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Performance rankings in education: Implications for policy and practice

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In recent decades, school performance ranking (or 'league table') have become a common feature of many education systems in the world. The ranking is usually published by government and news agencies in an attempt to measure and compare the relative performance of individual schools against a number of criteria, including academic performance. This paper reports parts of larger case study that set out to investigate teachers' and students' perceptions of performance ranking in secondary schools in Kenya. The study participants were teachers and students of Mathematics drawn from secondary schools in Embu County in Kenya. Data were gathered through one-on-one semi-structured interviews, focus group discussions, and surveys. The transcriptions of the audio-recorded interviews and focus group discussions were analyzed by first reading the texts of the transcriptions holistically, followed by the development of codes, organizing the codes into larger categories and, finally, organizing the categories into overarching themes. This paper, in particular, examines the research findings through the lens of the existing literature on school performance rankings. The paper demonstrates how school performance rankings in Kenya have been abused over the years to the detriment of quality teaching and learning. Finally, the paper highlights the implications of school performance ranking for policy and practice.

Key words: Performance ranking, league tables, accountability, teaching.

INTRODUCTION

In recent decades, demand has grown for accountability and freedom of choice in the education system (Neves et al., 2014; Rosenkvist, 2010). Growing out of the performance management movement in the private sector, the most visible manifestation of this has been the publication of performance rankings („league tables") based upon particular performance indicators (Ball, 2009; Leckie and Goldstein, 2009, 2019; Neves et al., 2014; Rosenkvist, 2010; Wilson and Piebalga, 2008). These rankings, which list schools in ascending order of performance, have been embraced as a feedback mechanism to induce organizational change by producing specific notions of what counts as a „successful" or unsuccessful" school (Neves et al., 2014). A school that is ranked highly in considered a symbol of educational excellence and a significant source of influence in the development of educational policies. Teaching practices and institutional setups paradigmatic of the schooling in

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top-performing schools are featured in the media, exerting pressure for the borrowing of their educational practices and policies. Such comparisons between schools are problematic from both technical and methodological perspectives (Neves et al., 2014). Critics of school performance rankings have particularly argued that in many cases, the methodology of performance ranking is akin to comparing oranges to apples and tends to significantly overstate the difference. This paper reports part of a larger case study that set out to investigate teachers" and students" perceptions of performance rankings in secondary schools in Kenya. In particular, the paper examines the research findings through the lens of existing literature on school performance rankings. The paper demonstrates how school performance rankings in Kenya have been abused over the years to the detriment of quality teaching and learning. The paper also highlights the implications of school performance rankings for policy and practice. The paper examines selected literature on school performance rankings to understand their methodologies, their utility as a means for generating systemic improvement in the education system, as well as their weaknesses when viewed from the perspective of equity in education.

Methodologies of performance rankings

In an attempt to better reflect school effectiveness, the methodologies of school performance ranking have evolved over the years, and at least three can be identified in the literature. The first methodology is based on raw test scores of students in internal and national examinations. The raw student test scores are often expressed as percentages of students achieving a particular target. This method has been criticized for not taking into account the context in which the schools operate (Kellaghan and Greaney, 2001). In other words, the methodology does not separate the aspect of students" attainment that can be ascribed to teachers or schools from other factors that affect achievements, such as students" entry behavior, students" socioeconomic background, school conditions, and availability of adequate teaching/learning resources. Some schools admit students form backgrounds endowed with ample resources, while others admit students from low socioeconomic backgrounds. Therefore, a high rank for a school may reflect more the economic status of the community the school is part than the quality of teaching and learning in that school (Ozek, 2009). Consequently, a school might have a low rank compared with other schools regardless of high-quality teaching because it serves a less privileged community (Cobbold, 2004). On the other hand, high-quality teaching in secondary schools may result to students registering exemplary performance but fail to be reflected in the ranking data.

This is because other schools may serve children from families endowed with adequate teaching and learning resources. Furthermore, a school that does not do well in rakings that are based on students" test scores might do very well in some other criterion. The use of raw test scores in performance ranking also fails to provide a clear picture of difference in the quality of teaching between schools and instead simply reflect differences in students" school entry characteristics (Lucas and Mbiti, 2011). As such, performance rankings can mask low performance among the second-rate schools with favored intakes. Further, the use of raw test scores in the performance rakings increases incentives for ‚cream-skimming" by schools (selective admission of students with higher ability), or ‚silt-shifting" (offloading students who are likely to lower the school"s position in the rankings) (Kellaghan and Greaney, 2020; Wilson and Piebalga, 2008), non-promotion of weaker students, cutting back on subjects not examined, teachings to the test to ensure good students" scores (Kellaghan and Greaney, 2020). The use of raw students" scores in performance rankings may also encourage schools to resort to various forms of examination malpractices such as manipulating the test results and assisting the students with examination questions during national examinations (Kellaghan and Greaney, 2020).

The second methodology of ranking is the value-added models, which take account of students" prior attainment. Thus, value-added models provide a measure of a school"s influence on the progress of a student. The value-added model helps to isolate the impact made by a school on the academic progress of students between the time of admission and the time examination was taken. There are various methods of calculating value-addition to a student. For example, the Department of Education and Skills in the UK uses a national "median line" approach, where the value-added for each student is the difference between their output point score and the median (middle) output point score achieved by others with similar input scores (prior attainment). So, for example, a measure of the value-added to students by schools is calculated by taking the score attained by a student just prior to entry into secondary school as the input score and the score attained at the end of the secondary education as the output score (Wilson and Piebalga, 2008). The value-added models thus reduce the motivation for "creaming" approaches since the different abilities of a school"s intake are overtly taken into account (Wilson and Piebalga, 2008).

However, the value-added models do not fully separate effectiveness from the composition. While previous achievement is the most important predictor for future performance, other factors outside the schools control also influence student results. These include gender, deprivation, and high levels of student mobility (Wilson and Piebalga, 2008). The value-added models have also been criticized for hiding evidence of disparity in school

effectiveness (that is, differences in performance by any one school for its students of different abilities), which may limit their usefulness to any one parent trying to choose a school for their particular child. Besides, the extent to which, in practice, meaningful comparison across schools according to their value-added may be somewhat limited due to the extent to which their confidence intervals overlap (Goldstein, 2001). Finally, there is evidence that value-added model is not as stable across years as performance measures based on raw student scores, which again may limit its usefulness as a means of evaluating and comparing school performance (Wilson and Piebalga, 2008)

The third methodology of performance ranking is the contextual value-added models whose introduction may be seen as an attempt to better separate effectiveness from composition and so present a measure that better isolates the actual impact of a school on student academic progress. The contextual value-added explicitly takes account of various factors that are independent of schools but which are known to impact on educational outcomes, both at student and the school level, which includes gender, special educational needs status, socioeconomic status, ethnicity, deprivation, and peer group pressure (Wilson and Piebalga, 2008). The model incorporates data on student background characteristics as well measures of students" prior attainment, and school background. In this approach, each student is compared to peers who not only have similar input grades but who are also similar across a range of other contextual factors that are known to impact on educational attainment (Wilson and Piebaga, 2008).

Practices of performance rankings in various part of the world

Performance ranking of schools is a common phenomenon globally, and it differs in terms of the procedures and methodologies used, as well as the uses of such rankings. In the United Kingdom (England), the rankings were introduced in the mid-1980s (Goldstein, 2013), with the aim of providing clear and accessible information to parents on their children"s academic progress. In 1995, the government introduced the value-added league tables in a bid to adjust results for students" entry characteristics and to provide confidence intervals for the mean scores based on relatively small sample sizes. Since 2006, "contextual value-added" systems have been used which, in addition to adjusting for a student"s prior academic attainment, also attempt to adjust for factors such as the average prior academic achievement of a student"s peers and family background characteristics (Dearden and Vignoles, 2011).

In Australia, the government provides detailed information about performance in schools reflecting average scores for statistically similar schools and all the

schools in the country. In the United States, the National Assessment of Educational Progress (NAEP) produces the "Nation"s Report Card", to inform the concerned parties about the academic attainment of students at the national level, and for certain assessments, at the state and district levels. The results are widely reported by the national and local media and are an integral part of government evaluation of the conditions and educational progress (Rosenkvist, 2010). In the Netherlands, the government publishes a "quality card" for every secondary school containing value-added school performance information. These cards show examination results, attainments in individual subjects, the number of dropouts, and a comparison of similar secondary schools in the region while controlling for differences in student intake at the entry of a formal stage of schooling (Timmermans et al., 2014). In Tanzania, performance rankings based on raw scores and improvement index are used to monitor schools performance by local education officials and the Ministry of Education (Blackmon, 2017).

In many countries, the league tables are published on an official website. For example, in Austria, Canada, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Japan, Korea, Mexico, Netherlands, Portugal, Australia, Belgium Sweden, the United Kingdom(England), and United States of America. In Norway, results from the national student assessment are published on the local and regional level, while in Spain and Germany students learning outcomes are only published on the regional level (Rosenkvist, 2010). In the great majority of European countries, the aggregated results of national tests for each school are not publicized. In some countries such as Austria, Belgium, France, Ireland Luxembourg, and Slovenia, official documents state clearly that national tests cannot be used to rank schools. In Finland, there was a heated debate about publication of school performance rankings, but the national consensus was in favour against publicizing students test results (Parveva et al., 2009). In Russia, performance rankings are used by authorities to put pressure on different levels in the education system, where teachers and schools that were highly ranked are warded economic incentives, without taking into account the socioeconomic context in which schools operate (Tyumeneva, 2013). In some countries, performance rankings have been abolished because of their perceived negative effects especially on low-ranking schools, and the need to promote a culture that valued extra-curricular activities and character development. These include Northern Ireland and Wales (2001), Scotland (2003), Japan (2005), and Singapore (2012) (Rosenkvist, 2010).

In some countries, performance rankings are used for accountability purposes. In Malaysia, for example, performance ranking based on contextual value-added (CVA) and used as a tool for school improvement, accountability, informing policy makers, and for reporting

purposes to parents and the larger community (Nor, 2014). In Chile, the government initially employed school averages of standardized tests as indicators of effectiveness. Ranking from standardized achievement tests assisted the parents in choosing effective (or high valued added) schools for their children to attend and identify schools to get allocation of rewards and financial assistance by the government (McEwan et al., 2008). Later, a contextualized value-added model was introduced to provide information for accountability purposes (Troncoso et al., 2016). Similarly, in Uganda, the use of value-added measures created an intelligent school accountability system in which actions taken by the stakeholders in education were based on quality assessment data (Elks, 2016). The value-added measures challenged schools and students to work hard to register an improvement.

In some countries, such as Belgium, France, Luxembourg, Austria, and Slovenia, official documents clearly prohibit the use of students test scores to draw up comparative school rankings, as these are considered unlikely to improve educational attainment by schools and students. Indeed, only in the United Kingdom (England) does the publication of school students test results coexist with parental freedom to choose between schools- two factors which in combination are most likely to reinforce the influence of tests on school practice. In the rest of Europe, the most common model is the use test results for school improvement (Parveva et al., 2009).

Some countries publish performance ranking data in the media. The media has been instrumental in convincing the government to publish student test results at the school level (Rosenkvist, 2010). The student test results at the school level are often compiled and used as a basis for publishing league tables. In Australia, for example, the news media use test results on the government website *My school* to publish league tables (Rosenkvist, 2010).

In Portugal, the publication of school rankings data began in 2001. The Ministry of Education had declined to release the data on students" scores. Through a legal injunction, the Ministry of Education was forced to release the data on the scores obtained by the students in the national examinations held at the end of schooling. Portuguese school ranking are based on the raw data of the students" scores obtained in a given selection of subjects. That selection is usually made up of the eight subjects in whom more examinations were taken. Currently, there is criticism of the use of students" raw marks in performance ranking in Portugal because differences in students" intake mark the socioeconomic status of the student"s background is not considered (Neves et al., 2014).

In Kenya, performance rankings began in the 1940s (Bogonko, 1992), and were based on raw students" scores obtained in national standardized examinations

(Somerset, 1987). These rankings were banned because some schools were found to be manipulating the system by presenting only their best students for examination (Akers et al., 2001). In the last few years, the consequences of performance ranking have grown markedly. Manipulations of students" records were responsible for low transition rates (Clarke, 2002). The private schools discouraged weak students from sitting for national examinations so that they present the best students for the national examination (Maiyo et al., 2010). Certain schools came up with promotional grades requiring a student to reach a certain set of scores on internal tests to be promoted from one grade to the other (Koretz, 2002). The weak students were forced to repeat classes or register for the national examination in another school (Maiyo et al., 2010). Despite the ban, ranking continued at the provincial and district levels (Amunga et al., 2010). Similarly, in Ghana, the introduction of performance ranking in 2004 led to a sharp increase in examination malpractice in the senior Secondary School Certificate examinations. A more partial release of district-level students" examination results at the end of the basic level of schooling has been associated with a positive impact in a few districts in the student"s academic progress (Akuffo-Badoo, 2017). In Finland, performance ranking is never practiced to avoid affecting the quality of education through unethical practices such as schools teaching for passing examinations to improve their rank in the league table to attract good students and teachers (Annala, 2015).

As noted in the discussion, there often exists a discrepancy in performance ranking from one country to another. Some countries make use of raw students" marks; other value-addition index, and other contextual value-addition index. There seems to be strong evidence that the contextual value-addition index is fair as it adjusts for students" intake differences between schools to measure the effects schools have on the students. The contextual value-added approach recognizes that students have different capability and abilities which are influenced by school context and students backgrounds there by influencing student"s rate of educational progress (Downes and Vundurampulle, 2007). As Sander (2000) describes it, if education is seen not as stair steps but as a slope upon which students in the same grade will be at different points and school effectiveness can influence the speed at which student"s progress in their academic work. Contextual value-added approaches seek to gain a clearer impression of a student"s progress by comparing their level of attainment to other students of similar ability and background (Downes and Vundurampulle, 2007). These adjustments of student"s scores to external factors using contextual value-added measures aim to give a more accurate indication of the influence a school has had upon their students. Students are motivated to study more since there are justice and fairness in practice. Therefore, performance ranking

becomes a motivation to both the school and the student.

Merits of performance rankings

Proponents of performance rankings in schools present several specific arguments to support the practice. First, the performance rankings can be used to incentivize teachers, either by publicizing the rankings or by providing financial rewards to teachers for high student academic achievement. To be sure, performance rankings have been used as a means to incentivize teachers, even though this very act has been criticized for encouraging teaching to the test (Rosenkvist, 2010). This is because, by publicizing the rankings, schools and teachers can be compelled to internalize the norms, values and expectations of education stakeholders and to accept responsibility for conforming to them.

Second, performance rankings provide information to parents for school choice (Dearden and Vignoles, 2011). Parents use the published school performance data to, at least partly, inform their choice of school for their children (Benson et al., 2015). It may be argued that outside performance rankings, parents may not have a way of measuring the relative performance of their children"s schools. As such, many schools use performance rankings as a marketing tool (Blackmon, 2017).

Third, performance rankings stimulate improvement through competition as they help in focusing the teacher and student efforts on the goals of instruction and providing standards of expected achievement that students and teachers can aspire to, thus, creating a system of measurement-driven instruction. Additionally, competition for a better rank motivates the school management to appropriately coordinate both physical and human resources for the betterment of student"s academic outcomes (Limangura et al., 2017). Performance ranking also guides various education stakeholders in rewarding good performance.

Fourth, performance rankings can be used as a valuable tool for identifying underperforming schools (Greaney and Kelleghan, 2004). Through the information from the performance ranking data the underperforming schools are identified and the reasons for under-performance are investigated to come up with strategies of addressing the challenges such schools may be experiencing. The rankings can help in effectively allocating resources to the underperforming schools, provision of practical advice regarding the skills to be developed and types of targets to be set based on the need to guarantee value for investment.

Fifth, the assessment of schools based on performance ranking holds secondary schools publicly accountable for the students learning outcomes in national standardized examinations (Dearden and Vignoles, 2011). This is useful to prospective students and interested parties in that it reveals the outcomes of the school"s core business

that is academic achievement. Prospective students and interested parties assess schools, with statistics and measures which are obtained from the performance ranking data (Nunes et al., 2015). The publication of the performance ranking data is associated with a decrease in the number of students attending schools that are rated poorly and vice versa (Nunes et al., 2015). This comes about due to a more informed parent choice of schools for their children through performance ranking data. Parents are attracted to take their children to the schools which are at the top of the rank and with a bigger proportion of students qualifying for the next level of education. The practice prompts schools to improve their academic standards by providing all the necessary support to students which translates to a better student"s achievement.

Finally, the importance of performance ranking is motivating to students through the grading system, which arises from the importance of grades in indicating students" ability and learned knowledge (Cherry and Ellis, 2005). Grades attained by students" area a key signal about student"s effort, proficiency and ability in certain professions. Consequently, students are motivated to make choices that will enable them to attain better grades. In essence, students complete for a limited number of grades with their relative performance determining their final grades (Cherry and Ellis, 2005). Performance rank-order grading improves student performance though it may not be productive in all situations.

Demerits of performance rankings

Critics of school performance rankings contend that the rankings can lead to manipulation of data by schools as well as teaching to the test to boost a school"s ranking (Rosenkvist, 2010) For example, in England, schools allocated the most experienced teachers and more support staff to the examination classes to improve their rank (Cobbold, 2010). The practice resulted in the sacrifice of the longer-term development of students which compromised the standard of education in the country.

Indeed, when accountability systems put teachers under intense pressure to get good results and on schools to have high rankings, the likelihood of cheating increases (Cizek, 2001). In their effort to obtain a better rank position, students (and sometimes teachers) resulted to various forms of cheating designed to give a student or a school undue advantage over others (Njue et al., 2014). Some of the examination malpractices are students copying from other students during an examination, collusion between school principals and examination supervisors and purchasing of examination materials among others (Njue et al., 2014). The practice results in producing graduates who have no adequate

qualifications for further studies in various fields. Besides, performance ranking creates incentives for schools to ignore the low-achieving students and highly focus on the high achievers and average students in various disciplines (Reed and Hallgarten, 2003). Similarly, most schools have increasingly concentrated on students who are on the border of accepted benchmarks rather than the lowest achievers in order to have a better rank in examination outcomes (Gillborn and Youdell, 1999). Additionally, schools provide special classes for students at or near the borderline of the desired targets for them to boost the school performance to improve their rank (Galton et al., 2003). Improving scores of students at the border line is seen as the most efficient way to raise a schools average score or the proportion of the students achieving an average score. The low achievers in secondary schools are forgotten and end up discouraged and feel discriminated against which affect their self-esteem and label themselves as weak students.

Furthermore, performance ranking is, to some extent, responsible for introduction of private tutoring of students in desperation to obtain a top rank. Private tutoring, in so far as it is successful it maintains and exacerbates social inequalities as wealthy households can invest in more and better tutoring than poor households (Kellaghan and Greaney, 2020). This leads to the rise of concerns at different times over its perceived negative effects on social inequity in education. Additionally, private tutoring re-enforces the obstruction of the efforts to make the education system less depended on examination as seen as an essential ingredient in the demand for private tutoring services among students (Kellaghan and Greaney, 2020). Further, private tuition presents opportunities for corrupt practices in teaching and learning. Some of the corrupt practices involve pressurizing students to take private lessons by teachers failing to teach crucial aspects of the curriculum during regular lessons.

Moreover, performance ranking has led to negative competition among schools which discourages collaboration. The school collaboration is discouraged because performance ranking encourages competition between schools rather than collaboration and co-operation. This undermines one of the key measures of school improvement which is the opportunity and capacity of schools to learn from each other. This practice promotes school isolation and self-reliance which often leads to a reduction in cross-school collaboration (Whitty et al., 1998: 62). In turn secondary schools become reluctant to share their successful practices in their teaching and learning with other schools to avoid those schools appearing ahead of them in the school performance rankings data (Cobbold, 2004). This study subsequently provides a Kenyan perspective of performance ranking based on a study that sought teacher"s and student"s perceptions of performance ranking in secondary schools.

Performance ranking in Education: A Kenyan perspective

As noted earlier, performance ranking of schools and students in Kenya began in the 1940s (Bogonko, 1992). The modality of ranking was on achievement in national standardized examinations (Kellaghan et al., 2009), unlike modalities used in other countries that look at other factors that contribute to an all-round students (Harris, 2011).

Performance ranking in standardized national and internal examinations at the national, county and sub county levels continued until 2014 when the government banned the practice (Wanzala, 2014) as a result of unethical examination malpractices (Ochola, 2011). Despite the ban, malpractices persisted in 2015 (Murori, 2016), suggesting that performance ranking was not really the major cause of examination malpractices. Nevertheless, performance ranking had a great impact on teaching and learning practices employed in schools in Kenya.

The ban on performance ranking in examinations generated heated debate and as a result of the pressure, the government lifted the ban in 2016 but with a significant change in the modalities of inclusion of co-curricular activities (Republic of Kenya, 2016). According to the guidelines, performance ranking was to be based on the students" raw scores in standardized examinations and students achievement in co-curricular activities. However, the new guidelines are yet to be implemented and the rankings are still based on students" raw scores (Nyamwembe, 2020). In order to gain a deeper insight to the issue, a mixed method case study was undertaken to explore the perception of teachers" and students" regarding to school performance rankings in Kenya. The following section provides the research context and the methodology on how the research was conducted.

RESEARCH CONTEXT AND METHODOLOGY

In 2018, a mixed methods case study was carried out with teachers and students of Mathematics in Embu County in Kenya. The primary aim of which was to understand their perceptions of performance rankings in secondary schools. The participants were drawn from public secondary schools in Embu County in Kenya. Embu County is one of the 47 counties in Kenya, and it lies between latitudes 0° 8"and 0° 35" South and longitudes 37° 19" and 37° 42" East. The county covers an area of approximately 2,818 km². In Embu County, there are two categories of secondary schools, namely, public and private. The public secondary schools are further categorized into four types: National, Extra county, County, and Sub-county schools. There are 2 national, 14 extra county, 22 county, 148 sub-county, and 8 private secondary schools in Embu County. The secondary education cycle in Kenya is divided into 4 grades called Forms (Forms 1, 2, 3 and 4).

Purposive sampling was used to select the county (Embu, while multistage stratified sampling was used to obtain a sample of 26 students and 9 teachers drawn from one national, one extra county, two county, two sub-county, and two private schools within Embu County (Table 1). The considerations of various categories of

Table 1. Sample size.

S/N	Category of schools	Teachers' participants		Students' participants	
		Male	Female	Male	Female
1	Private	1	1	2	2
2	National	1	0	3	1
3	Extra county	1	0	2	3
4	County	2	1	3	5
5	Sub-county	0	2	4	1
Total		5	4	14	12

secondary schools were aimed at enhancing the diversity of the sample.

The study aimed at gaining insights into the perceptions of teachers and students on the issues surrounding the performance ranking of students and schools in participant"s natural settings. The study, therefore, adopted a qualitative approach and a case study design. Data were gathered through one-on-one semi-structured interviews and focus group discussions lasting between 40 to 60 minutes. The research instruments (interview guide and focus group discussion guide) were peer reviewed, and a pilot study was conducted to ensure validity and reliability of the instruments. After the pilot study, the research instruments were amended accordingly. The collected data were transcribed and subjected to qualitative data analysis. The interviews and focus group discussions were audio-recorded, transcribed and analyzed for codes, categories, and themes through an iterative back-and-forth process of relating portions of transcriptions and the entire transcription.

FINDINGS AND DISCUSSION

Three broad themes emerged from the data analysis: methodological fairness, teacher accountability, and transition rates. Each theme is discussed in the following.

Methodological fairness

Performance ranking of schools and students in the Kenyan context was aimed at disseminating information on students" performance and hence promote healthy competition between schools. Therefore, the practice would motivate teachers to improve their instructional practices for students learning (Shindler, 2010). Conversely, the publication of results led to examination malpractices which had several effects on teaching and learning. Therefore, the government of Kenya banned the performance ranking of schools and students in 2014 due to unethical examination malpractices such as cheating in standardized national examinations. In 2016 the ban was lifted and the proposed methodology of performance ranking was based on the students" raw score in standardized national examinations and performance in co-curricular activities. Interviews with students and teachers pointed out that the methodology of performance ranking proposed by the Kenyan government

should be revised to include students" raw marks, co-curricular activities, and the students" intake mark in form one.

...... performance ranking should include students raw scores, entry marks in Form one to reflect value-addition on the students by the school and co-curricular activities because there are students who are good in games, athletics drama, etc. This will help so that what the learners engage in and out of class is taken care of during ranking (Teacher in a national school).

Similar sentiments were echoed student-participants and by teachers in a focus group discussion.

.... to fairly use the performance ranking data the methodology used should take into account the students' raw marks, entry mark in form one, and score in out of class activities such as athletics. In this way, performance ranking will keep students motivated to keep on working hard in and out of class (Focus group discussion with teachers in a private school).

Performance ranking is good because it helps students to be motivated to keep on working hard. Whatever, the position one is encouraged to work hard (Form 2 student in a private school).

Results show consensus as far as performance ranking modalities is concerned. It is important to note that the study has revealed that performance ranking was crucial in schools if it was modified to enrich students" scores to reflect all that the students are exposed to in the school. This is an indication that the majority of the respondents opined that performance ranking should not be abolished but revised to reveal the influence of teachers and schools on students" performance. In line with the study findings, Whiston (2009) opined that performance ranking is crucial as it helps students understand how a variety of personal attributes (that is, interests, values preferences, motivations, aptitudes, and skills), impact their potential success and satisfaction with different subjects and work environments

The category of school a student is admitted to makes

a great difference in the students learning outcomes. This is because some schools admit students with low entry marks than other and have adequate teaching and learning resources in comparison with others. Therefore, if the performance ranking of schools and students was to be fairly done it should take into account student"s different starting points and availability of adequate resources (Berliner, 2011). In Kenya, there are four categories of public secondary schools, namely National, Extra County, County, Sub county schools. Up to 2014, before the government banned performance ranking, the practice was unfair as it failed to take care of differences in the socioeconomic status of the school as revealed in this study. Therefore, performance ranking was an ordinal measure and did not measure performance relative to specific standards such as the availability of ample resources from use by students and students" entry marks. During the interviews, it was unanimously agreed that the rankings were misleading because they compared what was incomparable.

Performance ranking is okay but there should be categories of schools because it is unfair to rank sub-county day schools and national schools. After all, the entry behavior of students in those schools is quite different (Teacher in a county school).

It is important to note that in Kenya, students are not randomly placed in secondary schools in the country. This practice promotes the placement of students with high form one entry marks to national schools and those with low entry marks to sub-county schools. Therefore high performance in national schools may not be attached to the influence the school and teachers have on the students" achievement but reflects the category of the students admitted to those schools.

…. performance ranking should not be abolished but should be based on the categories of the schools e.g. nationals. This is because the entry behaviors' are different. The idea of the best schools should not be there because it is not possible to compare the upcoming schools and the established ones. This can end up killing the upcoming schools. Performance ranking should be based on like with like. County secondary schools should not be ranked with sub-county schools because they have differences in teaching and learning resources used by students. The schools do not share the same experience (Teacher in a private school).

Most importantly schools located relatively in low socioeconomic areas cannot achieve the same level of academic performance as schools located in high socioeconomic areas (Neves et al., 2014). Therefore, the ranking should be based on the categories of schools because schools in the same category have many things in common such as student"s entry marks, teaching, and learning resources available. To understand the true picture of the school standings as far as the influence they have on student" performance the government of Kenya should create mechanisms of ensuring equitable distribution of resources and place students to secondary schools randomly.

Teacher accountability

Accountability has become the cornerstone of education reforms. The assumption is that teachers and administrators are held accountable for the students" outcomes in teaching and learning (Hopman, 2008). By measuring students" learning outcomes and holding teachers responsible for the students results, accountability systems tend to create motivations for improved students learning outcomes (Kellaghan and Greaney, 2020). Nevertheless, the data from the study has shown that accountability gave rise to unethical behavior by some teachers such as cheating in examinations and teaching students on test-taking skills as opposed to teaching for conceptual understanding (Rosenkvist, 2010).

……I have taught this school for five years and at the end of each year, the data on student achievement is prepared for all subjects. The top ranked teachers are given letters of exemplary students' students' performance and the low-ranked ones are required to explain the causes of the low rank. Some teachers leak examinations questions to students to obtain a top rank to avoid issues with the administrators. (Form 3 teacher in a county school).

…..teacher whose classes perform better in comparison to the other is usually given the privilege in any appointments. This is because even the employers of teachers recognize and promote the teachers whose subjects are performed well comparatively (form 4 teacher in an extra-county school).

Rewarding or punishing teachers and schools based on students" performance was not only practiced in Kenya as revealed in this study but also it was practiced in other countries. For example, in Texas, schools were assigned ratings based on student outcomes and high performing school received monetary rewards and low performing schools were subjected to state intervention (Toutkoushian and Curtis, 2010). Tying teacher evaluation and sanctions to student"s performance can discourage teachers from willing to work in schools with very needy students and effect teacher collaboration in teaching and learning. Collaboration practices enable teachers to work together across classroom boundaries towards a common goal of educating all students in their maximum potential.

…. teacher evaluation based on his/her class position in the ranking data has been motivating teachers to subject students to a vigorous revision of examination past papers and omitting some crucial areas of the curriculum. In some cases, teachers gave students marks they never deserved to protect their job. In private secondary schools, low students' performance can lead to loss of job (Form 4 teacher in an extra-county school).

As revealed in this study tying teachers" accountability to students" performance motivated teachers to drill students on test-taking strategies neglecting knowledge and skills that are important aspects of the curriculum (Rosenkvist, 2010). As a result of the omission of some aspects of curriculum, students are less prepared for further education and the job market (Berliner, 2011). Therefore, it is important to note that teaching to the test does not necessarily translate to the broader skills that the students are expected to display outside the school environment for example in the job market.

Secondly, trying teacher"s accountability to the class position in the ranking data motivated teachers to inflate the test results, especially in private schools to avoid loss of job due to low performance (Berliner, 2011). Therefore, it is worth noting that the focus of performance ranking data should be for the competition meant to provide incentives for teachers and schools to innovate and create effective learning environments as opposed to reward and promotion of teachers. Most importantly, the test scores can provide an unreliable measure of performance because they are affected by the conditions under which the students" are when taking the tests (Leckie, 2013). Consequently, attaching teacher accountability to students" performance has led to a top rank in the performance ranking data without improvement of students" broader knowledge and understanding.

Moreover, the performance ranking of schools and students can be utilized by students, teachers, and school administrators. The students can use the performance ranking data to identify peers to seek help from in-classroom discourses. While the school administrators and teachers can use the data to identify the underperforming classes for remediation and use the top classes for benchmarking purposes (Rosenkvist, 2010).

Transition rates

Based on this study, transition rates refer to the percentage of students who officially complete the four-year secondary school cycle and sit for Kenya Certificate of Secondary Education Examinations (Koech et al., 2017). Transition rates in secondary schools are affected by some students" who drop out of school due to various factors. One of the factors is the forced repetition of

classes due to low performance. In forced repetition, students are required by the school administration to remain in the same class for an additional school year to give struggling students academically more time to master the appropriate content for the school to appear at the top of the rank. Therefore, secondary school ranking has encouraged the school administration to use such an unethical approach to achieve top rank in the performance ranking data. A good number of students made to repeat cannot endure more frustration and drop out of school affecting transition rates (Koech et al., 2017).

I feel performance ranking should be based on students' improvement mark. This will allow all the students to appear at the top of the rank at one time or the other. If student's raw scores continue to be used somebody like me will always remain at the bottom of the rank and most likely I will be forced to repeat Form three. If that happens I will transfer to another school or drop out of school to pursue a course in masonry (Form 3 student in a county school).

Students at the bottom of the rank are embarrassed by teachers during closing assembly ceremonies. When releasing the academic performance data teachers mock the bottom three students by remarking that they are leading from the bottom and competing for the bottom ranks. The majority of the students have dropped out of the school due to such embarrassment (Focus group discussion with student–participants in an extra-county school).

The study revealed that students dislike the idea of forced repetition with the majority preferring to seek admission to another school rather than to repeat in the same school. If the opportunity in another school is not available the students prefer to drop out of school. Additionally, students drop out of school as a result of the way the low ranked students are embarrassed during academic ceremonies during the announcement of student"s academic performance by teachers as revealed during a focus group discussion with students. The examination aims to identify the students" gaps in education and not embarrassing them especially in school end term closing ceremonies when announcing students" academic performance.

Implications of performance ranking for policy and practice

Respondents as well as the literature on performance rankings concur that policymakers need to orchestrate the development of methodologies of performance ranking that can facilitate authentic teaching and learning experiences. In particular, there is need for performance ranking methodologies that provide a broader picture of individual school and student achievement. This would

lead to equity and justice in resource allocations. More resources channeled to low performers as a motivation to work hard and improve their performance and the top-ranked schools being approved as the centers of excellence. Further, policymakers can propose a ranking methodology that identifies the unique strengths of students and schools building on them more effectively to encourage engagement of students in learning. Engaged students are more emotionally connected to what they are learning and contribute positively to the learning process. Finally, educational policymakers" considerations of giving incentives or awarding teachers based on school or student performance in the league table might reflect on the research literature and research findings in this article that has highlighted the adverse effects of performance related incentive schemes.

A good performance ranking methodology ensures the responsibilities and accountability of school principals are increased. Their work and representations are impacted by the ranking of their schools. Those whose schools appear at the top of the rank are promoted and enjoy the privilege of being a representative of the rest in the school principals at national levels in education decision-making forums. Most directly, performance ranking inform decision making to make changes for continuous improvement of school programs. Further, hard work is rewarded while encouraging low achievers to work hard to enjoy the fruits of hard work and help the school community to set up strategic goals for excellent student academic outcomes.

Conclusion

This paper has considered the origins, methodologies, merits, and demerits of performance ranking. Additionally, the paper has presented the Kenyan experience of performance ranking on issues concerning methodological fairness, teacher accountability, and transition rates. Further, the paper discussed the implications of performance ranking on policy and practice. As noted in this paper, there often exists a discrepancy in performance ranking from one country to another. Some countries make use of students" raw marks, others value-addition index while others make use of contextual value-addition index. This paper revealed that there is a paradigm shift from value-addition index to contextual value-addition. The reason behind the change is that the contextual value-addition index is a fair measure of students and school achievement as it adjusts for students" intake differences between schools to measure the effects schools and teachers have on the students. In the Kenya experience, the paper revealed that the proposed methodology in performance ranking after the ban was lifted should be reviewed to take care of student entry behavior and ranking schools to be based on their categories.

In this paper, the literature showed that performance ranking affects students" performance in general as the weak students are discouraged while the best performing students are motivated to put more effort into their study. Discouragement of students results because of the way performance ranking is done for the practice fails to take into consideration disparities in such aspects as availability of teaching/learning resources and student"s entry marks among others. Therefore, to ensure equity and justice in education, this study revealed that contextual value-added measure is a fairer measure of students" and schools" academic achievement.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests

REFERENCES

Akers J, Migoli J, Nzomo J (2001). Identifying and addressing the causes of declining participation rates in Kenyan primary schools. International Journal of Educational Development 21(1):361-74.

Akuffo-Badoo F (2017). Impact of District performance league tables on performance at the Basic Education Certificate Examination in Ghana. Journal of Educational Assessment in Africa 12(1) 74-83.

Amunga JK, Amadalo MM, Maiyo JK (2010). Ranking of secondary schools and students in national examinations: The perception of teachers and students. Problems of Education in the 21st Century 20(1):10-24.

Annala M (2015, 11). Ranking high schools in Finland? Retrieved from http://www.ewa.org/blog-educated-reporter/ranking-high-school Finland.

Ball SJ (2009). Privatizing education, privatizing education policy, privatizing educational research: Network governance and the "competition state". Journal of Education Policy 24(1):83-89.

Benson M, Bridge G, Wilson D (2015). School choice in London and Paris: A comparison of middle-class strategies. Social Policy and Administration 49(1):24-43.

Berliner D (2011). Rational responses to high stakes testing: The case of curriculum narrowing and the harm that follows. Cambridge Journal of Education 41(3):287-302.

Blackmon WK (2017). Using a value-added model to measure private school performance in Tanzania. Masters Dissertation, Georgetown University, Washington, D.C.

Bogonko SN (1992). Reflection on education in East Africa. Nairobi. Oxford University Press.

Cherry TL, Ellis LV (2005). Does rank-order grading improve student performance? International Review of Economics Education 4(1):9-19.

Cizek GJ (2001). Cheating to the test: What to do about it. Education Matters 1 (1). Retrieved August 5, 2020, from https://www.educationnext.org/cheatingtothetest/

Clarke M (2002). Some guidelines for academic quality rankings. Higher Education in Europe 27(4):443-459.

Cobbold T (2004) Reporting on School Performance. A paper prepared for the ACT Minister for education and training. Government Schools Education Council.

Cobbold T (2010). Publication of school results and league tables harm education. Save our Schools Research paper. Retrieved from http://www.saveourschools.com.au

Dearden L, Vignoles A (2011). Schools, markets, and league tables. Fiscal Studies 32(2):179-186.

Downes D, Vindurampulle O (2007). Value-added measures for school improvement. East Melbourne, Vic.: Dept. of Education and Early Childhood Development.

Elks P (2016). Lessons learned from introducing value-added

performance measures in Uganda. Downloaded from www.heart-resources.org

Galton M, Gray JM, Ruddock J (2003). Transfer and transitions in the middle years of schooling (7-14): Continuities and discontinuities in learning. Cambridge: Queen„s Printer.

Gillborn D, Youdell D (1999). „Weakest not at the table". The Times Educational Supplement, 26 November.

Goldstein H (2001). Using pupil performance data for judging schools and teachers: Scope and limitations. British Educational Research Journal 27(4):433-442.

Goldstein H (2013). Evaluating educational changes: A statistical perspective. Revista Ensaio: Avaliação e Políticas Públicas em Educação 21(78):101-114.

Greaney V, Kellaghan T (2004). Assessing educational performance in Africa. Washington, D.C: World Bank Publications.

Harris DN (2011). Value-added measures in education: What every educator needs to know. Cambridge: Harvard Education Press.

Hopman ST (2008). No child, no school, no state left behind: Schooling in the age of accountability. Journal of Curriculum Studies 40(4):417-456.

Kellaghan T, Greaney V (2001). Using Assessment to Improve the Quality of Education. Paris: International Institute for Educational Planning.

Kellaghan T, Greaney V (2020). Public examinations examined. Washington, DC: The World Bank.

Kellaghan T, Grenaney V, Murray S (2009). National assessments of educational achievement volume 5: Using the results of a national assessment of educational achievement. The World Bank. https://doi.org/10.1596/978-0-8213-7929-5

Koech JK, Ayodo TMO, Ngare NN (2017). Free day secondary education. Causes of high dropout rates of students in secondary schools in Kipkelion sub-county, Kericho county. Kabarak Journal of Research and Innovation 5(1):1-11.

Koretz DM (2002). Limitations in the use of achievement tests as measures of educators" Productivity. Journal of Human Resources 37(4):752-777.

Leckie G (2013). England"s multilevel model based value-added school league tables: Measuring and communicating statistical uncertainty to parents. Bulletin of the International Statistical Institute 68:824-829.

Leckie G, Goldstein H (2009).The evolution of school league tables in England 1992-2016: „Contextual value-added", „expected progress" and „progress 8". British Educational Research Journal 2(43):193-212.

Leckie G, Goldstein H (2019). The importance of adjusting for pupil background in school value-added models: A study of Progress 8 and school accountability in England. British Educational Research Journal 45(3):518-537.

Limangura J, Wambua KB, Joseph L (2017). Stakeholders' perception towards the abolition of the ranking of students and schools in national examinations in secondary schools in Kenya: A case of West Pokot County. European Journal of Social Sciences Studies 2(7):80-99.

Lucas A, Mbiti I (2013). Effects of school quality on Student Achievement: Discontinuity Evidence from Kenya. Working paper no. 2014-3 retrieved from https://lerner.udel.edu/sites/default/files/ECON/PDFs/RePEc/dlw/WorkingPapers/2014/UDWP2014-03.pdf

Maiyo J, Owiye J, Nandi CR (2010). Social challenges facing heads of schools in the process of enacting the Children"s Act (2001). Problems of Education in the 21st Century (21):109-119.

McEwan PJ, Urquiola M, Vegas E, Fernandes R, Gallego FA (2008). School choice, stratification, and information on school performance: Lessons from Chile. Economia 8(2):1-42.

Murori K (2016). Exam cheating in Kenya hits 71%, as KCSE Results prove upsurge of the vice: The African Exponent. Retrieved from https://www.africanexponent.com/post/kcse-results-prove-upsurge-of-exam-cheating-in-kenya-2172

Neves T, Pereira M J, Nata G (2014). Headteachers' perceptions of secondary school rankings: Their nature, media coverage, and impact on schools and the educational arena. Education as Change 18(2):211-225.

Njue EK, Muthaa GM, Muriungi PK (2014). Effectiveness of examination handling and distribution procedures in curbing malpractices in secondary schools in Eastern province, Kenya. Creative Education 5(8):573-579.

Nor M (2014). Potentials of contextual value-added measures in assisting schools become more effective. International Education Studies 7(13):75-91.

Nunes C, Reis AB, Seabra C (2015). The publication of school rankings: A step toward increased accountability? Economics of Education Review 49:15-23.

Nyamwembe D (2020, January 6). List of top 100 schools KCSE 2019 as per their mean scores. Retrieved from Jambo News: Retrieved on February 11, 2020, from https://www.jambonews.co.ke/list-of-top-100-schools-kcse-2019-as-per-their-mean-scores/

Ochola JO (2011). Determinants of examination malpractices in Kenya Certificate of Secondary Education (KCSE) examinations in secondary schools in Nyakach District Kenya. (Unpublished master's thesis). Nairobi: University of Nairobi.

Ozek U (2009). The effects of open enrolment on school choice and student outcomes. Calder Working Paper 26, National Center for Analysis of Longitudinal Data in Education Research.

Parveva T, De Coster I, Noorani S (2009). National testing of pupils in Europe: Objectives, organization, and use of results. Brussels: Education, Audiovisual & Culture Executive Agency. Retrieved August 20, 2020, from http://www.eurydice.org

Reed J, Hallgarten J (2003). Time to say goodbye? The future of school performance tables. London: Institute of Public Policy Research.

Republic of Kenya (2016). Kenya gazette supplement no.151 (Acts No.30). Nairobi, Government printer.

Rosenkvist MA (2010). Using student test results for accountability and improvement: A literature review (OECD Education Working Papers No. 54). OECD Publishing. Retrieved August 20, 2020, from https://doi.org/10.1787/5km4htwzbv30-en

Sander W (2000). Parochial schools and student achievement: Findings for older adults. Education Economics 8(3):259-268.

Shindler J (2010). Transformative classroom management: Positive strategies to engage all students and promote a psychology of success (1st ed).San Francisco: Jossey-Bass.

Somerset A (1987). Examination reform: The Kenya experience. Washington, DC: World Bank.

Timmermans AC, Bosker RJ, de Wolf IF, Doolaard S, van der Werf MPC (2014). Value-added based on educational positions in Dutch secondary education. British Educational Research Journal 40(6):1057-1082.

Toutkoushian KR, Curtis T (2010). Effects of socioeconomic factors on public high school outcomes and rankings. Journal of Educational Research 98(5):259-271.

Troncoso P, Pampaka M, Olsen W (2016). Beyond traditional school value-added models: A multilevel analysis of complex school effects in Chile. School Effectiveness and School Improvement 27(3):293-314.

Tyumeneva Y (2013). Disseminating and using student assessment information in Russia. Washington, DC: World Bank.

Wanzala O (2014). The government abolishes student and school ranking on examinations. Retrieved May 6, 2020, from https://www.nation.co.ke/news/Govt-abolishes-students-and-schools-ranking-on-exam-performance/1056-2538402-kmnjje/index.html

Whiston SC (2009). Principles and applications of assessment in counseling (3rd ed). Australia ; Belmont, CA: Brooks/Cole, Cengage Learning.

Whitty G, Power S, Halpin D (1998). Devolution and choice in education: The school, the state, and the market. Buckingham: Open University Press.

Wilson D, Piebalga A (2008). Performance measures, ranking, and parental choice: An analysis of the English school league tables. International Public Management Journal 11(3):344-366.