

Journal Homepage: -www.journalijar.com

INTERNATIONAL JOURNAL OF **ADVANCED RESEARCH (IJAR)**



Article DOI:10.21474/IJAR01/7430 **DOI URL:** http://dx.doi.org/10.21474/IJAR01/7430

RESEARCH ARTICLE

COMPARISON OF THE EFFECTIVENESS OF MULTI-GRADE TEACHING WITH THAT OF MONO-**GRADE TEACHING AT PRIMARY LEVEL**

Muhammad ShahzadAshfaq (Ph.D Scholar)¹, Dr. M. Imran Yousuf² and Dr. M. Arshad Dahar³.

- Faculty of Social Sciences, Pir Mehr Ali Shah, Arid Agriculture University, Rawalpindi Pakistan
- Chairman, Department of Education, Pir Mehr Ali Shah, Arid Agriculture University, Rawalpindi Pakistan.
- Assistant Professor, Faculty of Social Sciences, Pir Mehr Ali Shah, Arid Agriculture University, Rawalpindi, Pakistan.

Manuscript Info

Manuscript History

Received: 17 May 2018 Final Accepted: 19 June 2018 Published: July 2018

Keywords:-

Mono-grade teaching, effects of teaching, primary level schools, teacher's perception.

Abstract

In this modern age when the world is discovering life on Marse, the educational system is key point to success for every nation of the world. Any nation which does not follow modern and partially good teaching techniques will not be contending the rest of world. The teaching profession is considered as the best and perfect duty in the world as they give caring obligation to shape somebody's life. Before going to the classroom, a great teacher guarantees his/her objectives of training on regular routine. Each teacher has diverse characteristics of showing their understudies. They change in their insight, abilities, and mentalities in showing particular subjects. They attempt their best and do all endeavors in helping us to accomplish our objectives in life. The aim of present study is to investigate and compare the effectiveness of multi-grade teaching with that of mono-grade teaching at primary level. The objectives of research study were: (1) To find out the effectiveness of multi-grade teaching. (2) To find out the effectiveness of mono-grade teaching. (3) To compare the effectiveness of multi-grade teaching with that of mono-grade teaching. It was descriptive comparative survey research study. The population was comprised of one thousand five hundred and seventy six (five hundred and thirty one male and one thousand and forty five female) primary teachers of government schools. A sample of two hundred teachers from government primary schools was taken. Two teachers from each school were selected for the study interest by convenience sampling technique. Research questionnaire was developed on likert scale for teacher's perception on the organizational effectiveness of multi-grade teaching and for perception of teachers on the effects of mono-grade teaching. The collected data were analyzed through SPSS 21 and Minitab 14. The score of responses were tabulated in to the frequencies and represented in percentage. Z test was performed for equality of two proportions, the results were significant, which means that the effect of two teaching methodologies on student's learning is not equal and majority of teachers are supporting to mono-grade method of teaching.

Copy Right, IJAR, 2018, All rights reserved.

Address:-Faculty of Social Sciences, PirMehr Ali Shah, Arid Agriculture University, Rawalpindi, Pakistan.

Introduction:-

Education is a basic part of society. In North America, United States and Canada particularly, training is a key right delighted in by every subject. While the level of gaining differs extraordinarily from individual to individual, class to class, school to school, and ward to purview, the instructive conveyance show is strikingly comparable all through the world comprising of either the multi-grades or mono-grade classroom method (Little, 2004). The usage of either multi-grade or mono-grade is definitely not continuously in view of amplifying learning openings (Vincent, 1999) yet in light of the money related substances of directing a school, educator supply, and understudy enlistment (Blum and Diwan, 2007, Little, 2008). In numerous social orders over the world multi-grade classrooms are not just the main other option to mono-grade classes, additionally truth be told, the main instructive structure accessible by any means (Blum and Diwan, 2007). That is, if understudies don't get a multi-grade training, at that point they don't get any training what so ever (Berry and Little, 2006). Outside the United States and Canada, while exact information is hard to confirm, in any case multi-grade instruction is an extremely common and standard instructive practice. This reality in any case, an investigation of the adequacy of multi-grade versus mono-grade the student's achievement levels is absolutely apropos. While multi-grade classrooms might be an ordinary which more, unavoidable instructive practice in both industrialized and creating nations, as beforehand noticed that does not mean the examination is decisive on the benefits of the multi-grade instructive practice (Brinegar, 2010, Little, 1995, Little, 2008). There is a variety of phrasing utilized as a part of multi-grade training needing illumination for the present examination. There is a requirement for acknowledgment and shared characteristic in the wording. While the plenty of terms used in multi-grade instruction are extraordinary and particular in their own particular right, the most generally referred terms are either multi-age or multi-grade. They may be confirming verifiable difference in wording and structure of the multi-age classroom, however the essential theory has continued as before (Cornish, 2009). The classroom associations of multi-age and mono-grade are independent and unmistakable instructive statutes. The procedure of multi-grade classrooms is not to a great extent an item of declining enlistment in rustic schools (Little, 2008).

Multi-grade and mono-grade classrooms are not new or creative thoughts in instructive idea. In some instructive settings multi-grade classes have been conceived out of need because of declining enlistments yet in other instructive situations the multi-grade classroom is a deliberate course of action seen as a critical method for moving forward understudy teaching (Vincent, 1999). It may, paying little respect to the explanations behind multi-grade execution, the unavoidable conclusion can't be maintained a strategic distance from that the advantages of multi-grade instruction are uncertain (Brinegar, 2010 and Little, 2008), improving understudy learning (Vincent, 1999). The little mind to the purposes behind multi-grade execution, the unavoidable conclusion can't be stayed away from that the advantages of multi-grade training are uncertain (Brinegar, 2010 and Little, 2008).

This term multi-grade is utilized to depict any program in which understudies in various teaching levels are put together for authoritative reasons. This incorporates multi-grade classes together with mono-grade schools, where multi-teaching shows the reaction in the way that there are a smaller amount of teachers than evaluation levels, and bigger schools, where multi-grade is a reaction to uneven student admission. A few different terms might be utilized as a part of the writing to elude a multi-grade classroom. This incorporate mix group of students, vertically assembled class, blended age class, split-grade class, and two fold grade class (the final two points just containing two evaluations). It is likewise important to recognize multi-grade classes to which understudies can't be chosen on the premise of such things as capacity or disposition (non-intentionally allotted) and multi-grade classes to which understudies can be chosen (deliberately appointed). In these two terms to clarify why numerous investigations of multi-grade settings discover no distinction in psychological accomplishment when contrasted with mono-grade settings. Understudies are dependably non-intentionally doled out to multi-grade classes in multi-grade schools. Investigations of the impacts of multi-grade classroom association have not generally made this refinement unequivocal (Brown, 2010).

Multi-grade classes can change as far as the multifaceted nature of the instructional methodologies utilized. For instance, students of various ages might be intentionally gathered for one subject with the goal of lessening heterogeneity of capacity and making it less demanding to educate the entire class. Then again, multi-grade gathering might be presented over the educational programs. This should be in mind that the last goal is to exploit the apparent focal points of blended age classes for concentrating on the formative needs of individual children. Multi-grade classrooms are methods for keeping up teaching and schools considering declining understudy enlistment, or in a few occurrences in inward city groups those outcomes in either going to multi-grade classes or no school by any stretch of the imagination (Berry and Little, 2006). The mono-grade classroom is the most broadly

perceived type of instructive association for classrooms. At the point when offered as another option to the monograde classroom to guarantee a maintained instructive program for rustic understudies, and customarily, poor locales multi-grade classrooms are gainful in view of their reasonable money related points of interest and keeping up classrooms despite declining or little understudy enlistments (Little, 2004a). Moreover, multi-grade teaching is a sensible, and now and then best, elective on account of the required individualized instructing through separated direction (Tomlinson, 2005), and the advantages of competent companion joint effort (Fawcett and Gorton, 2005).

The multi-grade schools utilize similar educational modules, have similar states of administration, a similar national performing and have indistinguishable arrangements from other government funded schools in the nation. This recommends the educational modules substance, instructing and learning materials are intended for mono-grade classes. It is against this foundation that the grade class was done to comprehend educators' difficulties on multigrade showing system in rustic schools. Besides, insufficient physical workplaces of primary schools, absence of monetary assets, reluctance of teachers to teach in rustic/isolated regions and absence of prepared educators in multiclasses educating are likewise alternate explanations for the required utilization of multi-grade teaching in the nation. In the main circumstance, two evaluations are situated in one classroom and the educator offers assignments to one grade while educating alternate evaluations and the other way around. In the other circumstance, one educator assumes the liability of showing more than one grade in the meantime. In the last circumstance, every evaluation be situated by a different classroom and the instructor educates every grade in a different classroom.

Multi-grade education is a contrasting option to mono-grade classrooms. The method of reasoning for the usage of multi-grade classrooms rests in the need to keep up schools and instructive open doors for understudies (Berry and Little, 2006). There are numerous rustic schools with multi-grade classrooms which are 'fundamentally existent' (Mulcahy, 2009). These schools exist due to the exceptional rustic, and remote, area of each instructive establishment. There are favourable circumstances of numerous parts of multi-grade instruction such as mental and social advancement (Cornish, L., 2002). Multi-grade classes are instructive associations that are common in many schools and may increase through time (Mulryan-Kyne, 2007). In this way any choice concerning multi- grade training ought to be founded on understudy accomplishment information. Multi-grade schools are frequently situated in isolated and hard to achieve ranges. They might be a long way from the instructive focus and get minimal academic support. The people group in which they are found may not see the estimation of instruction, and may talk an alternate dialect to the "official" one of the school. Therefore, this is basic that the group to be included in the life of the school. Guardians can be made a request to become into go about as an asset, the educational programs of the school may reach out into the group, or the group can be made a request to bolster the school in different ways. Multi-grade educators ought to be prepared in techniques that assistance to create relations among the school and the group (Mulcany, 2000).

Backgrounds:-

Multi-Grade Teaching:-

A combination of perspectives and discernments on the starting points of idea multi-grade educating was created through survey of writing and other significant wellsprings of data (Beukes, 2006). It contends that multi-grade educating is not new thought in deficiencies of educators, instructor truancy because of disease and spending limitations confronting numerous nations makes multi-grade educating an alternative (Juvane, 2005). The separates the conditions which prompt the utilization of multi-grade instructing as attributes of learners or instructors, decision made by policymakers and additionally educators to enhance the nature of teaching method. In the following segment the causes of multi-grade instruction are examined in view of the survey of point of view of various creators. Firstly, multi-grading is regularly connected with "little" schools in remote and meanly populated areas. In such schools, there might be just a single, a few instructors, yet they offer an entire cycle of essential training. In the event that that cycle comprises of eight review levels, at that point each of these instructors must manage multi-grade classes. Like these "little" schools some time known as "multi-grade" schools. Multi-grade schools have pulled in consideration in the creating nation setting in light of their capability to build elementary school cooperation rates. Secondly, multi-grade instructing is likewise normal in bigger urban and rural schools. In a few nations, it is a reaction to uneven understudy enlistment. For instance, a school with an over two review section may need to join two grade levels to make up class sizes. Additionally, in nations where instructor non-attendance is high, and there is no 'cover', evaluations might be joined to abstain from having a class with no educator exhibit. Thirdly, multi-grade instructing might be a think reaction to instructive issues. In created nations, this is connected to the multi-age point of view. Advocates of blended age gathering contend that there are sound academic purposes

behind setting understudies of various ages together in a similar classroom. Blended age classes, it is contended, invigorate youngsters' social advancement and empower more noteworthy classroom participation.

Multi-grade educating has been an exercise in both created and creating nations of the world. Multi-grade instructing is typically measured as a matter or an issue in creating nations where the same number of created nations acknowledge it as a compelling procedure (Sibli, 2003). Globally, this has been alluded differently in writing as multi-grade, various group of students, combined class, vertical gathering, family class', and, on account of one instructor schools, unitary schools. Therefore multi-grade educating is alluded to as the educating of understudies of various age groups, evaluations and capacities by a similar gathering (Little, 1995). Multi-grade teaching is by and largely found in schools where only one teacher is available or an institution have only two teachers, here and there even this method can also be seen where in a school have three teachers, multilevel classes in higher foundations, no graded early adolescence training units and unique multilevel collection of understudies. In such schools enrolments is a rule modification within ten to hundred. Multi-grade teaching is not a response to meeting educator deficiencies in the instructive frameworks yet is a methodology to enhance the nature of training in rustic groups. Looking to the socio-social milieu in which the little schools with multi-grade educating are working, these schools could be the focuses of social improvement and group conscientious and the requirement for enhancing their working is far more noteworthy than perceived. Multi-grade educating is a teaching game plan requesting a circumstance where an institution requires that kids from greater than one grade are instructed jointly giving practice exercises at a suitable level for every review, enabling every youngster to increase measure up to profit by their education encounters (NEC, Sri Lanka, 2003). Multi-grade instructing occurs inside a reviewed arrangement of teaching when a solitary class contains at least two understudy review levels. It is stood out from the typical example of classroom association in reviewed frameworks where a solitary classroom contains understudies of just a single teaching grade. In a number of reviewed frameworks, age and grade are consistent, which a review level is likewise proportional to a specific age gathering of understudies. In a multi-grade class youngsters get less immediate guideline by their educator, timely assignments are poorer and companion mentoring or cross grade gathering by capacity are not applied to any critical degree. Mulryan-Kyne, (2005), found that teaching methodologies are the way to enhancing the nature of educating and studying in multi-grade classroom. The advancement of methodologies those expansions the level of understudy autonomy and agreeable gathering work have a tendency to be proposed. Mulryan-Kyne, (2005), contends that the supporting part guarantees that time used up far from the instructor is used beneficially. Three vital techniques observed to be powerful in such manner are: Peer direction, in which understudies go about as educators for each other, helpful gathering work, which includes little gatherings participating in synergistic errands, and individualized learning programs that include the understudy in self-ponder (Mulryan-Kyne, 2005). The multi-grade display rather than the mono-grade training model is by all accounts actualized for the most part in rustic zones (Tsolakidis and Constantinidi, 2006).

Little, et al., (2007), expresses that multi-grade method, where studies are conducted in more than one grade is educated jointly with a solitary instructor in a similar place. As indicated by (Little, 1995), multi-grade teaching is standard for the majority institutions in country zones. (Hargreaves, 2001), as already specified, the multi-grade educating is instructing by one instructor of youngsters working in a few evaluations or period gatherings. This is supported by (Nawab and Baig 2001), contend various conditions, for example, multi-grade, blended year, mix class, plumb gathering, children gathering, compound class, opening class, dual evaluated class and unitary institutions are utilized over the world to portray the multi-grade circumstance. These conditions allude that the multi-grade circumstance is portrayed in different regions of the world. In any case, the favoured conditions those will be utilized as a part of this examination are multi-grade. Moreover (Muthayan, 1999), asserts that despite the fact that the terms multi-grade and multi-age educating frequently are utilized conversely, they allude to various circumstances. He expresses that multi-grade classes are built up because of managerial needs, for example, small number of registrations, while multi-age classes is the point at which the evaluations and showing educational programs are coordinated. In this examination multi-grade and multi-age are not utilized conversely in the light of the fact that in the multi-grade classroom and mono-grade classrooms the learners are of multi-age, along these lines multi-age does not refer to multi-grade.

This research is endeavored to break down how educators in primary schools oversee instructing and learning in multi-grade classrooms. Multi-grade teaching referred to the educationing of understudies of various ages, evaluations and capacities in the same gathering. It is referred to different in the writing as multi-level, numerous class, composite class, vertical gathering and on account of one teacher schools. Multi-grade teaching is turning into an overall wonder in the vast majority of the rustic regions of giving expanded access to kids in a peopled provincial

territory where it is hard to give the sufficient number of instructors required for the mono-grade classes. Multi-grade teaching is utilized to depict the instructing in fundamental training of students from number of evaluations normally in one class. Multi-grade educators ought to be prepared the techniques that assistance to create relations among the school and the learners group. The difficulties of multi-grade educating and learning are that the nation-wide educational modules improvement and educators preparing programs are for the most part in view of a model of mono-grade educating and learners in accepted multi-grade schools need to fight for themselves. The challenges confronted by instructors showing multi-grade classrooms radiates from educational modules outline, the educators themselves, learning and instructing form, school conditions, learners, educators preparing, course books and support. Teacher in multi-grade classrooms are required to actualize the educational programs for mono-grade classrooms and that makes a significant amount of challenges for the instructors included.

This current exercise is a supply of educator shares in view of the evidence of the quantity of understudies selected in the school, absence of the necessary number of understudies in the schools of isolated and provincial territories all over in the country frequently brings about the insufficient supply of teacher amounts for the quantity of classes. Due to the deficiency of teachers and understudies of a little town does not permit by lead the foundation of primary school in the remote precipitous and sloping districts, multi-grade educational structure of essential training has been particularly in trend in these areas of the Kingdom (Apeid/Unesco, 1989).

Mono-Grade Teaching:-

The idea of a teacher understudy instructive model is an authoritative structure that strings all through history. Instructive structures shift through time and locales. The cutting edge organized mono-grade class comprising of an accomplice of age-comparative understudies follows back to the nineteenth century (Pardini, 2005). The more current day classroom is more than the basic securing of topic (Dewey, 1916 and Vgotsky, 1978).

Multi-grade teaching shows an inescapable exercise which emerges through predetermined amount of understudies and classrooms in little and dispersed resolution territories where populace thickness is low and is seen as a framework that should be canceled (Aksoy, 2007). Multi-grade teaching is coordinated to parallel value of change. APEID/UNESCO (1989), has properly said that multi-grade teaching does not a response to gathering educator lack in an instructive framework yet is a procedure for enhancing of nature of training in country groups. Multi-grade classes contrast from customary classes where each class has its particular grade with its own particular educator and classroom. On account of multi-grade teaching, this is eluded as the course of action of a situation in which understudies of no less than two evaluations are educated jointly by an instructor in one classroom. The other situation, which is not quite the same as this, has isolate classrooms for various evaluations, yet not the required number of classrooms, where the single educator instructs these evaluations by going to the different classrooms in meantime. This kind of teaching course of action is also called multi-class educating, which is the prevailing component of teacher in rare schools other than the normal schools.

The multi-grade schools utilize similar educational modules, have similar states of administration, a similar national performing and have indistinguishable arrangements from other government funded schools in the nation. This recommends the educational modules substance, instructing and learning materials are intended for mono-grade classes. It is against this foundation that the grade class was done to comprehend educators' difficulties on multigrade showing system in rustic schools. Besides, insufficient physical workplaces of primary schools, absence of monetary assets, reluctance of teachers to teach in rustic/isolated regions and absence of prepared educators in multiclasses educating are likewise alternate explanations for the required utilization of multi-grade teaching in the nation. In the main circumstance, two evaluations are situated in one classroom and the educator offers assignments to one grade while educating alternate evaluations and the other way around. In the other circumstance, one educator assumes the liability of showing more than one grade in the meantime. In the last circumstance, every evaluation be situated by a different classroom and the instructor educates every grade in a different classroom.

Multi-grade educators ought to be prepared the techniques that assistance to create relations among the school and the learners group. The difficulties of multi-grade educating and learning are that the nation-wide educational modules improvement and educators preparing programs are for the most part in view of a model of mono-grade educating and learners in accepted multi-grade schools need to fight for themselves. The challenges confronted by instructors showing multi-grade classrooms radiates from educational modules outline, the educators themselves, learning and instructing form, school conditions, learners, educators preparing, course books and support. Teacher in

multi-grade classrooms are required to actualize the educational programs for mono-grade classrooms and that makes a significant amount of challenges for the instructors included.

Purpose:-

There are certain philosophies in this investigation which should be cleared up keeping in mind the end goal to get a handle on the attitude thoughts in this examination. These ideas are clarified in order arrange. The purpose of this measureable research was a comparative research to examine existing test results to determine if there was a difference in teaching achievement in reading and writing, among mono-grade and multi-grade classes. This study collected quantitative data that allowed for an investigation of the relationships among variables so that a comparable study should be able to produce comparable results (Black, 1999). The purposes behind the presentation of multi-grade classrooms are most certainly not generally in light of the unselfish philosophy of expanded individual understudy learning. Rather, the usage of multi-grade classrooms is for the substantially more non instructive reasons of budgetary reasonability, (Little, 2004a), independent of its impact on understudy learning. At the point when multi-grade instruction is being proposed the examination does not give indisputable proof to help instructive partners in the basic leadership prepare if in fact it is a reasonable contrasting option to the mono-grade classroom. The usage of either multi-grade or mono-grade is definitely not continuously in view of amplifying learning openings, Little (2008), Blum and Diwan (2007), Vincent (1999) yet in light of the money related substances of directing a school, educator supply, and understudy enlistment. Outside the United States and Canada, while exact information is hard to confirm, in any case multi-grade instruction is an extremely common and standard instruction practice. This reality in any case, an investigation of the adequacy of multi-grade versus mono-grade understudy accomplishment levels is absolutely apropos. While multi-grade classrooms might be an ordinary that's more, unavoidable instructive practice in both industrialized and creating nations.

Additionally depicted restrict discoveries that announced constructive outcomes and negative impact, and no critical contrasts in understudy learning in multi-grade and mono-grade classes. Research in multi-grade teaching, especially as it identified with understudy accomplishment, remains to a great extent unexplored.

Objectives:-

The objectives of the research study were as under:

- 1. To find out the effectiveness of multi-grade teaching.
- 2. To find out the effectiveness of mono-grade teaching.
- 3. To compare the effectiveness of multi-grade with that of mono-grade teaching.

Significance:

The findings of the study will be a great importance in teaching methodology. The study will be beneficial for government schools teachers for improvement in their performance and for students by providing guideline for improving the educational standards of the students and increase achievement in their understanding regarding teaching methodology. The current study contribute to be educational research if multi-grade teaching is an equally effective alternate to mono-grade teaching, it is likely to be in the best interest of the students.

Literature Review:-

The Literature study involved significant research points of view on the impacts of multi-grade teaching on understudy accomplishment. The writing survey started with a hypothetical and authentic setting for the investigation too sketching out ordinarily alluded terms for multi-grade classroom association in the exploration. The writing additionally depicted restricting discoveries that have announced constructive outcomes, negative impacts, and no critical contrasts in understudy learning between multi-grade and mono-grade classes. Research in multi-grade instruction, especially as it identifies with understudy accomplishment, remains to a great extent unexplored (Tomlinson, 2000). While the term multi-grade instruction is most broadly utilized as a part of the writing, there are numerous other practically identical, yet independent; terms used to depict a classroom that is authoritatively not the same as the conventional mono-grade class (Berry and Little, 2006). The research literature on classroom associations in instructive frameworks that are basically unique in relation to the conventional mono-grade class comprising of likeminded, comparable matured people, uncovered a scope of terms. The general term for the customary classroom instructed by one educator is mono-grade training (Little, 2004a). At the point when referencing classrooms, which are not mono-grade, the writing for the most part alludes to classrooms as multi-grade or multi-age (Berry and Little, 2006). While there is a wide scope of terms to catch basically the instructive association of multi-review classrooms, the examination writing incorporates a large group of different terms, which

for the most part exemplify a similar idea, which is, any classroom association outside the customary mono-grade plan (Cohen, 1993). In this manner, every classroom association, which is not mono-grade in configuration, has its own exceptional instructive logic. Mono-grade classes remain solitary and unmistakably set apart from these other classroom associations. To this extend, while there are different terms, in all over world, the portrayed multi-grade settings, for the most part the examination references the term multi-grade (Berry and Little, 2006).

It managed an intensive report on the impacts on substitute accomplishment in multi-grade understanding when compared with mono-grade learning. In a survey it is apparent that understandings in multi-grade classes had no predictable contrast in achieving scores in centre branches of knowledge perusing, arithmetic and language in comparison of mono-grade classroom method. Veenman's investigates a frequently situation in the negation of arguments against the execution of multi-grade training (Veenman, 1995). Multi-grade education has been the subject of a lot of consideration and study. While multi-grade education is not another idea in instructive association, it has did not have a specific level of consideration in its adequacy in acknowledging definitive investigations on essential understudy accomplishment. The execution of multi-review classrooms is typically for money related reasons because of an absence of assets and low understudy enlistments (Little, 2004a) and (Mulryan-Kyne, 2007). In any case, the purposes behind the presentation of multi-grade classrooms are most certainly not generally in light of the unselfish philosophy of expanded individual understudy learning. Rather, the usage of multi-grade classrooms is for the substantially more non instructive reasons of budgetary reasonability (Little, 2004b), independent of its impact on understudy learning. At the point when multi-grade instruction is being proposed the examination does not give indisputable proof to help instructive partners in the basic leadership prepare if in fact it is a reasonable contrasting option to the mono-grade classroom.

Brown, (2010), asserts that the multi-grade classes are harder to instruct than mono-grade classes. In harmoniousness Miller, (1991), states that the guideline, classroom association and administration are mind boggling and requesting for the educator. Distinguishes instructional institutions influence fruitful multi-grade educating as classroom association, classroom administration and training, instructional association and educational subdivisions, instructional conveyance and gathering, self- coordinated learning and associate mentoring. Classroom association is about instructional assets and physical condition to encourage learning. Classroom administration likewise involves classroom calendars and schedules which improve student's duty to their own particular learning. In multi-grade teaching research the student's achievement results were different. Multi-grade educating research revealed no critical contrasts, constructive outcomes, and negative impacts on student's accomplishment. These research discoveries are uncertain and conflicting distinctions between multi-grade teaching and mono-grade teaching with regard to student's accomplishment. The multi-grade classroom is an instructive association found all through the world that guarantees much further execution into what's to come (Mulryan-Kyne, 2007). Research in multi-grade instruction does not give clear direction on the impact on student's accomplishment. Research reports that while actualizing a multi-grade classroom the impact on study realizing, when contrasted with the conventional mono-grade classroom, is uncertain (Brinegar, 2010, Little, 1995, Little, 2008). The move in instructive association from mono-grade to multi-grade training uncovers uncertain discoveries. Moreover, extra research has revealed that the distinction between the two classroom structures on studies accomplishment uncovers conflicting results. So as restricted to the examination not being definitive, some exploration has, truth be told, expressed that are conflicting (Kappler and Roellke, 2002, Kinsey, 2001).

The usage of multi-grade classrooms is not to a great extent an item of declining enlistment in rustic schools, Little (2008). These schools exist due to the exceptional rustic and remote area of each instructive establishment. There are favourable circumstances of numerous parts of multi-grade instruction such as mental and social advancement. Multi-grade classes are instructive associations that are common in many schools and may increase through the way any choice concerning multi-grade training ought to be founded on study accomplishment information. Despite the facts that the terms multi-grade and multi-age educating frequently utilized conversely, they referred to various circumstances. The multi-grade classes are built up because of managerial needs, for example, small number of registrations, while multi-age classes are the point at which the evaluations and showing educational programs are coordinated. In some instructive setting multi-grade classes have been conceived out of need because of declining enlistments yet in other instructive situations the multi-grade classroom is a deliberate course of action seen as a critical method for moving forward study teaching. In multi-grade schools have been viewed as a method for overhauling existing basic schools in remote regions. Distinguishes components of feasible classroom methods of teaching for educators is classroom condition and alternate methods.

Related Research Studies:-

Muthayan, (1999), characterizes Co-operative study as a teaching method where under studies exertion in a gathering sufficiently little for every understudy to partake in an unmistakably doled out aggregate assignment, without the supervision from the instructor. (Brown, 2008), said that multi-age propose the presence in a classroom setting, in a variety of age and separation among understudies. Multi-grade instructing at a school is the act of collection of both types of students of a few evaluations in a similar classroom because of the predetermined quantity of understudies in every review (UNESCO, 1989). As per Vincent (1999), self-study learning happens when understudies as itself charge their own learning. Basically, they adopt their own particular learning procedure. Companion co-operation keeps on being a successful piece of the teaching and learning process (Gnadinger, 2008), and instructive hypothesis grounded in expanding understudy learning (Chick, 2006, Swenson and Strough, 2008). Truth be told, the significance of associate coordinated effort is such a basic segment of the instructive hypothesis that understudies can't completely learn without more learning peers, for example, those in the multi-grade classroom (Wood, and Frid, 2005). Multi-grade classes are receptive to the individual needs of every understudy, not at all like the mono-grade class (Anderson and Pavan, 1993). One measure of the multi-grade classroom is to guarantee the adapting needs of the individual understudy are met through separated guideline (Tomlinson, 2005), which is more fitting than an entire class direction in a mono-grade classroom. A classroom that spotlights on the instructive hypothesis of the basic part of social cooperation furthermore, separated direction will give a wealthier learning condition to understudies (Many and Henderson, 2005. and Tomlinson, 2005).

Multi-age classes, not at all like the more well-known mono-grade classes, have an instructive hypothesis of separated guideline that reacts to the individual needs of every understudy in the class (Tomlinson, 2005). Truth be told, there is a recommendation that given the individual and interesting needs of every learner, non-graded classes ought to supplant the evaluated classroom (Anderson and Pavan, 1993). Ideal learning is not augmented in the bolt step evaluated classroom, yet in the classroom that uses separated direction and the open door for understudy peer joint effort (Fawcett and Garton, 2005).

In Blum and Diwan (2007), research studies various educational sectors indicating that in educational philosophy the multi-grade education in not a simple that could be implemented for successful achievements. For successful achievement in education by implementing multi-grade classrooms support of local population, resources and training is essential requirements, for getting possible educational benefits some hurdles must be overcome, up till now multi-grade education is a problems, remain effecting on the student learning, resources, teachers supply and the students enrollments.

It is also observed that in developing nations, in all over the world during comparison of results of the student's achievements there are no significant difference or some positive effects in finding of mono-grade and multi-grade classes. In other studies of some countries, such as Australia Lloyd (2002), Ireland -Mulryan-Kyne (2005), and England -Berry and Little (2006), specially North American research the results of student achievements in monograde classes and multi-grade classes were almost the same as compare to the developing countries.

Similarly in the researches of Lloyd (2002), Little (2004b), Mulryan-Kyne (2005) and Little (2008) on comparing the student's achievement, the result shows no difference in mono-grade and multi-grade classes. The hypothesis of Dewey's and Vygotsky of social cooperation is a vital calculate understudy taking in, the classroom association requires genuine examination to decide whether there is an impact of associate coordinated effort in understudy learning (Fawcett and Garton, 2005). Through the outline and usage of multi-grade classrooms understudies gain from more established peers through social association. It has been discovered that there are various advantages in a multi-grade classroom where studies of various ages socially collaborate, peer model, and guide (Stuart, et al., 2006). Accordingly, not exclusively is understudy learning related with social connection, additionally viable learning can as it were occur where a classroom comprises of educated companions, more often than not as a multi-grade classroom. The multi-grade classroom is an instructive association with an attention on singular understudy learning in a social setting. Taking after the social learning model of multi-grade instructing and it's connect to scholarly understudy learning, multi-grade classroom understudies appreciate a wealthier learning process that may result in future triumphs in perusing and composing (Many and Henderson, 2005).

Strength:-

Jordaan, (2006), distinguishes the accompanying four special features of multi-grade education, educating; in particular the usage of adaptable timetables, making open doors for students to wind up plainly creative and

autonomous education, in few recognized space in classes, and at last, the regular advancement of benevolent relations between instructor and learners. In multi-grade classes the instructor does not take after strict schedules but rather changes plans as indicated by the necessities and premiums of his learners in light of the fact that the entire group of students is in his direction every time. Learners can chip away at their own particular without obstruction from the instructor, particularly when learners done autonomous learning. Learners and instructors day by day communicate on an individual level and benevolent relations are created. The upsides of multi-grade instructing can be outlined as takes after: adaptable timetables, free getting the hang of, extending access to instruction, participation of learners, remediation and enhancement (Jordaan, 2006).

Weaknesses:-

The nature of instructing is traded off in multi-grade classrooms in light of the fact that the instructor's consideration is partitioned between the two groups (Mohlala, 2010). In multi-grade classrooms the instructor does not concentrate on all learners at all circumstances although youthful kids require consistent consideration. The educator can't give learners singular consideration since he or she should concentrate on learners in various evaluations with various capacities and distinctive assignments. Muthayan (1999) recognizes the disadvantages of multi-grade teaching as:-

- 1. Increased workload for instructors. Instructors need to show more evaluations in the meantime and broad arranging is required.
- 2. A testing program for cutting edge learners. Propelled learners can't get all the more difficult exercises on the grounds that the instructor concentrates on various evaluations.
- 3. The parent's relations and fears. The guardian is worried from that learning outcomes can't learn in a class where distinctive evaluations are joined.
- 4. Children from useless families. Students convey their family problems to students of the class and the danger is there so as to alternate learners may come to think about a particular issue that might go away the student powerless and humiliated.
- 5. The instructors might not be experts in every field of study. Instructors don't prodigious every one of the subjects since they spent significant time in specific subjects, however should show every one of the subjects in a multi-grade classroom.

The disadvantages can be therefore condensed as work concentrated, isolated consideration of the instructor; probability that the educator may not be a master in every one of the subjects. The instructor's consideration may be isolated in class however peer coaching and gathering work can conquer this impediment since learners will get the consideration of their associates.

Methodology:-

The research methodology covers research design, population, sampling, instrumentation and procedure of data collection for the current study. The descriptive comparative survey research method was applied to carry out the study (Best & Kahn, 1998). Gay, (1976), stated that the descriptive research method is mostly concerned with the conditions that prevail, that exist, practices, attitude that are held, beliefs and trends that are developing processes and that are on-going.

Population:-

The target population of the study was comprised of one thousand five hundred and seventy six (five hundred and thirty one male & one thousand and forty five female) primary teachers of government schools of (Tehsil Gujar Khan-Rawalpindi) Pakistan. To determine an appropriate sample size, an updated list of all schools in (Tehsil Gujar Khan-Rawalpindi) Pakistan was collected from education department. The measure of 'population' in research study must understand which concerned the subjects or data items that must be included in the study, giving the specific and relevant circumstances (Polit&Hungler, 1999).

Sampling procedures:-

Sampling is a research technique that used to select a certain number of subjects from a target population as a representative of population (Borg and Gall, 1986). A sample of two hundred teachers (both male and female) from government primary schools was taken. The selection procedure of a portion of the target population to represent it the entire population is known as sampling (LioBiondo-Wood & Haber, 1998; Polit&Hungler, 1999). For the study interest convenience sampling is deemed most suitable (De Vos, 1998).

Research Instrument:-

The questionnaire tool was used for both the teaching methodologies. The questionnaire was developed to collect the information. The items of the questions were drawn according to five-point likert scales, "strongly agree, agree, neutral, strongly disagree and disagree" (Post, D. et al., 2009). Mugenda, (2003), confirmed that the use of questionnaires is the most common instrument in the research of social science study. They said that well organized questionnaires are advantageous because the respondents can see their way around with comfort and that they are easy to compute (Annexure 'A').

Validity:-

For validation of questionnaire conducted a pilot study in boys and girls primary schools. According to Borg & Gall, (1989), a researcher can conduct a pilot study in two or three cases. The purpose of the preliminary test was to help the researcher to identify the elements that considered inappropriate and make the necessary corrections, examine the answers to check the level of ambiguity of the questions and to evaluate the responses of participant to determine the percentage. The ambiguous items were modified in more appropriate forms. It helped to determine the time required to manage the instrument. Based on the consultation with the experts, the study selected 38 items from the questionnaire and finalized for the administration. As stated by Gay, L. R., (1987), the descriptive survey research method involves gathering data to evaluate hypotheses or to answer questions about the status of the study.

Reliability:-

The research instrument was delivered to same group of participants twice in the pilot study. The scores of all tests were correlated to obtain the use of the reliability coefficient SPSS. The value of Chronbach's coefficient of Alpha of the instrument was calculated .996 which was considered to be quite suitable for the study at large scale (Gay, 2002). The Alpha .996 shows that the given 38 questions have higher internal consistency. A value equal to .700 or high is acceptable in social sciences research work.

Reliability Statistics:-

Cronbach's Alpha	N of Items
.996	38

Data Collection:-

During the research, investigator was personally visited the schools to get the data from selected sample of the study. The data collection was completed in seventeen to eighteen weeks. Straus and Myburgh, (2000), described that collection of data is a basic key and important prospective between the investigator and respondent, collection of data is an art for the researcher from the respondent in mainly efficient means. Tustin, (2006), said that one time the investigator notices the requirement of major research data and has conveyed research objectives and facts requirements, the collection of data is conducting through questioner with chosen objects.

Statistical Analysis:-

Gay, L. R., (1987), indicated the importance of the data analysis techniques and its emphasis that "the research plan must include a description of the technique or the statistical techniques used to analyze the data". The collected data were analyzed through SPSS 21 and Minitab 14. The score of responses were tabulated in to the frequencies and represented in percentage. Borg and Gall, (1998), described that the most commonly used and the confirmed standard pattern is the percentage. Z test was performed for equality of two proportions, the results were significant.

Case Processing Summary:

		%	
	Valid	200	100.0
Cases	Excluded ^a	0	.0
	Total	200	100.0

Results and Findings:-

Table 1:- Score of Teacher's Responses Regarding Students Learning

S.N	Aspects	Grade	N	Percentage	Proportion	Z-	P-
						Value	Value
1	Teaching enhances increased access	Mono-grade	200	91.5	0.91	9.88	0.000
	to education	Multi-grade	200	51.5	0.51		

2	Teaching enhances improved	Mono-grade	200	66.5	0.66	11.95	0.000
	performance to education	Multi-grade	200	16	0.16		
3	Learning outcomes in multi-grade	Mono-grade	200	53.5	0.53	4.01	0.000
	classes is better than mono-grade	Multi-grade	200	34	0.34		
	classes						
4	Students learn better in multi-grade	Mono-grade	200	47.5	0.47	4.69	0.000
	than mono-grade classes	Multi-grade	200	25.5	0.25		
5	Students are more motivated in	Mono-grade	200	57	0.57	8.65	0.000
	learning	Multi-grade	200	18.5	0.18		
6	In grade classes, syllabus can be	Mono-grade	200	60	0.60	7.19	0.000
	completed in time	Multi-grade	200	26.5	0.26		
7	Teaching is promoting group work	Mono-grade	200	23	0.23	10.13	0.000
	and collaboration among students	Multi-grade	200	68	0.68		
8	In teaching students give timely	Mono-grade	200	69	0.69	9.82	0.000
	feedback to their teachers	Multi-grade	200	25	0.25		

Table 2:- Score of Teacher's Responses Regarding Teaching Methodology

S.N	Aspects	Grade	N	Percentage	Proportion	Z-	P-
				_	_	Value	Value
9	Teaching provides opportunity for the	Mono-grade	200	76.5	0.76	12.18	0.000
	enhancement of learning by the lower grade level group through	Multi-grade	200	24.5	0.24		
	exposure to upper grade level						
10	Teaching provides opportunity for	Mono-grade	200	68	0.68	14.14	0.000
10	students to learn through peer tutoring	Multi-grade	200	11.5	0.08	14.14	0.000
11	Is teaching encourage students to	Mono-grade	200	77.5	0.77	13.88	0.000
- 1	participate in group studies	Multi-grade	200	20.5	0.20	10.00	0.000
12	Is teaching is easier by approach	Mono-grade	200	80.5	0.80	19.18	0.000
	2 11	Multi-grade	200	11.5	0.11		
13	Assessment is easier in grade	Mono-grade	200	79.5	0.79	18.42	0.000
	teaching approach	Multi-grade	200	12	0.12		
14	Teaching is not an inferior strategy of	Mono-grade	200	75	0.75	13.37	0.000
	teaching	Multi-grade	200	19.5	0.19		
15	Teachers of grade classes are	Mono-grade	200	38.5	0.38	8.74	0.000
	inadequately prepared for teaching such classes	Multi-grade	200	78	0.78		
16	Grade class is considerably more	Mono-grade	200	16.5	0.16	8.89	0.000
	difficult to teach	Multi-grade	200	55.5	0.55		
17	Is teaching, too demanding in modern	Mono-grade	200	74	0.74	13.04	0.000
	age	Multi-grade	200	19.5	0.19		
18	Teaching is an innovation	Mono-grade	200	79.5	0.79	16.47	0.000
		Multi-grade	200	16	0.16		

ISSN: 2320-5407

 Table 3: Score of Teacher's Responses Regarding Student's Participation

S.N	Aspects	Grade	N	Percentage	Proportion	Z-	P-
						Value	Value
19	Teaching is concerned student's	Mono-grade	200	33	0.33	8.88	0.000
	social skill development	Multi-grade	200	73.5	0.73		
20	Provides reinforcement of earlier	Mono-grade	200	21	0.21	12.68	0.000
	learning for the upper grade level	Multi-grade	200	74.5	0.74		
	students						
21	In teaching grouping the students	Mono-grade	200	21.5	0.21	12.68	0.000
	according to their abilities	Multi-grade	200	75	0.75		
22	In teaching it is easier for students to	Mono-grade	200	57	0.57	3.14	0.002
	learn what others are taught	Multi-grade	200	41.5	0.41		
23	Is teaching engaging, upper grades	Mono-grade	200	31	0.31	4.68	0.000
	students to support lower grade	Multi-grade	200	53.5	0.53		
	students						
24	In teaching, there is lower time on	Mono-grade	200	28.5	0.28	11.43	0.000
	task for students	Multi-grade	200	78	0.78		
25	In teaching, there is less time for	Mono-grade	200	22.5	0.22	13.00	0.000
	direct instructions	Multi-grade	200	77	0.77		

Table 4:- Score of Teacher's Responses Regarding Teaching Difficulties

S.N	Aspects	Grade	N	Percentage	Proportion	Z-	P-
	_				_	Value	Value
26	Teachers do not have learning	Mono-grade	200	19.5	0.19	11.21	0.000
	materials for their teaching in classes	Multi-grade	200	68	0.68		
27	Teacher used the local available	Mono-grade	200	73.5	0.73	14.57	0.000
	materials as teaching aids	Multi-grade	200	15	0.15		
28	Teacher students ratio is less in	Mono-grade	200	16.5	0.16	14.51	0.000
	multi-grade classes	Multi-grade	200	75	0.75		
29	Teaching and learning materials for	Mono-grade	200	80	0.80	17.14	0.000
	multi-grade classes are adequately	Multi-grade	200	15	0.15		
	available						

Table 5:- Score of Teacher's Responses Regarding Parental Approaches

S.N	Aspects	Grade	N	Percentage	Proportion	Z-	P-
						Value	Value
30	Parents like multi-grade or mono-	Mono-grade	200	55.5	0.55	6.54	0.000
	grade teaching approaches	Multi-grade	200	25	0.25		
31	Is grade, teaching is less expensive	Mono-grade	200	20	0.20	13.19	0.000
	for community to organize	Multi-grade	200	75	0.75		
32	In teaching, you think that distance	Mono-grade	200	80	0.80	17.38	0.000
	education is credible	Multi-grade	200	14.5	0.14		
33	Teaching is able to cope with parental	Mono-grade	200	76	0.76	13.53	0.000
	concern about effects of grades placement	Multi-grade	200	20	0.20		

S.N	Aspects	Grade	N	Percentage	Proportion	Z-	P-
						Value	Value
34	Working condition of your school is	Mono-grade	200	93	0.93	21.76	0.000
	satisfactory	Multi-grade	200	20	0.20		
35	Grade teaching in multi-grade	Mono-grade	200	84	0.84	15.85	0.000
	schools be abolished	Multi-grade	200	22	0.22		
36	Is teaching, benefits the multi-grades	Mono-grade	200	22	0.22	14.24	0.000
	schools for students	Multi-grade	200	80	0.80		
37	Multi-grade is more actively bases	Mono-grade	200	77	0.77	13.88	0.000
	that mono-grade approach	Multi-grade	200	20	0.20		
38	Teacher can pay attention to every	Mono-grade	200	63.5	0.63	8.96	0.000
	student in these grade classes	Multi-grade	200	23	0.23		

Table 6:- Score of Teacher's Responses Regarding Working Conditions of Schools

Findings:-

Following are the findings of the current research study:

- 1. The z test for equality of two proportions in two methods of teaching is not equal as the p value is 0.000. The significant difference between percentages of mono-grade method of teaching is 91.5% higher positive perceptions and multi-grade method of teaching is 51.5% lower perceptions reflects that maximum teachers are supporting that the teaching enhances increased access to education in mono-grade method of teaching.
- 2. The percentage of mono-grade method of teaching is 66.5% and multi-grade method of teaching is 16% the z test for equality of two proportions in two methods of teaching is not equal. The p-value is less than 0.01, which shows that results are significant and the teachers are agreed to that in mono-grade method of teaching enhances improved performance to education.
- 3. In two proportions of two method of teaching the percentage of mono-grade method of teaching is 53.5% and multi-grade method of teaching is 34% the z test of two proportions are not equal. The p value is less than 0.000, which shows that the results are significant. In teacher's opinion the learning outcome in mono-grade method of teaching is better than that of multi-grade method of teaching.
- 4. The significant difference in teacher's responses in two methods of teaching i.e. mono-grade method of teaching the percentage is 47.5% and multi-grade method of teaching is 25.5% and the p value is 0.000, which mean that the most of the teachers are supporting to the learning in mono-grade method of teaching is better.
- 5. The teacher's responses show that the percentage of mono-grade method of teaching is 57% and multi-grade method of teaching is 18.5%. The z test for equality of two proportions is significant as the p value is 0.000 it means that the two methods have different approach in respect of learning motivation of students. For learning approach mono-grade method of teaching is better as its proportion is high.
- 6. The statistically significant difference between the two proportions for two methods of teachings demonstrates that the proportion for mono-grade method of teaching is high the percentage of mono-grade method of teaching is 60% and multi-grade method of teaching is 26.5% and the p value is 0.000, which reflects that the teachers are in favour of that the syllabus can be completed in time in mono-grade method of teaching.
- 7. On the basis of analysis the percentage of mono-grade method of teaching is 23% and multi-grade method of teaching is 68% and the z test of two proportions shows that the results are significant and p-value is 0.000. In teacher's opinion the students can only promote group work and collaboration among students in mono-grade method of teaching.
- 8. The analysis shows the differences in percentage of mono-grade method of teaching is 69% and multi-grade method of teaching is 25%. The z test for equality of two proportions in two methods is not equal. This test clearly shows that p-value is less than 0.01, the results are significant and it shows that the students can only give feedback timely to their teachers in mono-grade method of teaching.
- 9. The p value 0.000 indicating the difference between the two proportions in two methods of teaching is not equal. The percentage of mono-grade method of teaching is 76.5% and the multi-grade method of teaching is 24.5% clearly shows that the results are significant and teachers are agreed that the enhancement of learning by lower grade level group through exposure to upper grade level students could be possible in mono-grade method of teaching.
- 10. The significant difference shows that the percentage of mono-grade method of teaching is 68% and multi-grade method of teaching is 11.5%. The z test for equality of two proportions shows that the p-value is less than 0.01,

- which prove that the results are significant. Teachers are agreed to that the students can learn better through peer tutoring in mono-grade method of teaching.
- 11. The p value 0.000 shows that the test results are significant. The percentage of mono-grade method of teaching is 77.5% and multi-grade method of teaching is 20.5%. It shows that the results are significant and teachers said in their opinion that the student can be encouraged to participate in group study in the mono-grade method of teaching is better.
- 12. The result of the study indicates that the percentage of mono-grade method of teaching is 80.5% and the multi-grade method of teaching is 11.5%. The z test for two proportions of two method of teaching, the p-value is less than 0.01, which shows that the results are significant. This means that the teachers are agreed that the teaching is easier in mono-grade method of teaching.
- 13. It reveals that there was significant difference in percentage of the mono-grade method of teaching is 79.5% and the multi-grade method of teaching is 12% and in z test of two proportions for two method of teaching the p value is 0.000. It means that teachers are in favour of that the assessment is easier in mono-grade method of teaching.
- 14. The z test shows that the proportion is not equal for two methods as p value is approaching to zero. The percentage of mono-grade method of teaching is 75% and multi-grade method of teaching is 19.5%. It means that most of the teachers are supported to that the teaching is not an inferior strategy.
- 15. The significant difference between the two methods of teaching shows that the percentage of mono-grade method of teaching is 77 38.5% and the multi-grade method of teaching is 78%. Z test for equality of two proportions null hypothesis has been rejected. It shows that teachers asked that preparation for multi-grade method of teaching is unsatisfactory. Most teachers are agreed that preparation in mono-grade method of teaching is more satisfactorily than that in multi-grade method of teaching.
- 16. The percentage difference was in mono-grade method of teaching is 16.5% and the multi-grade method of teaching is 55.5%. The p value indicating that the difference for equality of two proportions, mono-grade method of teaching and multi-grade method of teaching is very low. In this case null hypothesis is rejected.
- 17. From the analysis it is observed that the percentage of mono-grade method of teaching is 74% and the multi-grade method of teaching is 19.5% the p value of two proportions is 0.000. It shows that the test result of two proportions is not equal and null hypothesis is rejected. It leads researcher to decide that in modern age mono-grade teaching method is more demanding.
- 18. The analysis shows that the percentage of mono-grade method of teaching is 79.5% and multi-grade method of teaching is 16%. The p value is 0.000. It reflects that he teacher's perception is mono-grade method of teaching is an innovation.
- 19. It is observed that the majority of teacher whose are the respondent of the study asking that the possibility of student's social skill development in multi-grade method of teaching is difficult in than that of mono-grade method of teaching. In this case p-value is less than 0.001.
- 20. After analysis of the data it is found that in teacher's opinion the possibilities to provide reinforcement of earlier learning for the upper grade level students in multi-grade classes. As the percentage of mono-grade method of teaching is 21% and the multi-grade method of teaching is 74.5%. In this case z test for equality of two proportions shows that p value is 0.000 and null hypothesis has been rejected which shows that there is significant difference between mono-grade and multi-grade methods of teaching.
- 21. The score of teacher's responses shows that the percentage of mono-grade method of teaching is 21.5% and the multi-grade methods of teaching is 75% and p value is very low in this case. The statement also shows that grouping the students for multi-grade method is unsatisfactory. Mono-grade method of teaching is more satisfactory than that in multi-grade method.
- 22. The responses of the teachers about the teaching for children to learn what others are taught are almost equal as p-value is close to 1. The percentage of mono-grade method of teaching is 57% and the multi-grade method of teaching is 41.5%. It shows that teachers are agreed with both methods.
- 23. The result shows that the percentage of mono-grade method of teaching is 31% and the multi-grade method of teaching is 53.5%. The z test shows that the results for equality of two proportions are significant as the p value in this case is 0.000. It means that the teachers are agree with both methods and they are asking that in both methods the students of upper grade are supporting to lower grade students.
- 24. The percentage of mono-grade method of teaching is 28.5% and the multi-grade method of teaching is 78% and z test shows p value is 0.000 it reflects that the results are significant. Teachers are in favour of that there is lower time for students to complete their task of class in multi-grade method of teaching as compare to monograde method of teaching.

- 25. The differentiation between the two methods of teaching is proving it that the results are significant. As the percentage of the mono-grade method of teaching is 22.5% and multi-grade method of teaching is 77% and the p value is less than 0.001. It shows teachers are agreed that there is less time for direct instructions to students in multi-grade class.
- 26. There was a big difference between the percentages of mono-grade method of teaching is 19.5% and the multi-grade method of teaching is 68%. The z test result show the p value is less than 0.001. It shows that the results are significant and more teachers are supporting that the teachers do not have sufficient learning materials for their teaching in multi-grade classes.
- 27. There is significance difference between the results as the percentage of mono-grade method of teaching is 73.5% and the multi-grade method of teaching is 15%. The z test for equality of two proportions in two methods of teaching is not equal the p-value is less than 0.01, teachers are supporting to that the teacher used the local available materials as teaching aids in mono-grade method of teaching.
- 28. The result is representing that the percentage of the mono-grade method of teaching is 16.5% and the multi-grade method of teaching is 75%, the z test result is not equal as p-value is less than 0.001 it shows that the results are significant and more teachers are supporting to that the teachers students ratio is less in multi-grade classes.
- 29. As represented by the percentage of the mono-grade method of teaching is 80% and the multi-grade method of teaching is 15%. The z test for equality of two proportions in two methods of teaching is not equal. In this case p-value is less than 0.01, it shows that the results are significant and teachers are supporting to that the teaching and learning materials for multi-grade classes are adequately available in mono-grade classes.
- 30. The calculated value shows that the percentage of the mono-grade method of teaching is 55.5% and the multi-grade method of teaching is 25%, the result shows that the proportion of two methods of teaching is not equal. It is reflected by the result and responses of the teachers that parents like mono-grade method of teaching. As proportions for mono-grade method of teaching is greater than that of multi-grade method.
- 31. It is indicated in the analysis that the teacher's opinion in the two proportions shows that the grade teaching is less expensive for community to organize the teaching in multi-grade method. In this case p-value is very low. The percentage of the mono-grade meth of teaching is 20% and the multi-grade method of teaching is 75%. In this case null hypothesis is rejected.
- 32. The percentage of mono-grade method of teaching is 80% and the multi-grade method of teaching is 14.5%. The z test for equality of two proportions is not equal. The p-value is less than 0.01, it shows that the results are significant and more teachers are supporting to that in teaching distance education is credible.
- 33. According to test results the percentage of mono-grade method of teaching is 76% and the multi-grade method of teaching is 20%. The z test results are significant and p value is also 0.000 which lead researcher to decide that teaching is able to cope with parental concern about effects of grades placement.
- 34. The percentage of the mono-grade method of teaching is 93% and the multi-grade method of teaching is 20%. The z test for equality of two proportions is not equal. This test clearly shows that the p-value is less than 0.01, it means that the results are significant and teachers are supporting to working conditions of their schools were satisfactory in mono-grade method of teaching.
- 35. The obtained data is representing that the results are significant as p value is less than 0.001. The percentage of the mono-grade method of teaching is 84% and the multi-grade method of teaching is 22% in this proportion teachers are also in favour of teaching in multi-grade being abolished from the multi-grade schools.
- 36. The maximum teachers fall in agreement with the teaching, benefits the multi-grades schools for students. As the percentage of mono-grade method of teaching is 22% and the multi-grade method of teaching is 80%. In this case z test for equality of two proportions shows p-value is less than 0.001 it prove that the results are significant and null hypothesis is rejected.
- 37. It is described by the calculated value that the percentage of the mono-grade method of teaching is 77% and the multi-grade method of teaching is 20%. The p-value is less than 0.001 it mean that the results are significant teachers are agreed that the mono-grade method of teaching is better than that of multi-grade method of teaching.
- 38. It is identified by the results that the equality of two proportions for two method of teaching i.e. mono-grade method of teaching and the multi-grade method of teaching is significant. The percentage of the mono-grade method of teaching is 63% and the multi-grade method of teaching is 23% the p-value is less than 0.001 it reflects that the teacher are in favor of mono-grade method and their opinion is that in this method the teacher can pay more attention to students.

Discussion:-

The study was conducted to evaluate the effectiveness by comparing the multi-grade method of teaching with that of mono-grade method of teaching at primary level. Two hundred teachers (primary level) from total population of one thousand five hundred and seventy six (five hundred and thirty one male and one thousand and forty five female) from government schools was selected for the research study. Sample was taken by applying convenience sampling technique. The purpose of the study was to determine the difference in student achievement level in between the multi-grade and mono-grade classrooms. The research studies in multi-grade and mono-grade teaching on student achievement the findings of this study revealed that the teacher at primary level schools had low positive perception of the effect of multi-grade teaching on the student's performance in primary schools. This position might be due to the fact they recognized the necessity of multi-grade as a result of lack of adequate teachers. Another hand the use of multi-grade teaching was a matter of necessity rather than orientation or training.

Responses of the study indicated high association among the mono-grade method of teaching. The association specified the greater support to mono-grade method of teaching strategies. The study revealed that the perception of the responses about the student learning in mono-grade method of teaching strategies is statistically high the majority of responses had high positive perception. About the teaching methodology in mono-grade method of teaching the teacher's responses were quite significant and more teachers are supporting to mono-grade method of teaching. In student participations in mono-grade classes, the responses opinions about the mono-grade participation remain high and responses are agreed that the learning outcome in mono-grade strategy is better. It is also proved in the study of Higgins (2005), who observed that the finding of the teachers in mono-grade teaching strategy were high positive perception. It is supported by the comprise studies of Kappler and Roellke (2002) that the finding of the results of student achievement in multi-grade classrooms compared to that in mono-grade classrooms vary.

The findings of the current study reveal that the responses about multi-grade method of teaching strategies. In teacher's perception regarding the students learning in multi-grade teaching strategies. The teaching methodology in multi-grade method of teaching, the teacher's responses were quite significant. It is supported by the research study of Gnadinger (2008) that the peer collaboration continues to be an effective part of the teaching and learning process. As research studies of Gerard (2005), Lloyd (2002), Kyne (2007), Pratt (1986), described that the multi-grade classrooms are a transcendent instructive structure in creating countries, such like, Sri Lanka, Columbia, and Vietnam. In research studies of Aksoy (2008), Benveniste and McEwan (2000), Blum and Diwan (2007), Little (2004a), Little (2008), Pridmore (2007), Vincent (1999), Foscoet al (2004), it revealed that the contrast between multi-grade classroom association and mono-grade teaching on understudy accomplishment, discoveries remain uncertain. In some other research, in Goodlad and Anderson (1959), Pratt (1986), Veenman (1987), Miller (1991), Gorrell (1998), Veenman (1995), Vincent (1999), Little (2004a), Higgins (2005), found no difference in student learning between the multi-grade and mono-grade classrooms.

The participations of the student in multi-grade classes, the teacher's opinion about the multi-grade participation remain low positive perception. In research study of Tomlinson (2005) it is indicated that the more familiar monograde classes, have an educational theory of differentiated instruction that responds to the individual needs of each student in the class. Little, *et al.*, (2004) express that notwithstanding a requirement for legitimate concerning showing multi-grade classes, instructors likewise recognized large strength of students" non-appearance, visit changes in grade blends and absence of course books as difficulties that they are confronted with in multi-grade schools.

The responses of teacher's about the teaching difficulties in multi-grade teaching strategy indicating the statistically significantly high. As per Create, (2008) the difficulties of multi-grade teaching and learning are that the nationwide educational modules improvement and educator preparing programs are for the most part in view of a model of mono-grade teaching and learners in accepted multi-grade schools need to fight for them. It is also observed in research studies of Miller (1990), Burns and Mason, (1998) that the teachers had high positive perception of organizational effect on the student achievements in multi-grade teaching.

The parental approaches in the multi-grade teaching the response of teacher reflect nothing. The current study supported by the previous research of Cornish, (2009) that the social interaction continues to be an important part of the educational process. It is also observed in the studies of Many and Henderson, (2005), Rouse and Barrow, (2006) that the societal, parental and educational factors influence student learning. In study of Myrberg and Rosen, (2008) it reflects that the parental education as an effect on student achievement. Parental education levels, which

include the number of resources in the home and attention to literacy has an association with children's achievements in school.

About the working conditions of the schools, in teacher's opinion about the multi-grade classrooms were not appropriate. In study of Fosco, *et al.*, (2004) identified that multi-grade classrooms also found connection with the theoretical concept of cognitive development, reading ability and classroom type. In some other researches, in Goodlad and Anderson, (1959), Pratt (1986), Veenman (1987), Miller (1991), Gorrell (1998), Veenman (1995), Vincent (1999), Little (2004a), Higgins (2005), found no difference in student learning between the multi-grade and mono-grade classrooms.

In several research studies the finding contribute to learning theories on differentiated instruction and peer collaboration and social interaction, Tomlinson, *et al.*, (2003). In other studies of Cornish (2009), Gnadinger (2008), revealed that in modern era multi-grade classrooms, the basic philosophy of classroom organization. In research studies of Many and Henderson (2005), Dewey (1916), Vygotsky (1998), Fosco, *et al.*, (2004), Wood and Frid (2005), Fawcett and Garton (2005), Geisler*et al* (2009), Reis *et al* (2011), Stuart, et al., (2006), Cornish (2009), Gnadinger (2008), Chick (2006), Swenson and Strough (2008), the finding in the theoretical basis that student learn best through differential instruction and social interaction and peer collaboration. In other research, studies the results repots were in Kinsey (2001), inconsistent, in Kappler and Roellke (2002), mixed, in Cornish (2009), disputed, in Little (1995), Brinegar (2010) and Little (2008), inconclusive in Fosco, *et al.*, (2004) and Garnish (2009) controversial. In another research study of Cheadle (2008), the scio-economic status factor has long had an influence on student achievement. The current study support the added factors, school location in rural area, parental educational level and parental socio-economic status affecting on student learning. In Newfoundland and Labrador (2009) study indicating a significant issue of student enrolment declining in small and rural areas schools.

In teacher's opinion regarding the teaching difficulties in mono-grade method of teaching strategy quite often. About the parental approaches in the mono-grade teaching the response of teacher reflect quite high that mean teacher's supporting that the learning motivation in mono-grade teaching is better. The working conditions of their schools, the teacher's perception about the mono-grade class rooms are quite satisfactory. The finding in the study, opinion of the responses is that in mono-grade method of teaching at primary level, students can enhance their increased access to education, improved their performance, develop their social skills, by this method provide opportunities to students to enhance their learning, provides reinforcement of earlier learning, easier for students to taught more, enhance students grades, students will be more motivated in learning, class syllabus can be completed in time, teacher can pay attention to every student, this method fulfill parents demands of modern age, students learn in less time by mono-grade method, promoting group work collaboration, teaching is easier, teacher can pay more attention to students and parents also like mono-grade method of teaching significantly.

Conclusion:-

The purpose of the study was to determine if there is exists a difference in student learning and achievements levels between the mono-grade method of teaching and multi-grade method of teaching.

The study was conducted to compare the effectiveness of multi-grade teaching with that mono-grade teaching at primary level. The results of the research study revealed that there is a statistically significant difference between the mono-grade method of teaching and the multi-grade method of teaching. With the help of findings of the study, through the questionnaire collected data (open-ended questions) based on teacher's responses the following conclusion was drawn:-

- 1. The perception of the teacher's about the student learning in mono-grade method of teaching strategies is statistically high the majority of teachers had high positive perception.
- 2. About the teaching methodology in mono-grade method of teaching the teacher's responses were quite significant and more teachers are supporting to mono-grade method of teaching.
- 3. In student participations in mono-grade classes, the teacher's opinions about the mono-grade participation remain high and teachers are agreed that the learning outcome in mono-grade strategy is better.
- 4. The teacher's responses about the teaching difficulties in mono-grade teaching strategy quite often.
- 5. About the parental approaches in the mono-grade teaching the response of teacher reflect high scores that mean teacher's supporting that the learning motivation in mono-grade teaching is better.
- 6. The working conditions of their schools, the teacher's perception about the mono-grade class rooms were quite satisfactory.

- 7. In teacher's perception regarding the students learning in multi-grade teaching strategies is statistically low indication.
- 8. The teaching methodology in multi-grade method of teaching, the teacher's responses were quite significant and the percentages are low comparing to mono-grade.
- 9. The participations of the student in multi-grade classes, the teacher's opinion about the multi-grade participation remain low positive perception.
- 10. The responses of teacher's about the teaching difficulties in multi-grade teaching strategy indicating the statistically significantly high.
- 11. The parental approaches in the multi-grade teaching the response of teacher reflect nothing.
- 12. In teacher's opinion, the working conditions of the schools about the multi-grade classes were not up to the standards.

Recommendations:-

The following recommendations are suggested, which are produced by the outcomes of the study;

- 1. In this modern age, the study recommended that in all private and governmental institutions, have to apply mono-grade method of learning for students, as by applying this method our educational level will influence by more learning, will clear concepts of students and will also be helpful to improve their study level as well as they can speak confidently about their learning.
- 2. In multi-grade classes, there is less scope of learning for junior grade classes in the presence of senior students, junior students get confuse and afraid of by their seniors, hence mono-grade method of teaching is recommended for this level.
- 3. In a multi-grade class teachers were unable to give full attention to all students. So mono-grade method is being recommended for this aspect.
- 4. The challenges faced by multi-grade teachers could be avoided with provision of specific multi-grade training and support.
- 5. Mono-grade classrooms should tend to be characterized by undifferentiated whole class teaching, in multi-grade classes student should have more opportunity to engage small group work.
- 6. For the ease of teachers to pay full attention to all the students in populated class the mono-grade method of teaching is being recommended. This is also recommended for the provision of enhancement of our educational system to slowly upgrade to international standards for the progressive future of students.

Recognition:-

The researcher did not receive any ordinary, special and specific grant from any funding agency in the, commercial, public or not-for-profit sectors.

References:-

- 1. Aksoy, N., (2007). Multi-grade schools in Turkey: An overview. *International Journal of Educational Development*.
- 2. Aksoy, N., (2008). Multi-grade schooling in Turkey: An overview. *International Journal of Educational Development*, 28(2), 218-228.
- 3. APEID/UNESCO, (1989). Multi-grade teaching in single teacher primary schools. Asia and the Pacific programme of Educational innovation and development. UNESCO Principal Regional office for Asia and the Pacific Bangkok, Thailand.
- 4. Anderson, R. H. and B. N.Pavan., (1993). Nongradedness: Helping It to Happen. Lancaster, PA: Technomic.
- 5. Benveniste, L. A., & McEwan, P. J., (2000). Constraints to implementing educational innovations: The case of multi-grade schools. *International Review of Education*, 46(1/2), 31-48.
- 6. Berry, C. and Little. A. W., (2006). Multi-grade teaching in London, England. In A. W. Little (Ed.), *Education for all and multi-grade teaching*: Challenges and opportunities, Netherlands. p. 67-86.
- 7. Best, J.W, & Kahn, J.V., (1998). *Research in Education* (8th, Ed) Boston; Allyn and Bacon.
- 8. Beukes, C. G., (2006). Managing the Effects of Multi-grade Teaching on Learner Performance in Namibia: Dissertation. *Magister Education. Johannesburg*: University of Johannesburg.
- 9. Black, T. R., (1999). Doing quantitative research in the social sciences: *An integrated approach to research design, measurement and statistics*. Thousand Oaks, CA: SAGE Publications.
- 10. Blum, N. &Diwan, R., (2007). Small, multi-grade schools and increasing access to primary education in India: National context and NGO initiatives. *Consortium for Research on Educational Access*, Transitions & Equity.

- 11. Borg, W. R. & Gall, M. D., (1986). Educational Research, Longman: New York.
- 12. Borg, W. R. & Gall, M. D., (1989). Educational Research: An Introduction 5th. Eden. New York: Longman.
- 13. Borg, W. R. & Gall, M. D., (1998). Educational Research: An Introduction 5th. Eden. New York: Longman.
- 14. Brinegar, K., (2010). 'I feel like I'm safe again:' A discussion of middle grades organizational structures from the perspective of immigrant youth and their teachers. *Research in Middle Level Education*, 33(9), 1-14.
- 15. Brown, (2008). Multi-grade Teaching: A Review of Selected Literature and Implication for Educator Education and Training in South Africa. East London: University of Fort Hare.
- 16. Brown, B. A., (2010). Teachers' accounts of the usefulness of multi grade teaching in promoting sustainable human development related outcomes in rural South Africa. *Journal of Southern African Studies*. p. 189-207.
- 17. Burns, R. B. and D. A. Mason., (1998). Class formation and composition in elementary schools: *American Educational Research Journal*. p. 739-772.
- 18. Cheadle, J. E., (2008). Educational investment, family context, and children's math and reading growth from Kindergarten through the Third Grade. *Sociology of Education*, 81(January), 1-31.
- 19. Chick, K. A., (2006). Fostering student collaboration through the use of historical picture books. *Social Studies*, 97(4), 152-157.
- 20. Cohen, A., (1993). A new educational paradigm. *Phi Delta Kappan*, 74 (10): 791 795. Consortium for Research on Education Access.
- 21. Cornish, L., (2002). Differentiation in mixed-grade classrooms. *Talent Ed*, 26(1/2), 13.
- 22. Cornish, L., (2009). Teaching the world's children: *Theory and practice in mixed-grade classes*. Paper presented at the International Symposium for Innovation in Rural Education, Armidale, Australia.
- 23. Create, (2008). Size matters for EFA: *Policy brief. Cress, Consortium for Research on Educational Access, Transistions and Equity*, Accessed online at: http://www.create-rpc.org on 26 March 2014.
- 24. De Vos, A. S., Strydom, H., Fouche, C. B., &Delport, C. S. L., (1998). *Research at grass roots*. Pretoria: Van Schaik.
- 25. Dewey, J., (1916). Democracy and education. *An introduction to the philosophy of education*. (1966 Ed.). New York: Free Press.
- 26. Fawcett, L. M. and A. F. Garton., (2005). The effect of peer collaboration on children's problem-solving ability. *British Journal of Educational Psychology*, pp. 75, 157-169.
- 27. Fosco, A. M., Schleser, R., &Andal, J., (2004). Multiage programming effects on cognitive development level and reading achievement in early elementary school children. *Reading Psychology an international quarterly*, 25(1), 1-17.
- 28. Gay, L. R., (1976). Education Research: Competencies for Analysis and Application. Ohio: Merill Publishers, Co. of Teaching in Kenya. Implications for Teacher Induction Policies and Programmes. In Journal of In-Service Education. An International Journal of Professional Development. Edited by Tony Bates, Thompson and Marion.
- 29. Gay, L. R., (1987). Educational Research: *Competencies for Analysis and Application*. 3rd.edn. London: Merrill Publishing.
- 30. Gay, L.R., (2002). Educational Research: *Competencies for Analysis and Application*, National Book Foundation, Lahore.
- 31. Geisler, J. L., Hessler, T., Gardner, R., & Lovelace, T. S., (2009). Differentiated writing interventions for high-achieving urban African American elementary students. *Journal of Advanced Academics*, 20(2), 214-247.
- 32. Gerard, M., (2005). Bridging the gap: Towards an understanding of young children's thinking in multiage groups. *Journal of Research in Childhood Education*.
- 33. Gnadinger, C. M., (2008). Peer-mediated instruction: Assisted performance in the primary classroom. *Teachers and Teaching: Theory and Practice*, 14(2), 129-142.
- 34. Government of Newfoundland and Labrador, (2009). Educational statistics. St. John's, NL: Queen's Printer.
- 35. Goodlad, J. and R. Anderson., (1959). The non-graded elementary school. New York: Brace.
- 36. Gorrell (1998). A study comparing the effect of multiage education practices versus traditional education practices on academic achievement. Unpublished master's thesis, Salem-Tokyo University.
- 37. Hargreaves, E., (2001). Assessment for learning in the multi-grade classroom. *International Journal of Educational Development*, 21 (6), 553-560.
- 38. Higgins, C. (2005). *Multi-grade Teaching*: A viable Option for Sub-Saharan Africa? Retrieved 1-12-2009 at amulkeen@wordbank.org
- 39. Jordaan, V. A. (2006). Facilitators course on multi-grade teaching. Facilitators guide with resources.

- 40. Juvane, V., (2005). Redefining the Role of Multi-grade Teaching. Working Document Prepared for the Ministerial Seminar on Education for Rural People in Africa: Policy Lessons, Options and Priorities. Addis Ababa, Ethiopia, September 7-9.
- 41. Kappler, E. and C. Roellke., (2002). The promise of multi-age grouping. Kappa Delta Pi Record. p. 165-169.
- 42. Kinsey, S. J. (2001). Multiage grouping and academic achievement. *Clearinghouse on Elementary and Early Childhood Education*. Retrieved from http://ericeece.org
- 43. Little, A., (1995). Multi-grade teaching: *A review of practice and research*. Education Research, Serial No. 12. London: Overseas Development Administration.
- 44. Little, A. W., (2004a). Learning and teaching in multi-grade setting. *Background paper for the Global Monitoring Report*. Available Online. http://portal.unesco.org (accessed 05 March 2010).
- 45. Little, A.W., (2004b). Learning and teaching in multi-grade settings. *Background paper prepared for the Education for All Global Monitoring Report 2005*, The Quality Imperative. United Nations Educational, Scientific and Cultural Organization.
- 46. Little, A. W., Pridmore, P., Bajracharya, H. &Vithanaphathivana, M., (2004). Learning and teaching in multigrade settings. *A final report to DFID*.
- 47. Little, A. W., PRIDMORE, P., BAJRACHARYA, H. & ITHANAPHATHIVANA, M., (2007). Learning and teaching in multi-grade settings. *A final report to DFID*.
- 48. Little, A. (2008). Increasing access through multi-grade teaching and learning. *Consortium for Research on Education, Access, Transitions & Equity*. Saarbrücken: Lambert Academic Publishing.
- 49. Lloyd, L., (2002). Multiage classes: What research tells us about their suitability for rural schools? *Education in Rural Australia*, 12(2), 1-14.
- 50. LoBiondo-Wood, G., & Haber, J., (1998). Nursing research: *Methods and critical appraisal for evidence-based practice*. Elsevier Health Sciences.
- 51. Many, J. E. and S. D. Henderson., (2005). Developing a sense of audience: *An examination of one school's instructional contexts*. Reading Horizons. p. 321-348.
- 52. Miller, B., (1990). A review of the quantitative research on multi-grade instruction. *Research in Rural Education*. p. 1-8.
- 53. Miller, B., (1991). Teaching and Learning in the Multi-grade Classroom: *Student Performance and Instructional Routines*. (ERIC Document Reproduction Service No. ED335178)
- 54. Mohlala, T., (2010). One teacher, two grades. The Teacher: 31, May/June.
- 55. Mugenda, O.M and Mugenda A.G., (2003). Research Methods: *Quantitative and Qualitative Approaches*; Nairobi: African Centre for Technology Studies.
- 56. Mulcahy, D. M., (2000). Multiage and multi-grade similarities and difference. Retrieved from http://www.mun.ca/educ/faculty/mwatch/win2000/mulcahy.html
- 57. Mulcahy, D. M., (2009, October). Rural and remote schools: A reality in search of a policy. Paper presented at the EDGE Conference, St. John's, NL, and Canada. 139
- 58. Mulryan-Kyne, C., (2005). The grouping practices of teachers in small two-teacher Primary Schools in the Republic of Ireland. *Journal of Research in Rural Education*, 20(17), 1-14.
- 59. Mulryan-Kyne, C., (2007). The preparation of teachers for multi-grade teaching. *Teaching and Teacher Education: An International Journal of Research and Studies*, 23(4), 501-514.
- 60. Muthayan, S., (1999). Case Studies of Multi-grade Teaching in India and Canada: *Implications for improving primary school effectiveness*. Paper presented at the International Seminar of Researches in School Effectiveness at Primary Level. New Delhi: NCERT.
- 61. Myrberg, E., & Rosén, M., (2008). A path model with mediating factors of parents' education on students' reading achievement in seven countries. *Educational Research and Evaluation*, 14(6), 507-520.
- 62. National Education Commission, (2003). *Proposals for a national policy framework on general education in Sri Lanka*. Sri Lanka: National Education Commission.
- 63. Nawab, A. &Baig, S. R., (2001). The possibilities and challenges of multi-grade teaching in rural Pakistan. *International Journal of Business and Social Science*, Vol. 2 no. 15.
- 64. Pardini, P. (2005). The slowdown of the multiage classroom: What was once a popular approach has fallen victim to NCLB demands for grade-level testing. *School Administrator*, 62(3), 22-28.
- 65. Pilot, D. F., &Hungler, B. P., (1999). *Nursing research: principles and methods*. Phildelphia: JB Lippincott Company.
- 66. Post, D., Van Leeuwen, R., Tiesinga, L. J., Middel, B., & Jochemsen, H., (2009). The validity and reliability of an instrument to assess nursing competencies in spiritual care. *Journal of Clinical Nursing*, 18(20), 2857-2869.
- 67. Pratt, D., (1986). On the merits of multiage classrooms. Research in Rural Education, 3(3), 111-115.

- 68. Pridmore, P., (2007). Adapting the Primary School Curriculum for Multi-grade Classes in Developing Countries: *A Five-step Plan and an Agenda for Change*. London: Institute of Education, University of London.
- 69. Reis, S. M., McCoach, D. B., Little, C. A., Muller, L. M., &Kaniskan, R. B., (2011). The effects of differentiated instruction and enrichment pedagogy on reading achievement in five elementary schools. *American Educational Research Journal*, 48(2), 462-501.
- 70. Rouse, C. E., & Barrow, L., (2006). U.S. elementary and secondary schools: Equalizing opportunity or replicating the status quo? *Opportunity in America*, 16(2), 99-123. 140
- 71. Sibli, M.P.M.M., (2003). Primary Mathematics Unit, National Institute of Education, *Multi-grade Teaching: an Introduction*, Sri Lanka.
- 72. Strauss, J. & Myburgh, C. P. H., (2000). Study Guide: Research Methodology Module 4: Bachelor of Education (B Ed), Training and Development. *National Qualification Framework* (NQF) Level 7. RAU: Auckland Park.
- 73. Stuart, S. K., Connor, M., Cady, K., &Zweifel, A. (2006). Multiage instruction and inclusion: A collaborative approach. *International Journal of Whole Schooling*, *3*(1), 12-26.
- 74. Swenson, L. M., &Strough, J., (2008). Adolescents' collaboration in the classroom: Do peer relationships or gender matter? *Psychology in the Schools*, 45(8), 715-728.
- 75. Tomlinson, C. A., (2000). *Leadership for differentiating schools and classrooms*. Alexandria, VA: Association for Supervision & Curriculum Development.
- 76. Tomlinson, C. A., Brighton, C., Hertberg, H., Callahan, C. M., Moon, T. R., Brimijoin, K., Conover, L. A., & Reynolds, T., (2003). Differentiated instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted*, 27(2/3), 119-145.
- 77. Tomlinson, C. A., (2005). Grading and differentiation: Paradox or good practice? *Theory into Practice*. p. 262-269.
- 78. Tsolakidis, C., &Constantinidi, A., (2006). ICT reinforcing teaching and learning in multi-grade schools.
- 79. Tustin, D. H., (2006). Business Research. Study guide for CBURESX. Pretoria: University of South Africa.
- 80. UNESCO, (1989). Multi-grade teaching in single teacher primary schools. Asia and the Pacific programme of Educational innovation and development. UNESCO Principal Regional office for Asia and Pacific Bangkok, Thailand.
- 81. Veenman, S., (1987). Classroom time and achievement in mixed age classes. Educational Studies, 13(1), 75-89.
- 82. Veenman, S., (1995). Cognitive and non-cognitive effects of multi-grade and multi-age classes: A best evidence synthesis, *Review of Educational Research*. 65 (4), p. 319-381.
- 83. Vincent, S., Eds., (1999). *The Multi-grade Classroom: A resource handbook for small, rural schools.* Oregon: Northwest Regional Educational Laboratory.\
- 84. Vygotsky, L. S., (1978). Mind in society: *The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribener, & E. Souberman, Eds. & Trans.). Cambridge, MA: Harvard University Press.
- 85. Wood, K, & Frid, S., (2005). Early childhood numeracy in a multiage setting. *Mathematics Education Research Journal*, 16(3), 80-99.