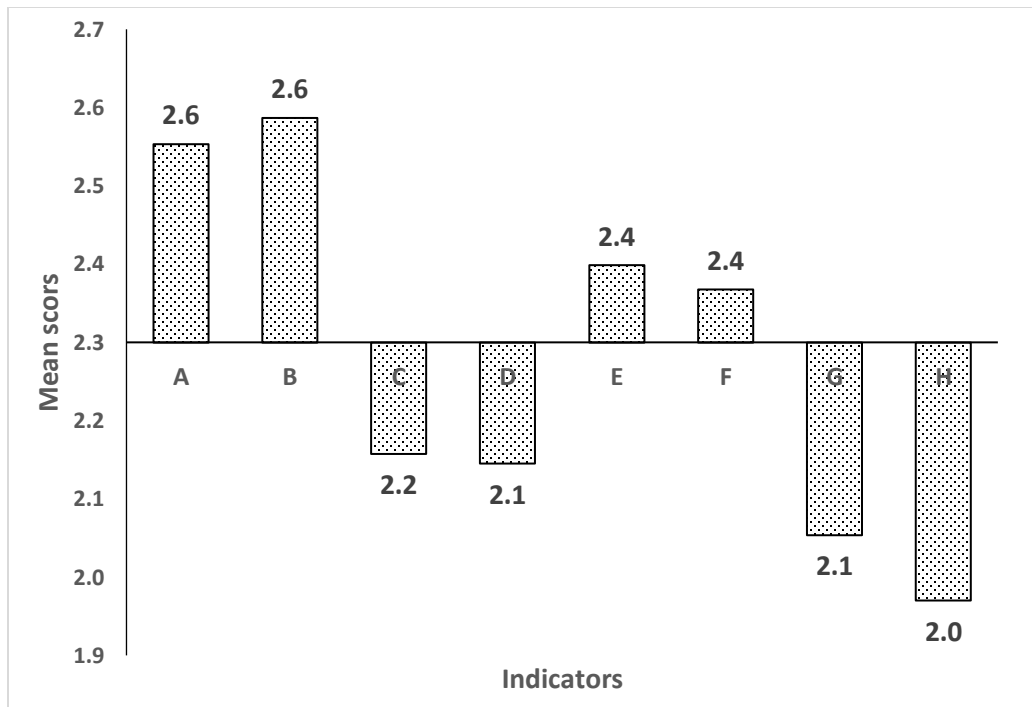
	Sum of Squares	df	Mean Square	F	Sig
Between People	2021.261	274	7.377		
Within People					
Between Items	61.138	7	8.734	15.741	.000
Residual	1064.237	1918	.555		
Total	1125.375	1925	.585		

Total	3146.636	2199	1.431	
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Grand Mean = 2.3

Source: Field data, (2023)

Figure 4.1: Performance of Indicators with Respect to the Overall Mean Score (2.3)



Source: Field data, (2023)

Table 3.4: Correlation Matrix

		A	B	C	D	E	F	G	H
Correlation	A	1.000	.685	.567	.504	.573	.589	.364	.525
	B	.685	1.000	.576	.519	.664	.617	.368	.565
	C	.567	.576	1.000	.677	.671	.685	.584	.653
	D	.504	.519	.677	1.000	.690	.684	.635	.701
	E	.573	.664	.671	.690	1.000	.749	.580	.680
	F	.589	.617	.685	.684	.749	1.000	.650	.635
	G	.364	.368	.584	.635	.580	.650	1.000	.651

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	H	.525	.565	.653	.701	.680	.635	.651	1.000
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Source: Field data, (2023)

#### 4. Discussion of the Findings

This study investigated on the indicators of SWPDs' performance in secondary schools. Indicators of performance as operationalized in this study, imply the behavior demonstrated by SWPDs with outstanding performance. Performance indicators in this study encompassed; level of attendance in classroom, frequency of attendance and participation in sports activities, ability to accomplish assignments and tests, and grades in assignments and tests. In order to determine whether these indicators accurately reflect the performance of students with physical disabilities in schools, they were measured while taking into account the appropriate learning environment of SWPDs.

The study's results discovered that SWPD attendance significantly predicts performance. This is in line with similar earlier studies by (McLeod, 2014; Possi & Milinga, 2017 and Kombe & Mwakasangula, 2023), which appealed that a conducive environment encourages SWPD engagement and drives them to increase enrolment and attendance. Similar to this, the SLT shows that effective application of the observed behaviour motivates repetitions of the behaviour, which leads to an increase in attendance.

Involvement in class discussions, completion of tasks and achievement of duties and assessments served as good signs of one's performance. Sonnentag & Frese (2005) also support that performance is associated with what an individual does in an activity. Other researchers, such as (Campbell, 1990; Campbell et al., 1993), reassure that a high performance occurs when a specific goal is accomplished.

Even though some performance forecasters such as participation in sports, high grades in tests and leadership were also analysed, it was found that their statistical significance in predicting performance was low, as can be seen in fig. 4.1, which displays an overall mean score of 2.3. The findings of other studies (Cunningham, 1986; Elkinton, 2020; McBeath, 1992; AIHW, 2000) controvert these discoveries. This may be because SWPDs problems are nearly connected to physical activity and engaging in laborious activity than cognitive responsibilities that are linked to achieving scores, marks and grades.

#### 5. Conclusion

The study examined the determinants of performance of SWPDs in Tanzania public secondary schools. The study concludes that attendance of SWPDs, involvement of SWPDs in classroom discussions, completion of tasks and achievement in duties and assessments serves as good

indicators and determinants of SWPDs' performance. On the other hand, participation in sports and achievement of high grades in tests and assignments and leadership were statistically rejected to be good indicators of SWPDs' performance. Performance of SWPDs can be determined by participation in manual activities related to learning activities since their major challenges relate to physical activities.

Data for the study were collected from Dodoma City, the Capital of Tanzania only. Since it did not take place in other regions in Tanzania, it restricts the study because situations in other regions may be different. However, the study employed only the quantitative data and therefore the study lacks triangulation of data type and data collection techniques (qualitative and quantitative techniques).

Lastly, leaders in Tanzania government dealing with social services provision and education sector, specifically in secondary schools that was the focus of this study ought to consider use of practical and manual activities in assessment criteria for students in secondary schools. Based on these grounds special practical assessment tools may be put in place for SWPDs. However, more studies may be conducted on assessment for performance of SWDs covering other types of disabilities and in other levels of education. They may also cover other areas and regions within Tanzania.

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