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# Space Availability For Students In Multi-Grade Schools And Its Effects On Their Performance At Primary School Level In District Lakki Marwat

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**ABSTRACT-** Students are stressed, anxious, depressed, worried, and uneasy in limited-spaced multigrade classrooms due to which they show poor learning performance. The study was descriptive in that a survey design was used in light of the objectives of the study. The total numbers of respondents taken as the population of the study were (N = 997) in which (n=100) respondents (female primary school teachers) were selected as a sample of the study by applying John Curry's sample size rule of thumb. Two schools of (monograde) and two schools of (multigrade) were selected as a sample from rural and urban localities to evaluate the learning performance of students. The key purpose of the study was to know the availability of adequate space for students' in multigrade classrooms and its effects on students' learning performance at the Primary School level in district Lakki Marwat. A Self-developed questionnaire was used to collect data from primary school teachers in District Lakki Marwat and a teacher-made test was used to evaluate the students learning performance. The collected data were statistically analyzed through SPSS by using Chi-Square, Frequency, and percentage. The study was delimited to Government Girls Primary Schools in District Lakki Marwat and the performance of students was checked in the subjects of English, Urdu, and Mathematics. Results and conclusions were drawn by revealing that adequate space was available in multigrade classrooms in which urban schools were better than rural ones. Some recommendations were suggested at the end for researchers in the future.

**Key Words:** Space Availability, Students, Multi-Grade, Primary Schools, Effects, Performance, Lakki Marwat, KP.

## I. INTRODUCTION

(Aksoy, 2008) found that teachers face students' attendance issues in limited-spaced multigrade classrooms because a few students taking no interest in studies try their best to escape from their classes during the multigrade teaching-learning process. (Ballesteros and Ocampo, 2016) revealed that multigrade classrooms with limited space are badly affected due to so many reasons like rapid work completion, difficulty in maintenance of discipline, and poor classroom management system or control. (Buaraphan, Inrit, and Kochasila, 2018) highlighted that teacher in the multigrade classroom with adequate space ensure students' improvement in academic activities so that they perform their best from an educational and academic point of view. (Cadosales, 2011) explained that wide and open-spaced multigrade classrooms are quite essential to avoid certain problems like noise, lack of concentration, and fear of disruptive behavior among students during the multigrade teaching-learning process.



(Cadosales, 2017) illustrated that student learn with full concentration and focus in wide-open spaced multigrade classrooms. (Castigador, 2019) pointed out that students confront psychological problems like tension, conflict, disruptive behavior, indiscipline, and mismanagement due to limited and unavailability of the wide and open-spaced classroom for multigrade teaching-learning process. (Checchi, and De-Pala, 2018) explained that teachers feel difficulty in the correction of students' issues, mistakes, and errors in multigrade classrooms. (Condy and Blease, 2014) Students are mentally disturbed and confused due to insufficient desks, chairs, and other learning resources because of the unavailability of wide, open, and well-ventilated space in multigrade classrooms. (Creswell, 2009) highlighted those students who face problems of limited spaced classrooms during multigrade teaching-learning activities also confront difficulty in interaction with teachers as well as questioning-answering problems.

(Doğan, Çapan and Ciğerci, 2020) mentioned that teachers can't properly supervise and assess their students in multigrade limited-spaced classrooms. They can't adjust students' mandatory activities like assignments, presentations, quizzes, and tests in limited-spaced multigrade classrooms. (Engin, 2018) revealed that students' learning environment is negatively affected due to limited spaced problems in multigrade classrooms and the problem of time management also occurs when multigrade classrooms are not wide, open-spaced, and ventilated with proper light and other facilities.

According to (Laal, 2011), teachers need to participate in multigrade related training and workshops for their quality teaching performance and activities. (Hyry-Beihammer and Hascher, 2015) found that policymakers ensure the multigrade teaching-learning process in schools to compete in the advanced and developed world. (Little, 2001) asserted that the education department provides all facilities useful in multigrade teaching-learning activities at the Primary school level. (Mortazavizadeh et al., 2017) narrated that multigrade teaching-learning activities promote social, confidence, culture, teamwork, and other such qualities in students.

## II. STATEMENT OF THE PROBLEM

Multigrade teaching is usually in community sector schools mostly in rural areas of Pakistan. In Pakistan multigrade teaching is adapted as a necessity. The researcher probed the problem of adequate space available for students in multigrade schools and its effects on their learning performance at the primary school level in the district market.

## III. RESEARCH METHODOLOGY

A descriptive survey design was used in light of the objectives of the study. All female primary school teachers (N = 997) in District Lakki Marwat comprised the population of the study. The total numbers of (n=100) respondents i.e. female primary school teachers of District Lakki Marwat were taken as a sample of the study by applying John Curry's sample size rule of thumb. Two schools from urban areas (monograde) and two schools from a rural area (multigrade) were selected as a sample to evaluate the learning performance of students. The key purpose of the study was to know the availability of adequate space for students' in multigrade classrooms and its effects on students' learning performance at the Primary School level in district Lakki Marwat. A Self-developed questionnaire was used to collect data from primary school teachers in District Lakki Marwat and a teacher-made test will be used to evaluate the students learning performance. The collected data were statistically analyzed through SPSS by using Chi-Square, Frequency, and percentage. The study was delimited to Government Girls Primary Schools in District Lakki Marwat and the performance of students was checked in the subjects of English, Urdu, and Mathematics.

Table 1: Female Primary School Teachers	
Population	Sample
997	100

### John Curry (1984) sample size rule of thumb

Population	Sample Size
10-100	100%
101-1000	10% (Sample size is falling in this category)
1001-5000	5%
5001-10000	3%
10000+	1%



#### IV. DELIMITATIONS OF THE STUDY

The study was delimited to Government Girls Primary Schools in District Lakki Marwat and the performance of students was checked in the subjects of English, Urdu, and Mathematics.

#### V. RESEARCH OBJECTIVES OF THE STUDY

The objectives of the study were to (1) examine the perceptions of teachers regarding the availability of adequate space for students in multi-grade Classrooms at the Primary level in district Lakki Marwat, (2) determine the effects of space availability on students' learning performance in multigrade classrooms at Primary school level in district Lakki Marwat, and (3) suggest recommendations regarding the availability of adequate space for students' in multi-grade classrooms and its effects on students' learning performance at Primary School level in district Lakki Marwat.

#### VI. RESEARCH QUESTION OF THE STUDY

The research question was (1) what are the perceptions of teachers regarding the availability of adequate space for students in multigrade classrooms at the Primary level in district Lakki Marwat? (2) what are the effects of space availability on students' learning performance in multi-grade classrooms at the Primary school level in district Lakki Marwat?

#### VII. HYPOTHESIS OF THE STUDY

The hypothesis of the study was (1) there was no effect of space availability on students' learning performance in the multigrade classroom at the Primary school level in district Lakki Marwat.

#### VIII. PURPOSE OF THE STUDY

The main purpose of the study was to know space availability for students in multigrade schools and its effects on their performance at the primary school level in district Lakki Marwat.

#### IX. RESEARCH RESULTS

Table 2: Space Availability for Students in Multigrade Classroom									
Statement: Adequate space is available for students in a multi-grade classroom.								Total	$\chi^2$
			Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree		.109
School Category	Rural School	Count	11	11	2	0	6	30	
		Expected Count	6.6	14.7	2.4	1.2	5.1	30.0	
	Urban School	Count	11	38	6	4	11	70	
		Expected Count	15.4	34.3	5.6	2.8	11.9	70.0	
Total		Count	22	49	8	4	17	100	
		Expected Count	22.0	49.0	8.0	4.0	17.0	100.0	

Asymp. Sig. (P-value)  $\leq 0.05$ : Null Hypothesis Rejected

Asymp. Sig. (P-value)  $> 0.05$ : Null Hypothesis Accepted

Table 2 indicates that 22.0 percent of respondents (Primary School Teachers) strongly agree with the statement that "adequate space is available for students in the multi-grade classroom" likewise, 49.0% of respondents agree, 8.0% respondents undecided, 4.0 respondents disagree, and 17.0 % respondents strongly disagree with the said statement. After Chi-Square analysis, the calculated value was .109 at tabulated value (Asymp. Sig. /P-value) 0.05. As calculated value .109  $> 0.05$  which means that null hypothesis is accepted regarding the statement that "adequate space is available for students in the multi-grade classroom".



## X. RESEARCH DISCUSSION

The results of the current study indicate that adequate space is available for students in multigrade classrooms. The classrooms used for multigrade teaching-learning purposes are wide, open spaces, well ventilated, airy, and equipped with other learning facilities like lighting, fans, and so on. Teachers and students properly avail multigrade teaching-learning opportunities at the Primary school level. According to the previous study by R5 explained that students don't show misbehavior, vulgar attitude, anxiety, and stress during the multigrade teaching-learning process when classrooms are wide, open, airy, and well ventilated in which urban schools were found better as compared to rural schools in district Lakki Marwat. R14 pointed out that it ought for the government of the time to ensure a proper environment for multigrade classrooms at the Primary school level in any region.

## XI. RESEARCH CONCLUSIONS

The researcher concluded in light of the results of the study by keeping in view the objectives of the study that teachers and students had no problems regarding the availability of space multigrade classrooms at the Primary school level. The researcher concluded in the light of statistical analysis that multigrade classrooms were open spaced and equipped with all necessary facilities required for the multigrade classrooms by revealing that there was no noise, no stress, no depression, and no concentration problems at the multigrade level.

The researcher further concluded that urban schools were found better than rural schools as statistically shown in table 2 in which the strongly agree and agree responses of rural school respondents were 49% while the said responses of rural schools respondents were 22% accordingly.

## I. SIGNIFICANCE OF STUDY

The current study is very significant for the education department to know that multigrade classrooms are equally effective alternate to monograde classrooms for the best interest of students. The study is quite beneficial for government school teachers to improve their teaching skills at multigrade classroom level by providing students better instructional and teaching materials to students to enhance students' quality standard from a learning point of view. The study is very vital and beneficial for the policymakers, planners, curriculum developers, professional support staff, parents, teachers, and students as well.

## XII. RESEARCH SUGGESTIONS

The following recommendations were drawn by keeping in view the objectives and results of the study:

1. The government may provide all facilities to the primary schools both in rural and urban schools of district Lakki Marwat that are mandatory for the multigrade teaching-learning process.
2. Primary school teachers may be given proper training regarding multigrade classrooms.
3. Teachers teaching multigrade classes may participate in different workshops and seminars related to multigrade teaching-learning activities at the primary level.
4. Awareness may be ensured in students regarding the concept of multigrade classrooms along with all rules and regulations about the multigrade teaching-learning process.
5. The policymakers, educationists, education department, and other researcher scholars or philosophers may support the government to successfully ensure the multigrade teaching-learning process at the Primary school level.

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