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Effects of Ability Grouping on the Performance of Basic School Pupils in Ghana

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Abstract:
This study examined the effects of ability grouping in two Ghanaian private basic schools. Through a qualitative research design, data were gathered using non-participant observation techniques and semi-structured interviews with 22 teachers from the two case study schools. The major findings that emerged were: 1) ability grouping makes it easier for teachers to target and meet the learning needs and interests of diverse groups of pupils with similar abilities; 2) the practice has a positive impact on teaching and learning for both low and high ability groups, as it eliminates boredom among the former and increases competition among the latter; and 3) the main challenges teachers face in optimizing the use of the practice in the classroom include unavailability of reading materials and inadequate psychological and teaching skills. Overall, the data had validated that ability grouping does have positive impact on teaching, learning and pupil performance; but more needs to be done, through the provision of reading materials and specialized PD programmes for teachers, to help optimize the use of the practice in the classroom. This study provides information on ability grouping in Ghana, which could benefit teachers and policy implementers in other developing nations and beyond.

Keywords: Ability grouping, performance, basic school pupils, Ghana

1. Introduction

Schools do not only help in developing academic knowledge of pupils, but also prepare and train them to assume adult roles, including participation in the work force. Educators attempt to promote engagement with learning and imbibe in pupils behaviours such as punctuality, attentiveness and time-consciousness in the performance of duties. However, the prevalent practice of grouping pupils by their perceived ability implies that pupils in the same school, or even the same classroom, may have very diverse training experiences.

Ability grouping is the practice of placing students into groups based on their academic achievement level (Slavin, 1990). The students are grouped based upon results they receive in a test, mostly reading and math. In the case of many schools in Ghana, mid-term examination or end-of-term examination scores are used in determining the grouping of a student.

Upon cursory look, the concept of ability grouping may seem unproblematic because students are grouped with like minds. It, however, becomes a cause for concern when those in the lower group do not receive the chance to grow as students. Reglin (1992) posits that ability grouping has negative consequences because of the segregation idea. He affirms that the lower level students are denied the equal education they deserve; so, they tend to receive poor teaching and develop lower self-esteem.

The debate on the effectiveness of the concept of ability groupings on the performance of pupils continues to be an issue of concern within the educational field in Ghana and beyond. It is the desire to get a deeper understanding of the concept that led to this study.

2. Review of Relevant Literature

2.1. Theoretical/Conceptual Framework

Bandura (1997) proffered that social learning theory supports the grouping of students based on ability as they are most likely to achieve at levels similar to which they are associated. Ability grouping is generally perceived to be a means of raising academic standards (Huang, 2009; McIntyre & Ireson, 2002). Indeed, the most prevalent reason for homogeneous grouping is to allow educators to meet the individual or different learning needs of students in the most efficient way (Ansalone, 2009). The stance is supported by Turney (1931) who argued that the reason for ability grouping is to bring together pupils who will be able to cooperate and progress together under conditions permitting the maximum development of the individuals involved.

Furthermore, because of students' different learning rate, the fast learner in the heterogeneous class may become bored by the lengthy and simple explanations provided to slower learners by the instructor. When instruction is not

geared to the appropriate ability level of the students, and the needs of advanced learners and slower learners are not met, boredom may occur (Khazaeenezhad, Barati, & Jafarzade, 2012). And boredom may lead to classroom management issues.

Ability grouping is thus said to be a solution to classroom management problems (Ireson, Hallam, Hack, Clark, & Plewis, 2002). It is believed that it is easier to manage and maintain the attention of students grouped by ability (Hallinan & Sorensen, 1983); thereby allowing for a more targeted approach to teaching.

2.2. Motivation for Ability Grouping

The main idea of within-class ability grouping is to use separate instructions to better pupils' performance and narrow the gap between pupils of different ability levels (Lleras and Rangel, 2009); thus, allowing for instruction to be efficiently targeted towards the right group of pupils.

There are many motivations for segregating students; principally, administrators are of the conviction that it will help teachers to individualize instruction and maximize pupil output (Hornby, Witte, & Mitchell, 2011). Forgasz (2010) posits that one of the main motivations for using ability grouping in a school environment is to make teaching easier for the teacher to issue same level of instruction to students of like ability. Administrators therefore find it convenient to group students of like ability, within-class or between classes, to make teaching easier for the teacher and to also maximize performance of students.

2.3. Positive Impact

Conceivably, the most widely professed reason for adopting ability grouping is to meet the needs of all students through the provision of relevant instruction (Chorzempa & Graham, 2006). The finding stated that almost two-thirds of the population of primary educators is using within-class ability grouping to assist in the academic achievement of their students.

Also, ability grouping was seen as a means of raising academic standards (Huang, 2009). Goodwin (1997) identified the benefits of ability grouping in Physical Education, where a pupil's ability could be seen by all in the classroom. This could be difficult for low ability pupils in a mixed ability class, as they could be intimidated and discouraged by the performance of high ability pupils from trying new things.

Research has also proven that other positive effects of ability grouping include making pupils to work in classes at a rate that would suit them and other pupils of similar abilities, and this was applicable to pupils of all abilities (Muijs & Dunne, 2010). This affords high ability pupils the opportunity to work together and harder to achieve, and also allow low ability pupils to experience success by lessening direct competition with more able individuals (Reuman, 1989); thereby making it possible for members of either group to cope with the pace of learning.

Again, Matthews, Ritchotte, and McBee (2013) examined the effects of grouping on non-gifted and gifted students between grades 2 to 6 years within a three-year-period. The results showed an appreciable increase in reading for both gifted and typical students within the period. Students also work in groups with peers of like ability, thereby increasing their self-esteem since they have been spared the embarrassment of competing against peers that are brighter than they are (Ansalone, 2003). And self-belief may serve as a tonic to spur such students on to improve their academic fortunes.

2.4. Negative Impact

Conversely, other researchers maintain that within-class ability groups lead to intellectual, social, and emotional consequences for students, especially the ones classified as low ability (Nomi, 2010). Some studies also show that students classified as weak are demoralized when grouped with like-achieving students, but are eager when they are with high achievers in mixed groups (Kaya, 2015). In other words, such weak students are only motivated to study harder when mixed with high achieving students.

Contrary to findings by early researchers that ability grouping increased achievement for high and middle achievers and decreased academic achievement for low performers. Ansalone (2010) completed a review of literature in which he determined that there is no supporting evidence that ability grouping increases academic achievement, and concluded that ability grouping does not have any positive effect on academic achievement.

Groups with lower ability are usually slower than their counterparts in higher ability groups, which could cause gaps in understanding of content, thus impacting adversely on achievement and the self-belief of the low achieving student (Worthy, 2009). For instance, materials completed by a stronger group in three days may be completed in two weeks by a weaker group. This may have adverse effect on the lower group's self-esteem.

Berends and Donaldson (2011) also compared ability groups between conventional and charter schools. The conclusion was that neither charter school ability groups nor traditional school ability groups had any considerable impact on performance of students in math.

Oakes (1986), too, proffers the idea that educational inequality leads to different performances by students. Oakes (1988) also posits that higher ability students tend to benefit from tracking, while poor and minority students who are likely to be placed in the lower tracks are affected negatively by tracking.

Kintz (2011) also discovered that there was a discrepancy between students in low ability groups and those in high ability groups. In reviewing the literature, Kintz found that students from a low ability group tend to have a negative stigma attached to them. He also noted that, generally, students in a high ability group make friends and tend to come from high socioeconomic settings. In general, Kintz discussed the negative effects of ability grouping on low-ability grouped students because they are usually stereotyped, receive less thorough instruction, and become friends with those in their classroom who tend to have less motivation for success and growth.

Lamm, Shoulders, Roberts, Irani, Unruh Snyder, and Brendemuhl (2012) also conducted a research to establish the effect of ability groupings. They had three groups and each was given a problem to solve. The IDEAL Problem-Solving Framework was used to determine the level of success by each group in using the steps. Lamm et al (2012) established that each of the groups had both strengths and weaknesses. They therefore proposed further research be conducted since there was no significant proof given to warrant choosing one type of group over the other.

2.5. Research Questions

The study addresses a gap in research about the effect ability grouping in basic schools in Ghana. By investigating the practice and enquiring about teachers' perception on it, one can gain a better insight to the issues and proffer solutions to them. The purpose of the study was therefore to investigate: 1) what impact ability grouping has on teaching and learning? 2) what makes ability grouping effective (or ineffective)? and 3) what the challenges are with regard to the implementation of ability grouping?

3. Research Methodology

This study was purposely designed to collect qualitative data for qualitative analysis. With focus on the phenomenological aspect of qualitative research, it allowed the study to observe and incorporate teachers' perception on the impact of ability grouping on the performance of pupils. Non-participant observation techniques and open-ended semi-structured interviews were considered appropriate for this study.

The instrument used for the observation was the Observation Protocol which looked up for feelings, attitudes, vocal and facial expressions and other behaviours of pupils and teachers in the classroom. The interviews were recorded on a digital recorder and later transcribed. The transcribed data was subsequently subjected to qualitative analysis through the process of coding, which led to the formation of categories and themes.

The population of the study was taken from two private basic schools in the Ga West district in the Greater-Accra Region of Ghana. The two schools were chosen to provide data to the study, with varied school population and demographics. The demographic information of the participants is summarized in the table below.

Teacher Code For The Research	Gender	Age	Teaching Experience (Years)	Highest Qualification
TAG 1	Male	29	8	Diploma
TAG 2	Male	32	5	Degree
TAG 3	Female	28	7	Degree
TAG 4	Male	29	2	Degree
TAG 5	Female	33	10	Diploma
TAG 6	Female	30	4	Diploma
TAG 7	Male	30	7	Degree
TAG 8	Male	25	3	Degree
TAG 9	Male	29	6	Postgraduate certificate
TAG 10	Female	26	5	Diploma
TAG 11	Male	22	2	Diploma
TAG 12	Female	25	2	Degree
TAG 13	Male	26	1	Diploma
TAG 14	Female	29	6	Diploma
TAG 15	Female	30	4	Degree
TAG 16	Male	26	2	Diploma
TAG 17	Female	31	11	Postgraduate certificate
TAG 18	Male	32	8	Degree
TAG 19	Male	36	10	Degree
TAG 20	Male	28	7	Diploma
TAG 21	Female	27	3	Diploma
TAG 22	Female	31	12	Degree

Table 1: Demographic Information and Code of the 22 Participants

4. Findings

The data collection tools were non-participant observation and semi-structured interviews. Twenty-two teachers were interviewed and observed from the two selected schools for a period of twelve (12) months, September 2018 to August 2019. The interviews and observation were analysed using the identified themes with relevant responses of the participants used to highlight the main findings.

4.1. Impact of Ability grouping on learning

When participants were asked how the practice of ability grouping had impacted pupils' learning, the majority (89%) had views similar to the ones expressed below:

We have noticed a drastic improvement in pupils' performance since we started grouping them according to ability three years ago. (TAG1). I am particularly enthused about the practice because it affords me the opportunity to tailor my teaching to the ability of pupils in the group, thereby improving performance. (TAG9). According to the participants, ability grouping allows for targeted teaching, which makes it easier to meet the learning needs and interests of pupils.

4.2. Effectiveness (or Ineffectiveness) of Ability Grouping

When participants were asked to share their views on the effectiveness of ability grouping, almost all (85%) of the participants shared views similar to the ones espoused below:

 Being pupils in a group with similar ability, it is easier for them to share ideas with one another. Brainstorming is thus encouraged, leading to improved teaching and learning. (TAG22).
The practice encourages pupils, especially the low ability grouped ones, to participate in classroom activities as they do not feel intimidated by their classmates who are virtually of the same level. (TAG17).
 According to the responses, the effectiveness or otherwise of ability grouping could be determined by its contribution to pupils' improvement in learning. And since they saw a positive impact on pupils' learning, participants felt the practice was effective.

However, the dissenting minority (15%) expressed views similar to the ones demonstrated in the following response:
The practice is ineffective, particularly for those in low ability group, as it demoralizes the pupils from actively participating in lessons. (TAG2). Pupils in a low ability group are most of the time stigmatized, which impacts negatively on their learning and performance. (TAG31).
The minority group was of the view that ability grouping was ineffective since it impacted negatively on the performance of pupils in low ability group.

4.3. Classroom Ambiance

The Researcher observed that the majority of participants (72%) were as enthusiastic and energized in both high and low ability classes. However, the minority (28%) were unable to sustain the interest of pupils in the low ability class during lessons, thus making the ambiance in the low ability class less positive during those periods.

4.4. Challenges of Using Ability Grouping in the Classroom

When the participants were asked what challenges, they faced in using ability grouping in the classroom, all of the (98%) of responses were similar to the ones expressed below:
The practice of grouping students according to ability is good because it helps the teacher to direct his teaching towards a particular group. But the teacher needs specialised professional development (PD) programmes to develop the needed psychological and instructional skills to optimize the use of the practice. (TAG4). The main challenge for me is lack of resources, such as reading materials, which nullifies all the efforts of the teacher. As you know, ours is a rural school with majority of the pupils coming from financially challenged homes. (TAG13). According to the responses, the main challenges faced by teachers included unavailability of reading materials and lack of needed psychological and teaching skills to optimize the use of the practice in the classroom.

5. Discussion

In order to meet the demand placed on schools and educators to increase performance of pupils, many schools have resorted to varied instructional strategies. One of such is the practice of ability grouping. In relation to the first research question *what impact ability grouping has on learning and teaching*, the data analysis illustrates that the practice makes it easier for teachers to target and meet the learning needs and interests of groups of pupils with similar abilities. It supports findings by (Gamoran & Berends, 1987; Puzio & Colby 2010) that ability grouping accommodates the needs, aptitude, purpose and interests of diverse pupils, and has the prospect of raising achievement levels of students.

For the second research question, *what makes ability grouping effective (or in effective),* data analysis showed that ability grouping has a positive impact on teaching and learning for both high and low ability groups. The literature provides support for the finding by (Mujis & Dunne 2010) that ability grouping was positive for lower ability pupils, who otherwise would be left confused and demoralised. It further corroborates the theory by (Feldhusen & Moon, 1992; Ward, 2005; Winstanley, 2010) that there is high competition among students of high ability placed in the same group, thereby improving performance.

In relation to the third and final research question, *what the challenges are with regard to the implementation of ability grouping*, the analysis of the data illustrates that the main challenges faced by teachers included unavailability of reading materials and lack of needed psychological and teaching skills to optimize the use of the practice in the classroom. It also lends credence to findings by (Holloway, Nielsen & Saltmarsh 2017) that enough training and experiences in differentiated instruction methods are rarely provided to students during pre-service training; so teachers who had not been trained in the implementation of differentiated instruction tend to have negative attitude in using it in class (Crum 2004).

6. Conclusion

This study has established three major findings. Firstly, ability grouping makes it easier for teachers to target and meet the needs and interests of diverse groups of pupils with similar abilities. Secondly, the practice has a positive impact on teaching and learning for both low and high ability groups, as it eliminates boredom among the former and increases

competition among the latter. Thirdly, the main challenges teachers face in optimizing the use of the practice in the classroom include unavailability of reading materials and inadequate psychological and instructional skills by teachers. Overall, the data had validated that ability grouping does have positive impact on teaching, learning and pupil performance, but more needs to be done, through the provision of reading material and specialised PD programmes, to help optimize the use of the practice in the classroom. The study, though small in scale, has given useful insights on some potentially relevant information about ability grouping in Ghana, a developing West African country. The study only involved two single case study schools, so more in-depth and large-scale empirical inquiries are required to generalize the findings. Undertaking such studies would help not only to generate useful information, but also provide deeper insights into the practice of ability grouping. Such sound empirical evidence can then help influence policy and practice.

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