

Computerized School Selection and Placement System in The Greater Accra Region of Ghana: Perception of Stakeholders

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Submitted: 21 May 2020; Accepted: 10 Jun 2020; Published: 12 Jun 2020

Abstract

The study was intended to find out whether the Computerized School Selection and Placement System (CSSPS) was a better alternative to the manual system in the process of selection of qualified students in the Senior High Schools (SHSs) in the Greater Accra Region of Ghana. A sample size of 306 was selected from a population of 994. Stratified and simple random sampling procedures were employed to select the subjects in the study sample. Respondents to the questionnaire and interview were randomly selected. A pilot study was conducted in the Eastern Region to test the validity and reliability of the instrument. The Cronbach alpha coefficient reliability at 0.7 was recorded. The data generated was processed and converted into percentages to facilitate the analysis and discussion processes. The results indicated that the introduction of the CSSPS did not significantly increase enrolment in the least endowed schools; neither did it minimize the preference for endowed schools. However, the CSSPS significantly minimized the human errors that characterized the manual system and accelerated the rate of selection and placement process. The major challenge to the CSSPS was the human factor in terms of refusal of parents and students to accept placement into other schools apart from their chosen endowed schools. It is recommended that the CSSPS should be used in combination with other placement systems such as the Random Placement Systems to achieve a mixed talent distribution of students across the schools in the study area.

Keywords: Selection, Placement, Stakeholders

Introduction

In 1987, the Government of Ghana adopted a new educational system comprising six years of primary school, three years Junior Secondary School (JSS), three years Senior Secondary School (SSS) and four years University Education. This 6-3-3-4 structure of education was part of a reform initiated to address deficiencies in the Public Education System. The long-term objective of the reform was to achieve Universal Basic Education and also to expand and increase access to secondary and tertiary education Computerized School Selection and Placement System (CSSPS) Report, [1].

To achieve the stated objective, the education system was given a new approach with emphasis on quality and diversification of content. A major feature under the reform was the introduction of

the Basic Education Certificate Examination (BECE) which is written at the end of the 9-year basic school. The BECE was introduced to replace the Common Entrance Examination which was conducted to select candidates. The BECE results have since constituted the basis and criteria for selection and placement of students into second cycle institutions as well as certification of Senior High School (SHS) and Junior High School (JHS), graduates. The parameters for admission and placement have been to use aggregate 6–30 as the cut-off point for a candidate to qualify for placement. Prior to 2005, selection and placement into the Senior High Schools was done manually through hand picking of cards. Parents were expected to buy entry forms in advance before their wards were allowed to take the entry examination, that is, the BECE organized by the West African Examinations Council (WAEC). After the examination, the test scores which were aggregate scores, together with the entry cards were sent to a central location, where the selection of

qualified candidates took place manually. The central location was most often a big school, with enough facilities to accommodate the selection officials, comprising heads of Senior High Schools and their assistants as well as personnel from the Regional Education Offices. The official manual selection process spanned three days. The entry cards together with the examination scores were grouped according to the existing schools. All the entry cards of candidates who chose a particular school as their first choice were given to the Head of that school. That is, if one thousand candidates chose Achimota School as their first choice, the thousand cards were officially given to the Head. The headmasters or headmistresses and their assistants subsequently scanned through the cards manually to select candidates whose examination scores satisfied the individual standards set by the various schools according to their existing vacancies. After that the remaining cards were sent to the second-choice schools of the candidates. Where the examination scores or aggregate of a candidate did not meet the requirements of the second-choice school, the cards were returned to a particular place normally referred to as the “pool”. Heads of schools, who could not get their required number of candidates from their first, second and third choices, scan through the ‘pool’ to make up for the vacant positions. After the three days of selection some heads of less popular schools later go back to regional offices where the remaining regional-based cards are kept to look for cards to finally fill the vacant places left by candidates, who were not able to respond to the placement positions offered them. This manual system of selection and placement was very laborious and for many years constituted a source of worry, stress and frustration to parents, heads of second cycle institutions, candidates and many stakeholders in the educational enterprise. Issues of missing cards, wrong choices of programmes, rejection of second and third – choice candidates by heads of institutions, the inability of candidates to select schools from more than one region were some of the problems that were associated with the manual system.

The result of all these is that many candidates did not gain admission to Secondary Schools. The Ministry of Education Report noted that since 1990 the number of qualified candidates has always been far in excess of available spaces to accommodate them in the various designated institutions [2]. The report also showed that, between 1990 and 2000 and ever since about 250, 000 students sat for the BECE each year. Out of this number, about 150,000 (64.2%) candidates qualify for placement in second cycle institutions. However, only 64,000 – 70,000 (42 – 46.6%) graduates eventually got admitted into the various schools. The situation became exacerbated, when it was noted that after the year 2005, over 300,000 candidates wrote the BECE annual

From the year 2006, the number kept increasing progressively annually above 300,000 students as shown in Table 1. Out of these numbers approximately 60% qualify for placement but only 30% finally got admission into the existing schools through the manual selection process.

Table 1: BECE Results 1998 - 2009

Year	No. of candidates	No. of passes	% Pass rate
2009	395,599	246,872	62.40
2008	338,290	210,282	62.16
2007	320,247	196,240	61.28
2006	308,383	190,924	61.91
2005	287,297	176,959	61.59
2004	278,391	170,324	61.18
2003	268,284	163,613	60.99
2002	264,979	160,262	60.48
2001	247,663	149,600	60.40
2000	233,785	141,535	60.54
1999	233,740	140,729	60.21
1998	229,432	138,477	60.36

Source: Ajayi [3]

Furthermore, there were issues of imbalances in the enrolment and quality of students admitted. The report noted that whereas a few well-endowed schools were over enrolled, the community-based schools were unable to attract students. According to the Education Review Report, over seventy-five (75) Senior Secondary Schools had enrolment less than hundred (100) students as at 2002 and the well-endowed schools succeeded in admitting only the cream of candidates thereby widening the gap between them and the least endowed schools.

The myriad of problems that besotted the manual system of placement compelled the Ministry of Education and the Ghana Education Service to decide in 2003, to computerize the selection and placement of candidates into Senior Secondary Schools and Technical / Vocational Institutions, hence the introduction of the Computerized School Selection and Placement System (CSSPS) in September, 2005. The process begins with BECE candidates completing specially designed selection cards and scannable forms for processing by computer software developed for that purpose.

The initial qualification for selecting a candidate is candidate’s BECE performance in six subjects. These comprise four core subjects - English Language, Mathematics, Science and Social Studies - and two elective subjects. To qualify for placement, a candidate’s grade in any of the six (6) subjects should not exceed five (5). This translates into a minimum aggregate of thirty (30) for the six subjects.

Candidates are at liberty to choose four schools from any number of regions that they wish; but the four choices must be listed in order of preference, with the correct code of each school indicated as directed on the Registration or Scannable (Entry) Forms. It is expected that this arrangement will make schools located in rural settings of the country to get students, especially in their operational zones. Candidates are advised to make sure that their preferred programmes are offered in the schools of their choice. The correct code for each programme must be correctly quoted. Each school selected must go with a specific programme [4]. One unique feature about the CSSPS is that candidates are free to select the

same school four times, but with different programmes selected in each case. However, if preference is on a specific programme then different schools offering the programme must be selected [4]. In the event of a tie between candidates at the cut-off point during the selection and placement process, the computer considers key subjects for the programme chosen and selects the candidate with the highest score in that programme category.

Systems of placement are not always 100% perfect and may be characterized with few short falls. The direct beneficiaries of the system are therefore made aware of their responsibilities. The objectives of the identification of the responsibilities are to minimize the impact of the imperfections of the system when BECE results and placement lists are released. The students are schooled explicitly on the requirements of the CSSPS placement procedures. They are made aware that, admission to schools and programmes are very competitive, hence, placement in the preferred school and programme depends on the student's own hard work. Students are therefore advised to assess themselves very well in terms of their academic capabilities before making their choice of schools and programmes. Students are advised to choose schools that they are certain to secure placement in. Similarly, parents are informed that, placement of their wards in the chosen school and programme is purely a function of the child's performance at the BECE and the available vacancies and choice of programme. Parents cannot change their minds once the choices and placements have been made. In the event of non-placement after the first run the ward may be placed in a school with vacancy.

The JSS school authorities are required to keep accurate and reliable records of performance of the students to assist in the determination of choice of schools and programmes. To this end, selected teachers are to be trained as Guidance and Counseling Officers. They should be solely responsible for the compilation and analysis of the cumulative records of the students from JSS 1 to 3. Junior Secondary Schools now Junior High Schools, classroom and subject teachers are tasked to thoroughly cover the syllabus and assess the students regularly.

Statement of the Problem

Prior to the inception of the Computerized School Selection and Placement System (CSSPS), the selection and placement of students in second cycle institutions were mechanical and manual. The manual system was laborious and time-consuming. It was also characterized by several imperfections and flaws such as misplacement of student registration cards/forms, wrong shading of index and code numbers by students and heads of Junior High Schools (JHSs), undue delay in admissions as well as loss of admission letters. Furthermore, the manual system was highly susceptible to human manipulation and machinations such as bribery and corruption. Rich and influential parents used their financial influence to secure placement for their wards in good and well-endowed schools to the detriment of good students from poor homes. Similarly, the influence and pressure from "old boys" and "old girls" associations, PTA officials, protocol admissions and greed by some heads of second cycle institutions plagued the admission procedures of the manual system.

Additionally, before the introduction of the CSSPS innovation, heads of very good and endowed schools arbitrarily and unilaterally set high personal cut-off grade points and admission standards to attract only the exceptionally good/gifted students to the detriment of the less brilliant and rural setting students. Furthermore, in the era of the manual system, the period of the release of the BECE results was a terrible period for parents and students. Anxious parents had to travel to the selected schools of their wards to ascertain the admission status of their wards and to pay the admission fee promptly to secure the place else it will be given to another person.

Undoubtedly, these problems that saddled the manual system made it unsuitable as a selection and placement tool. But the question that is often asked is whether the CSSPS has succeeded in surmounting the inadequacies that were inherent in the manual system. The present study, therefore seeks to find out whether in the opinion of the stakeholders in education the CSSPS is a better alternative to the manual system.

Purpose of the Study

The purpose of the study was to find out whether the CSSPS provides a better alternative to the manual system of selecting and placing of qualified Basic Education Certificate Examination (B.E.C.E) candidates into Senior High Schools.

Research questions

1. What has been the effect of the Computerized School Selection and Placement System (CSSPS) on enrolment in the least endowed schools?
2. What are the perceptions of major stakeholders on the CSSPS?

Significance of the Study

Human society resists change because it fears the unknown and the unpredictability associated with not knowing what the change will bring. Frequent resistance to change is manifested in the ideas and perceptions that stakeholders express and have about the intended change. The study synthesized the perceptions and conceptions that the stakeholders expressed about the CSSPS. Ideas that were not initially envisaged and captured in the development of the software and the solutions to the human inadequacies associated with the manual system had been addressed. These syntheses added to what prevails, will improve the functioning of the system and help to eliminate the resistances to the perfect operation of the system. The work being a maiden work might serve as a rich source of information and as source of reference to subsequent projects. The findings will provide an insight into the workings of the CSSPS both to the stakeholders and its operators so as to improve its functioning when it is warranted

Limitations of the Study

The study aimed at analyzing the perception of stakeholders with reference to the use of the CSSPS for selection and placement of candidates into Senior High Schools in the Greater Accra Region. One limitation was the inability to cover a larger number of second

cycle institutions in Ghana. Another limitation was the subjectivity with which the heads of SHSs interpret the criteria of endowment in the classification of their schools. Again, due to the short time the CSSPS has been in operation, the findings could not unearth all the inhibitions that are inherent and associated in the working of the system.

The Concepts of Selection and Placement

Selection and placement activities typically focus on the student's knowledge, skills and abilities. Selection is concerned with screening and choosing between competing programmes, alternatives or students as subsumed in test scores. The selection of students for admission into Senior High Schools (SHSs) in Ghana is based on merit by ranking their test scores at the BECE. Similarly, the Common Entrance for Teacher Training Colleges as well as the erstwhile Common Entrance Examination to secondary institutions made use of the test scores of students. Apart from the national selection exercises using test scores, teachers and school administrators organize late entrance examinations and interview for candidates for selection and placement purposes.

Furthermore, apart from selection and placement exercises in the educational institutions and systems, business organizations also engage in competitive employment and promotion policies, which also involve selection and placement. Applicants for positions are made to compete against each other for employment and promotion as opposed to the policy of employing or promoting anybody who has the minimum qualification. For higher positions, thorough screening and selection is done to pick the best fit-candidate. Variations exist in the basic processes of selection based on the organization's size, nature and the job position to be filled; hence, electronic technology processes are employed in some selection processes. One type of screening and selection uses computer software to scan applications submitted for keywords such as sex and codes. Some companies also use "text searching" an Artificial Intelligence (AI) software to scan, score and track applications for selection, appointment and eventual placement.

The ultimate purpose of selection is placement or fitting a student, candidate or person into the right institution, programme or job. Placement can therefore be said to be an integral part of selection. It involves putting a student into the right school and programme after the process of screening. The placement exercise is guided by availability of vacancies and possession of the requisite qualification or grade. Promotion from one class to another is based on the level of performance of the students at the previous level or examination.

Selection and Placement Mechanisms

Ajayi examined mechanisms designed for optimal approach to school placement [3]. His examination focused largely on the design of school choice programmes for admission into American public high schools. Student preferences are evidently a key factor to consider in satisfying demand for schooling; firstly, for student welfare purposes and secondly to ensure compliance to placement. Hence, an optimal school assignment/placement mechanism should take into consideration student ranking of the various

available options. He noted that in an ideal world, demand will exclusively determine school placement. This is an open enrolment policy which will be particularly effective in low-income settings, where there are high returns to education. However, open enrolment is only feasible in a situation in which there are adequate resources to accommodate any level of demand for each school. Open enrolment classically provides a means to increase access to education but require an increase in the availability of secondary school places so that, every student wishing to attend a secondary school could do so.

In the majority of cases, there are limited resources and places. There is also a substantial variation in school quality; hence the government must devise appropriate procedures, mechanisms and systems to allocate the available places. The most important issue in the placement system is how to discriminate between students with respect to granting their preferred school choices and programmes. Several possible assignment/placement mechanisms that one can choose from co-exist including:

1. Merit based placement procedures.
2. Socio-economic equality system.
3. Random assignment.

The three selection and placement mechanisms are described in detail below.

The Merit – Based Placement System

The merit-based placement system involves tracking and sorting of students based on their abilities. Students are sorted and placed in homogenous ability classes for teaching, as it happens in Kenya. The merit-based placement is often a preferred mechanism for selection and placement, when the intention is for maximizing educational attainment. It is desirable when there is the belief that, there are benefits in sorting of students into homogeneous groups for teaching. In their evaluation of a randomized primary school tracking intervention in Kenya, Duflo, Dupas and Kremer found out that there is benefit to sorting of students throughout the distribution [5]. Their study also found out that ability differences largely correlated with age differences in that at older ages, test scores may closely reflect intrinsic student ability. They again found out that merit-based selection and placement systems are beneficial to the extent that, the potential of attending a good quality and well-endowed school provides students with an incentive for strong academic performance prior to secondary school and the prospect of qualification and promotion to tertiary education and this provides incentives to sustained academic performance throughout secondary school.

However, there are some reservations about the merit-based systems of placement. The argument is that merit is often determined through testing and that test performance is often determined by factors other than pure ability. In particular, test scores may be affected by the socio-economic background of the student (i.e. the parent's socio-economic standing). Merit-based placement policies therefore disadvantage students from low

socio- economic backgrounds and minority groups. It will also reinforce the intra-generational transmission of low quality of educational attainment and poverty.

The Socio-Economic Equality Placement System

The primary goal of the socio-economic equality placement system is to expand access to education and to provide equal opportunities to students of all backgrounds. This system calls for a policy of affirmative action for low-income or disadvantaged students. However, a system which combines merit-based systems with affirmative action has the potential to offer a means of rewarding academic achievement, while still addressing socio-economic inequality or imbalances. Affirmative actions in this context imply agreement, approval and a positive attitude to support the placement system and to make it succeed.

The Random Placement System

This involves the allocation of a lottery number to students and assigning them to a school in a randomly generated order. This has been a preferred approach in secondary school choice programmes in the United States of America (USA). It is often used in combination with other placement systems or mechanisms. One benefit of the random placement system is achieving a balanced mix of characteristics across schools. This appeals to the concept of fairness and it is also desirable for political expediency. However, the random selection and placement system raises concern about the relationship between student performance, heterogeneity and private benefit in that, private benefit may be lower than the social benefit in certain sub-populations.

Finally, an important issue that plagues school selection and placement systems is the extent to which official allocation are enforced in practice. Some systems explicitly accommodate additional factors such as placement of siblings or the history of previously attended schools into the official assignment process. In other cases, informal allocation channels operate alongside the official mechanism and this leads to undermine the formal procedure.

In concluding this section on the various types of selection and placement mechanisms, it must be emphasized that the optimal design of placement mechanism is largely a function of the desired outcomes of the school selection and placement process.

School Selection and Placement Systems in Ghana prior to the CSSPS

Prior to the inception of the Junior Secondary School (JSS) and the Basic Certificate Examination (BECE) as the entry assessment procedure for placement of qualified students into the second cycle institutions, the Common Entrance Examination (CEE) was the assessment medium for qualification into the second cycle schools (that is present day Senior High Schools).

The Common Entrance Examination consisted of a four (4) battery subject examination papers which were written in one day. The examinable areas were;

- a. English Composition

- b. English Comprehension, grammar and summary.

- c. Mathematics and

- d. General paper

A total of 400 marks were involved.

Apart from the general 50% pass total of two hundred (200) score, individual schools set their standard cut-off points for qualification and placement into such so - called endowed schools. Some of such cut off marks were as high as 300 and 350 out of a total of 400 marks. This created an inequitable access to secondary education.

The 1987 education reforms introduced, the Basic Education Certificate Examination (BECE) as the entry medium into second cycle institutions. The BECE involved examination in 9 subjects. These were taken over a period of five (4) days. The subjects are categorized into core and elective subjects:

Core Subjects	Elective Subjects
a. English	Agricultural science
b. Mathematics	Pre-Technical Skills
c. Integrated Science	Ghanaian Language
d. Social Studies	French

The entry requirements were based on aggregate scores of students. The scores were graded 1 to 9 with 1 being excellent and 9 a failure. Again, apart from the legal aggregate of 30 as the cut-off aggregate for entry into Senior High School, individual endowed schools established their special qualification and placement standards which ranged from the terminology of “six-ones” and “nine-ones”. This phenomenon again created anxiety among parents and unequal access to endowed schools to the detriments of the less endowed schools and especially the Senior High Schools (SHSs) situated in the rural areas and less accessible areas.

The process of selection and placement with reference to the Common Entrance and the Basic Education Certificate Examination (B.E.C.E) were manual. The Manual System of Selection and Placement (MSSP) was cumbersome and characterized with a myriad of problems. The most prominent problems that were associated with the manual system were allegations of bribery, corruption, and favouritism. Added to these problems are, the under listed as indicated by the CSSPS Report [1].

- a. Bribery and Corruption
- b. Delay in selection and placement of qualified students
- c. Loss of registration cards
- d. Frustration, desperation and pressure on parents to secure good schools for their wards.
- e. Wrong shading of names, code numbers and sex codes

Many commentators and stakeholders commented on the problems associated with the B.E.C.E. and the manual system of selection and placement of qualified graduates into the Senior High School

system. Somuah described the manual system of selection and placement as being characterized by administrative, logistic, technical, social and psychological problems [6]. She indicated that the selection was regionalized and cumbersome. The selection was based on aggregate scores of candidates. It also involves a large number of key players namely, District Education Directors, Heads of Senior High Schools, Technical and Vocational Institutes, parents and politicians, thus making the selection and placement process laborious and cumbersome.

Blay complained that some aspects of the 1987 education reforms have rather worsened the fortunes of their target group and denied them of short and long-term opportunities [7]. The critical issue he examined was the grading system of individual subjects in the (BECE) and their implications for candidate's

admission into second cycle institutions through the manual system. The grading system made some top and popular SHSs especially those offering General Science and Business to set their cut-off points termed "ten ones" to determine the suitability of prospective students. The criterion for the cut-off point was the prerogative of the heads of institution and their oversight Board of Directors. The purpose was to get the best students out of the lot, to facilitate the turning out of excellent products and examination results. Hence at the manual selection centers, the heads only select cards of the "ten ones" candidates thus leaving others that have chosen the top schools as the first choice but with less attractive results to their fate.

Blay described the B.E.C.E and the manual selection process as a flaw in the selection criterion, perpetuated by lopsided grading policy which did not actually select the best/true students. He offered the solution of the reintroduction of Common Entrance selection process which in itself was manual in nature became obsolete and was replaced by the B.E.C.E manual selection process. The deficiencies inherent and associated with the manual system of selection and placement has forced many organizations in addition to the MOE/GES to adopt an automated computerized system of placement, for example the National Service Scheme employed the CSSPS to select and post its 2007 service personnel.

The Computerized School Selection and Placement System in Ghana

The CSSPS is the acronym for Computerized School Selection and Placement System. It is an automated merit-based computerized system which has replaced the laborious manual system of selection and placement (MSSP) of qualified BECE candidates into second cycle (Senior High Schools (SHS) and Technical/Vocational) institutions in Ghana.

The CSSPS was introduced in 2005 as part of the Ministry of Education (MOE) and Ghana Education Service (GES) grand plan of programmes and interventions intended to expand access and improve the quality of education through teaching and learning as well as curricular development. The implementation of programmes and interventions was facilitated with the support of

stakeholders in education who also include Non-Governmental Organizations (NGOs) and development partners. The main objectives for the introduction of the CSSPS were; to improve and enhance efficiency in the school transition process (that is transition from JHS to SHS); increase transparency, fairness and cost-effectiveness. Added to these was to increase access and participation in secondary education and finally to ensure equity and speed in the selection and placement process [3]. To be eligible for consideration by the CSSPS process, candidates have to complete specially designed cards and scannable forms for processing by a computer software which was specifically and specially developed for the system.

Since 2005, the process of selection and placement into SHS / TECH / VOC. has been computerized. The main objectives for the introduction of the CSSPS were:

- a. Promoting efficiency
- b. Transparency
- c. Fairness
- d. Equity and speed in selection and placement

The main features of the CSSPS are as follows;

Selection is based on scores of six subjects. A total of six subjects are used for selection; this comprises four core subjects and two other best subjects. The core subjects are English, Mathematics, Science and Social Studies for Senior High Schools. For technical institutions, Pre-Technical Skills replace Social Studies as the fourth core subject.

- a. To qualify for selection and placement candidates' grade in any of the four core subjects should not exceed five.
- b. The minimum grade for each of the best other two subjects should not exceed six and if added to the four core subjects must not exceed an aggregate of 30. A candidate whose grade for any of the core subjects exceeds five or cancelled by the West African Examinations Council (WAEC) will be deemed as not qualified for selection and placement.

Perception of Stakeholders on the Computerized School Selection and Placement System (CSSPS) The Concept of Perception

The word perception comes from the Latin words "perception, Percipio" and means receiving, collecting, action of taking possession, apprehension with the mind and senses. What one perceives is a result of interplays between past experience, including one's culture and the interpretation of the perceived. Szilagyi is of the view that, perception is the process by which individuals attend to incoming stimuli and organize or interpret such stimuli into a message that in turn indicate an appropriate action [8]. The theory of self-perception explained that perception is the way we perceive our own attitudes, preferences and failing by considering our thoughts, our behaviours and the situation in which it took place whether they are situational constraints which explain the behaviour [9]. In philosophy, psychology and cognitive science, perception is the process of attaining awareness or understanding of sensory information. Perception can therefore be

considered as an awareness, understanding or intuition into something or the truth. Such insight enables the person concerned to make a qualitative distinction between objects, processes and issues in question.

Additionally, Lindsay & Norman explained that perception is the process by which organisms interpret and organize sensation to produce a meaningful experience of the world [10]. It describes one's ultimate experience of the world and typically involves processing of sensory input. Perception in humans describes the process whereby sensory stimulation is translated into organized experience. The process of perception routinely alters what humans see. When people view something with a pre-conceived concept about it, they tend to make those concepts persist and see them whether they exist or not they must be there. This problem stems from the fact that humans are not able to understand new information without the inherent bias of their previous knowledge. A person's knowledge creates his/her reality as much as the truth, because the human mind can only contemplate that to which it has been exposed. When objects or issues are viewed without understanding them, the mind will try to reach for something that it already recognizes in order to process what it is viewing to give interpretations to it. There is the idea that perceptual experience, is connected to thoughts, not only do thoughts arise based on what we perceive but perception also seem in many cases to provide us with justification for believing certain things to be in a certain way. It has also been noted that what one perceives is the result of the interplay between past experience including one's culture and the interpretation of the perceived. Perception can therefore justify us in holding various beliefs about the world.

The main function of perceptual experience is to provide us with the knowledge of the world around us. As opposed to creatures which lack the capacity for conscious reflection, human beings not only utilize perceptual information to navigate and survive but also gain theoretical understanding of the world they inhabit; of the many beliefs that man holds about the empirical world a large proportion are justified by appeal to experience. Hence, a desideration for any theory of perceptual experience is that it provides or at least is formulated so as to be compatible with an explanation of how perception can justify us in holding various beliefs about the world, events, phenomena and issues of the day [10]. Perception in humans describes the process whereby sensory stimulation is translated into organized experience. Perceptual processes are not public or observable except to the perceived himself whose percepts are given directly or in experience.

Methodology

Research Design

The study sought to investigate the stakeholders' perception of the CSSPS as a tool for selecting and placing students into second cycle institutions. This involved exploring the conditions that necessitated the designing and implementation of the CSSPS, its characteristics and the perceptions major stakeholders have of the system. Against this background, the study was structured basically within the framework of descriptive survey research

design. Researchers chose the descriptive survey design because the study aimed at finding out the factors that made the manual system of placement unsuitable and also to draw conclusion on whether the computerized system is a better option than the manual system based on the responses from the questionnaire and interview. According to Ary, Jacobs & Razavieh, descriptive research studies are designed to obtain information which concerns the current status of the phenomenon [11]. As such, descriptive research studies are directed towards determining the nature of a group or a situation as it exists at the time of study.

Population

A target population is the aggregate of cases about which a researcher generalizes. Thus, it is the unit for which information is required and actually studied. In the study, the target population was all parents, students and heads of Government Assisted second cycle institutions (public SHSs, Technical and Vocational) in the Greater Accra Region which have their names registered in the WAEC register as well as Ghana Education Service and Ministry of Education (GES/MOE) personnel, and opinion leaders.

Fraenkel & Wallen noted that, accessible population is the researcher's realistic choice [12]. In this study, the accessible population was the endowed second cycle institutions within the Accra Metropolis and the least endowed ones within the peripheries of Accra (rural schools in Greater Accra Region), with their institutional heads, students, parents with wards in the above schools and GES/MOE personnel at the district, regional and headquarters who directly and indirectly oversee the administration of the institutions.

The accessible population from which the sample was taken totaled nine hundred and nine-four (994). The composition of the accessible population is as follows:

Average student population	= 463
Average parent population	= 463
Heads of SHSs in the study	= 38
GES MOE personnel	= 30
Total	= 994

Sample and Sampling Procedure

A sample is a proportion of the population selected for observation and analysis. According to Sarantakos a sample enables the researcher to study a relatively small number of units in place of the target population and to obtain that which is representative of the whole target population [13]. The importance of a sample lies in the accuracy with which it mirrors the target population.

Many researchers, including; Saunders, Lewis & Thornhill, indicated that, using a sample enables a higher overall accuracy than does a population in certain situations [14]. Furthermore, Saunders et al. are of the view that, probability sampling is most commonly associated with survey-based research where the researcher is required to make inferences from a sample about the population under study for the purpose of answering research questions [14].

In this research work, probability sampling was adopted for sample selection. In probability samples the chance or probability of each case being selected from the population is known. This implies that, it is possible to answer research questions and achieve objectives which require the researcher to estimate statistically the main characteristics of the population from which the sample was drawn; hence probability sampling is often associated with descriptive survey research.

Elaborating on the sample size, Nwana stated that, there are certain non-definitive practices among social researchers, that one can adopt [15]. One of such practices was that if the population is a few hundreds, then a 40% or more sample will be appropriate; if many hundreds, as in the case of the present study then 20% will suffice; if a few thousands, a 10% sample will do; and if several thousands are involved then a 5% or less sample size will do. Similarly, Dale also suggested, a minimum of 20% sample size for a population of a few hundreds, while Asamoah-Gyimah & Doudo also stated that 10% - 30% sample size of a population of few hundred is sufficient for generalization purposes [16,17].

Fraenkel & Wallen provided some guidelines with regard to the minimum number of subjects in a sample [18]. They noted that, for descriptive studies a sample with a minimum of 100 is essential and for correlation research, a sample of at least 50 is deemed appropriate to establish the existence of relationships.

This study being a descriptive survey and using the 20% as a guide, the sample size applicable is 306 and the breakdown for the categories of the sub- population in the sample is as follows:

Table 2: Composition of Sample

Sub-population	Number of Respondents
Students	134
Parents	104
Heads of SHSs	38
MOE / GES	30
Total	306

After determining the sample size, members of the sample were selected through stratified random sampling which is a way of selecting a sample in such a way that identified sub-groups in the population are represented in the sample in the same proportion that they exist in the population. The stratified random sampling is a desirable sampling procedure where the universe is sub-divided into a number of sub-universes called strata and sampling is carried out independent of each stratum.

Research Instruments

Nwana indicated that educational data may be gathered or obtained through a variety of ways [19]. Hence, researchers used two tools to obtain the requisite data to address the research questions. These were questionnaire and structured interviews. Together they provided a rich source of detailed primary data and information. The questionnaire and interview schedules were selected as research instruments because they are known for their validity and reliability.

Pre-Testing Instruments

The research instruments were pre-tested for validity and reliability. The purpose for pre-testing was to sharpen the instruments thereby correcting possible weaknesses, inadequacies, omissions and ambiguities that may characterize the items. The pilot testing was conducted in two districts and one municipality in the Eastern region of Ghana. The pre-test group was selected from the Eastern Region because they had similar characteristics as the sample selected for the study in terms of age and status. The districts randomly selected for the pre-test were Yilo and Many Krobo districts and the municipality was the Koforidua Municipality. The senior high schools that were included in the initial study were Akro Senior Secondary/Technical, Odumasi, Akuse Methodist Senior Secondary/Technical, King David Senior High Secondary / Technical Institute and Ghana National Senior High.

The Eastern Region was selected for the pre-testing exercise because it is adjacent to the Greater Accra Region. Educational characteristics are similar in both regions. The towns and districts have urban and rural characteristics that are similar to those in the Greater Accra Region. The least endowed schools in the pilot study are Akuse Methodist Senior High School, Somanya Technical School, Odumase Secondary Technical School and Mampong Day Presby Senior High School. A few inherent weaknesses that were identified in the questionnaire were corrected. Suggestions and corrections especially by the Headmasters were incorporated in the items to reshape them to reflect realities in the schools. Similarly, some items were restructured based on the advice and recommendations from the research supervisors. The processes of reshaping, restructuring and test proof of the questionnaire to a large extent contributed to the validation of the research instruments.

The Cronbach co-efficient alpha was used as measure of internal consistency since it determines the reliability of the instruments for both the pilot study and the main study [20]. The Cronbach co-efficient alpha was used because most of the items in the questionnaire were multiple score items that had responses ranging from strongly agree, agree, strongly disagree, disagree etc. The co-efficient of alpha with respect to the pilot test was 0.792; for heads of institutions, 0.739 for students, 0.815 for GES/MOE personnel and 0.7185 for parents.

Data Presentation and Analysis

Osuala described data analysis as the ordering and breaking down of data into constituent parts and performing of statistical calculations with raw data to provide answers to the questions initiating the research [21]. Data analysis in this study started with editing of the responses of the questionnaire and interview schedules. The edited responses were then coded and scored. The scores of each respondent were summed up across the items to obtain their final raw score. Simple percentages and frequency tables were used to analyze the items. Both descriptive and inferential statistics were used. Descriptively, the major themes in the data were used to discuss the data and to make inferences. Percentages were used to discuss the

data quantitatively. The data was edited, grouped and fed into the computer and thus arranged in tables, frequencies and percentages for analysis and discussion. The chi-square (χ^2) was used to find whether there was any significant change in enrolment of the least endowed schools and also whether there is a significant change in the imbalance in the choice of endowed schools. Furthermore, documents from newspaper publication were mainly employed to support analysis of data in the study.

Table 3: Response from Stakeholders on Enrolment in Rural Schools

Stakeholder Response	Yes	%	No	%	Total
MOE/GES Personnel	28	93.3	02	6.7	30

Source: Data compiled from Stakeholders

Results from interviewing MOE/GES personnel on the effects of the CSSPS on enrolment of rural schools as represented in Table 3 indicates that, the stakeholders in the name of MOE/GES held the view that the CSSPS has contributed significantly to increasing the enrolment in the rural schools, that is, 93.3% of the respondents affirm the increment. However, 6.7% of the respondents do disagreed completely that the CSSPS has effectively contributed to the increase in enrolment in the rural schools. Additionally, information was gathered from SHS heads and parents on their view on the impact of the CSSPS on enrolment in rural schools. These categories of respondents were to complete questionnaire to express their opinion on the issue. The information gathered is presented in Table 4.

Table 4: Response from Stakeholders on Enrolment in Rural Schools as a Result of the Introduction of the CSSPS

Stakeholder	Response						Total
	Yes	%	No	%	UD	%	
Parents	63	60.6	39	37.5	02	2.1	104
SHS Heads	22	57.9	15	39.5	01	2.6	38
Total	85	59.9	54	38.02	03	2.1	142

Source: Compiled from study area.

Table 7: Why the CSSPS should be Continued

Opinion/Perception	Stakeholders							
	Parents	%	SHS Heads	%	Students	%	Total	%
Makes selection easy and early placement	10	9.6	13	34.3	18	13.4	41	14.8
No more payments of bribe to school heads	46	44.2	01	2.6	14	10.5	61	22.1
Reduce pressure on school heads by parents and pressure groups	15	14.5	04	10.5	12	8.9	31	11.2
Gives true picture of students' performance hence placement in correct schools	10	9.6	20	52.3	62	46.3	92	33.3
No more preferential treatment by school heads	23	22.1	-	-	28	20.9	51	18.4
Total							104	38

Tables 5 and 6 above examined the perceptions of the major stakeholders in the educational enterprise. The major stakeholders in the context of education and the CSSPS are the Ghana Education Service/ Ministry of Education personnel, Senior High School (SHS) Heads in the public SHS in the Greater Accra Region whose schools are listed in the WAEC register of schools. Perceptions of these stakeholders were examined with the reference to the

It could be inferred from Table 4 that majority of the stakeholders, that is, both the parents and SHS heads are of the view that the introduction of the CSSPS has positively impacted on the rural SHSs by increasing their enrolment. Approximately, 61% of the parents and 58% of the SHS heads have indicated that the introduction of the CSSPS has helped to increase the enrolment of the rural SHSs. However, it could be noted that a section of the parents and SHS heads were not certain, whether the new system has actually contributed significantly to the increase in enrolments in the rural schools. Their views were represented as uncertain, thus, 2.1% and 2.6% of the parents and SHS heads, respectively, were not convinced beyond doubt that the CSSPS has contributed to the increasing enrolments in rural SHSs in the Greater Accra Region.

In summary, it could be stated that most of the stakeholders, notably the MOE/GES personnel, SHS heads and the parents have indicated that the CSSPS has nominally contributed to increment in the enrolment of rural SHSs but in the minority, a few of the respondents do not totally agree on this view.

Table 5: Perception of Major Stakeholders on the CSSPS

Respondent or Stakeholder	Response						Total	
	A	%	UD	%	DA	%	Respondents	%
SHS Heads	-	-	02	5.3	38	94.7	38	100
Parents	17	16.4	04	3.8	83	79.8	104	100
Students	21	15.7	01	0.7	112	83.6	134	100
Total	38	13.8	07	2.5	231	83.7	276	100

Source: Compiled from Study area

Table 6: Response from MOE / GES Personnel on the Abolition of the CSSPS as a Selection and Placement Tool

Respondents	Response				Total
	%	No	%	Yes	
GES/MOE Personnel	27	90	03	10	30

Source: Compiled from study area

following statements of:

1. Whether the CSSPS should be stopped or continued
2. Challenges to the implementation of the CSSPS

These statements are encapsulated into research question two (RQ2) which states that:

What are the perceptions of the major stakeholders on the CSSPS? Respondents were requested to tick in the appropriate box their opinion about the need to abolish the CSSPS as a selection and placement tool due to numerous criticisms against it since 2005. The data collation and analysis revealed that majority of the stakeholders disagree with the suggestion that the CSSPS should be abolished as a selection and placement mechanism in placing qualified JHS candidates into their chosen SHSs and programmes. On a whole, approximately 84% of the stakeholders; namely parents, students and heads of SHSs who completed the questionnaire strongly disagreed on the abolition of the CSSPS as a placement tool. Specifically, approximately 95%, 80% and 84% of the heads, parents and students respectively want the CSSPS to be retained. However, on the other hand approximately 14% of the respondents want the CSSPS to be abolished as a selection and placement tool.

Similarly, 90% of the MOE/GES personnel in response to the interview question on abolishing of the CSSPS indicated that it should be maintained as shown in Table 28 while 10% indicated that it should be abolished. It is therefore worth noting that despite the level of misgivings about the CSSPS as captured in newspaper publications, majority of the stakeholders prefer that the CSSPS should be maintained. It can therefore be inferred from the results on the retention of the CSSPS that, the majority of stakeholders in the study to a large extent agree to the retention of the CSSPS as the main mechanism for selection and placement of students in SHSs.

Why CSSPS should be continued

On the agreement that the CSSPS should be maintained as the selection and placement tool for JHS graduates into SHSs, respondents were made to rank the views in the questionnaire. The data generated is represented in the Table 7 above.

A critical observation and analysis of the contents in Table 7 indicate that, perceptions of stakeholders vary significantly with regards to placements of qualified JHS graduates in the SHS system. The variation in the perception as observed and inferred from Table 7 above relates to the social status of the respondent and where the respondent is located within the equation of the stakeholders, that is, either as a student, an educator or a parent. The strongest accepted view or reason that underpinned the continued use of the CSSPS as the sole placement tool is that it gives the true picture of the students at the BECE, hence the selection and placement is done purely and exclusively on merit. This is in consonance with one of the cardinal reasons that informed the introduction of the CSSPS.

Approximately, 52%, the heads of SHSs and 46% of the students accepted this view. However, the parents were indifferent to this view as a strong and valid point to allow the CSSPS to be maintained as a sole selection and placement tool into the SHS system. This is inferred from the Table 7 in terms of the low rating of 9.6% by the parents. Furthermore, 34.3% of the heads of SHSs and 13.4% respectively see the facilitation and early placement view as the second important reason for the continued use of the

CSSPS as the placement tool. On the other hand, parents do not support this view as strong enough to merit the use of the CSSPS as a placement tool. This rejection of the view is justified by the low rating of 9.6% given to it.

Further interpretation of information from Table 7 reveals that the parents highly rated the viewpoints (2) and (5) in the above table which involve minimization and elimination of bribery and corruption and preferential treatment given by SHS heads to less qualified students and influential personalities in society respectively. Points two (2) and five (5) were rated 44% and 22.1% respectively by the parents. On the contrary, the SHS heads attach less importance to points two (2) and five (5) as depicted to the low percentage responds of 2.6% payments of bribe and 0% percent for preferential treatment for influential personalities and unqualified candidates. Juxtaposing the view of the parents on the one hand and the heads of SHS and students on the other, it is evident that the main and core reasons of the parents for the continuation of the CSSPS as valid selection and placement tool hinge on the system's reduction and elimination of vices or negative practices such as favouritism, bribery and corruption that were previously associated with admissions on the parts of the SHS heads. These points were endorsed by the relatively high rate response of 44.2% and 22% respectively.

On the other hand, the students and SHS heads endorsed the continued use of the CSSPS as the sole tool for selection and placement on the basis of the advantages inherent in the system (that is the CSSPS) on the basis of points one (1) and four (4) in Table 7. The views or points deal with the facilitation of selection and placement earlier than it used to be and selection and placement being based purely and exclusively on merits and therefore reflecting the true performance level of the graduates at the BECE.

The two apparent positions or outcomes have been summarized by Bonney by indicating that the CSSPS was introduced in 2005 to reduce misdemeanour behaviour in terms of allegations of corruption and favouritism that characterized the manual system [22]. This point mirrors the position of the parents. The operation of the CSSPS is also aimed at promoting efficiency, transparency, fairness, equity and speed in the placement process. This position also mirrors the points of the SHS heads and students.

Discussion of Findings

One of the major objectives and reasons for the introduction of the CSSPS was to make education more accessible, thus, expanding enrolment notably in the least endowed Senior High Schools which are under subscribed as compared to the very endowed ones. However, findings of the study indicated that there was no significant increase in the enrolment of the least endowed schools (LES). Nonetheless, the CSSPS impacted positively on the rural Senior High Schools; a sub-component of the least endowed schools by increasing their enrolment nominally.

One major factor that has been noted to have contributed to the increment is the deferred acceptance algorithm that is inherent in

the CSSPS. The low scores of the rural based JHS students and other least endowed students could not guarantee and secure them placement in their preferred and highly competitive endowed schools, hence by the element and principle of deferred acceptance algorithm inherent in the CSSPS, repeated processes of selection, proposal and matching of students eventually placed the low score students in rural schools where vacancies exist to swell up the population of rural Senior High Schools.

This finding resonates with Ajayi in his description of the workings mechanism of the CSSPS which is merit-based [3]. Ajayi indicated that, in the working mechanism of the deferred acceptance algorithm which is also inherent in the CSSPS, students are ranked according to their priority levels, that is, their test scores in the case of the CSSPS [3]. Under the deferred acceptance mechanism, there is no penalty in ranking schools in any arbitrary order within the set of first choice schools selected, therefore, if the students are not assigned to any of their preferred and chosen schools the system eventually assigns them to any school where vacancy exist in their district, community or where possible [3]. This situation must have also informed educational reform developers and initiators to recommend the establishment of community schools which are mostly rural in nature and also to reserve quota allocation for students within the community or catchment area. The community school system is also in consonance with the multi-track system in Taiwan where students were encouraged to attend schools in their community that are located near their homes where they are encouraged to stay in a less competitive environment. This was encouraged and suggested in favour of attending “star schools.”

The essence of every new system or innovation and its subsequent acceptance and diffusion is to improve upon the functioning of a previous or existing system to meet the demands of society. The introduction of the CSSPS sought to improve upon the processes and functioning of the manual system in terms of accelerating the role of selection and placement of students relative to the manual system. The manual system was very slow and characterized by delay in the selection and placement of students.

Results from the present study indicate that, the innovation and introduction of the CSSPS has significantly reduced the delay and the subjective nature in the selection and placement of qualified candidates into their respective schools especially the first batch of students. This achievement is consistent with the practice of the selection and placement system of Turkey which went through several eras of restructuring, refining and innovation with the purpose of achieving the objective of fairness in an economical manner while meeting the necessary deadlines. Similarly, Olave, Rajkovic & Bohanec noted that the DECMARK expert system of selection and placement worked perfectly and explicitly by reducing the dependence on subjective valuation [23]. It reduced the time of deliberations and allowed quick explanation without ambiguity in the results of the admission process, consistency in decision making was higher and as a consequence, the number of conflict situations between parents and school authorities in respect to selection and placement reduced. The CSSPS operates

on similar lines. It has reduced the period of selection and placements since all the operations are carried at a central point that is the CSSPS Secretariat.

It has greatly reduced the “subjectiveness” of selection and placement since all process are automated and computerized. The headmasters no longer scan through the cards to look for preferred candidates and scores. The CSSPS has also greatly reduced the contacts between parents and SHS heads prior, during and after the selection process as did the DECMARK expert system in Yugoslavia. The procedure of selection and placement is easily explained and defended. The Junior Graphic Editorial of Wednesday November 19th 2008 (pp. 12 – 25) reported that the GES has placed 98% of qualified students in the first batch of placement and this indicates rapid placement process.

Another demonstrative evidence of the minimization in the delay in placement is the use of WAEC’s scratch cards to check results and school of placement on the internet. This is a practical replacement of the former manual era where students will have to wait for the results to be released to the District Education Offices before being dispatched to the respective J.H.Ss. This process has also eliminated the obsolete practice of waiting for admission letters which take a long time to get to the recipient students. Some admission letters never reached their destination thus making the student concerned lose his/her place to other less qualified students.

The study also examined the perception of stakeholders on the CSSPS. Though the CSSPS nominally increased the enrolment of the rural SHSs and also significantly reduced the human subjective practices as well as reducing the delay in the selection and placement of qualified candidates, it was not without problems and criticism. These were expressed in the perception of the public about CSSPS. There was advocacy for its abolition based on the fact that:

1. It places students far away from their parents and also placed students in schools they did not choose hence some parents and wards refused to accept placements.
2. Furthermore, the CSSPS placement system was deemed to be manipulated by the officials of the Secretariat

The manipulation of the CSSPS perception was contrary to the reality and working mechanism of the CSSPS, hence, Bonney refuted this erroneous perception by stating that, the selection and placement as well as the matching of scores is done through automation by computers without human interference [24]. Hence, the electronic mode of selection and placement may not easily be manipulated. Another reason for the discontinuation of the CSSPS was the difficulty of rural students accessing placement in endowed schools hence being denied quality education.

Despite the misgivings about the CSSPS, the study found out that majority of stakeholders support the application of the CSSPS as the main tool for selection and placement of students into the SHS educational stream. The major points that underpin the use of the

CSSPS as the main mechanism for selection and placement is its merit-based attribute of selection and placement.

The CSSPS is a merit-based selection mechanism that selects and places students into their respective selected and preferred schools based on merit in terms of their scores at the B.E.C.E. The merit-based systems or models were applied in Guyana, [25]. He noted that the selection and placement procedure had a strong academic element which was evident in the allocation of students with the highest scores to the top elite schools. Similarly, the disbanded “Joint Examination” in Taiwan was a merit-based system. The merit-based placement is often a preferred mechanism for selection and placement when the intention is for maximizing educational attainment [5]. Duflo et al found that merit-based selection and placement system are beneficial to the extent that, the potential of attending a good quality and well-endowed school provides the students with the initiative for strong academic performance prior to the secondary school and the prospect of qualifications and promotion to tertiary education and this provides incentives for sustained academic performance through secondary education [5]. This point of view motivated the support for the continued use of the CSSPS as the main selection and placement tool. These academic factors and reasons justify the introduction of the CSSPS as a relevant selection and placement tool.

On the moral and social front, the study’s justification of the CSSPS was on the basis that, it has reduced misdemeanor behaviour such as bribery and corruption by the heads of the SHSs. Despite the merit attribute of the merit-based placement systems and models such as the Joint Examinations and CSSPS, they are associated with some problems. They are often determined through testing. However, test performance is often determined by factors other than ability. In particular, test scores may be affected by the socio-economic background of the student. [5.26]. Duflo, et al noted that merit-based policies disadvantage students from low socio-economic backgrounds and minority groups. Similarly, Neil & Medina also indicated that IQ tests are biased against students with certain backgrounds and experiences [26]. These factors could have contributed to the nominal increase in the enrolment of the rural SHS in the study area since rural areas are characterized by a low socio-economic status populace which invariably affects the academic performance of most rural school going children. Their low B.E.C.E. scores therefore resign them to the least endowed, rural and community schools.

It is therefore obvious that successive attempts at improving the mechanism of selection and placement into SHSs are to enhance efficiency and to increase access to secondary education. Human established institutions and designed models are often characterized by challenges in their formative and initial application stages; however, these are perfected through interventions and refinement as the challenges are identified and addressed.

Similarly, the CSSPS was also bedeviled with its own challenges together with those inherited from the manual system thus; the computerization of the selection and placement of B.E.C.E.

candidates into SHSs was due to the numerous challenges that bedeviled the manual system. The manual system was described as being laborious tedious and frustrating. This was coupled with several human errors such as incorrect writing and shading of index numbers and codes, as well as wrong selection of academic programmes. Some students selected programmes that were not offered in their selected schools and until the inception of the CSSPS there was no effective mechanism to address these problems which were mechanical in nature. However, the study findings have indicated that, the CSSPS has to a great extent minimized the human errors which are also termed systemic challenges. This was achieved through the adoption of effective and pragmatic strategies and mechanisms such as the introduction of Scannable Forms, Computer Registration (that is Batch Registration) and WAEC’s insistence that JHS heads ensure that the registration forms were completed correctly. The penalty for non-compliance with these requirements resulted in computer rejection of faulty and flaw laden completed cards.

The punitive measures obliged both the candidates and the heads of JHSs to strictly comply with the requirements of completing the Scannable Forms. (i.e. Registration Forms). By these mechanisms the human (i.e. systemic challenges) errors were drastically minimized and eventually eliminated.

The second challenge that plagues the effective functioning of the CSSPS was the human factor. The human factor challenge manifested in behavioural and attitudinal terms. It was demonstrated in the refusal of parents and their wards to accept placement in other schools except those of their preferred choice. This challenge is not mechanical or computer related; it is character manifestation. Parents prefer to defer placement than accepting placement to any school which was initially not one of their choices.

The study therefore revealed that the main challenge that militates against the CSSPS is the human factor. This challenge was so disturbing that, Quansah appealed through the Junior Graphic that parents should accept placement in schools their wards did not select [27]. Human nature is such that people gravitate towards good and already established things. This phenomenon is demonstrated in the choice of endowed SHSs by students. Places in endowed SHSs such as Achimota, Accra Girls and Presbyterian Boys SHSs are oversubscribed, while the least endowed schools receive less preference in terms of choice by students. The CSSPS sought to achieve a redistribution and balance in the placement of students in SHS.

However, findings from the study show that the CSSPS was not able to eliminate the preference and pressure on the endowed schools. Students still have a strong preference for endowed schools. Pressure and preference for endowed and prestigious schools is not limited to Ghanaian parents’ and wards; the Taiwan MOE stated in its introduction of the “multi-track system” to replace the “Joint Examination”. Here, there was no shortage of schools to attend rather, pressure on students from parents who want their children to

attend “first class star” schools under the notion that it equates diplomas from these institutions with money and success hence the cause of pressure of population on the first-class schools.

With the elimination of human errors in the selection and placement process by the CSSPS, it can also be used in combination with other placement systems such as the “Random Placement System” to achieve a fair distribution of students thus minimizing the preference and pressure on the endowed schools. The Random Placement System involves automated computerized allocation of lottery numbers to students in a randomly generated order and to assign students to schools. This has been a preferred approach in assigning choice of schools and programmes in U.S.A. schools [3]. The random placement system is used to achieve a balanced mix of characteristics such as intellectual and sportsmanship across schools. This will minimize the phenomenon of placing by merit high achievers in already well-endowed and first-class schools to the disadvantage of the least endowed schools [28-62]. This arrangement will to some extent minimize the human factor challenge to the smooth functioning of the CSSPS and the pressure and preference for endowed schools in the study area and Ghana.

Findings

1. Enrolment in the least endowed schools did not increase significantly with the inception of the CSSPS.
2. The CSSPS favoured the rural schools by increasing their enrolment nominally. This is indicative of the 63.37% respondents who held this view.
3. Limitation of preferential treatment from Heads of Senior High Schools to less qualified candidates helped to swell up enrolment in rural schools because brilliant rural students with low scores have to remain in the rural schools.
4. The merit-based deferred placement nature of the CSSPS eventually placed low –score students in the rural schools to nominally increase their enrolment.
5. The CSSPS has greatly minimized the phenomenon of delay in placement; 75%, 77.4% and 80% of parents, SHS Heads and GES/MOE personnel respectively agreed to this assertion.
6. The CSSPS was able to place about 80.6% of qualified students in their schools of choice, while the remaining qualified students were placed in schools where vacancies existed with reference to their aggregate scores, districts and regions of choice during the first run of placement. Parents, as one of the major stakeholders in the CSSPS initiative suggested that the CSSPS should be discontinued
7. for two main reasons notably; the difficulty in replacing missing cards and names and the difficulty of rural students accessing placement in endowed schools. Both reasons accounted for 73.5% of the reasons given for such an action.
8. Heads of SHS and GES/MOE personnel played down the issues of corruption and the manipulation of the CSSPS by government officials and gave rich reasons for discontinuing the operation of the CSSPS.

9. Stakeholders agreed that the CSSPS gives the true picture of student performance hence a better tool for selection and placement of students in SHSs and it also makes selection easy.
10. Parents supported the continuation of the CSSPS, based on the views that it has minimized corruption and eliminated preferential treatment and favouritism.
11. Pressure on the choice/selection of endowed schools did not minimize with the inception of the CSSPS.
12. Challenges to the CSSPS were categorized into two groups, namely systemic errors and human factors. Systemic errors relate to human fallibility while the human factor challenge relates to human behaviour, that is, refusal of parents and their wards to accept placement to less endowed schools and any other school except those originally selected for placement. The human factor was identified as the major challenge to the CSSPS.
13. The CSSPS has greatly minimized the human errors that characterized the manual system of selection and placement of qualified students into SHSs but the human factor continues to be the major challenge to the smooth running of the CSSPS. There was consensus that to a large extent, the CSSPS has brought a degree of fairness into the placement of qualified students as against the manual system.

Conclusions

On the strength of the finding as summarized, the following conclusions are drawn. The CSSPS has not impacted positively and significantly in increasing the enrolment of the least endowed schools. The situation exists because the infrastructural, teaching and input conditions of the least endowed schools have not been improved alongside the inception of the CSSPS to serve as an attracting factor for students to shift from clamouring for the endowed schools for the less popular ones.

Though the CSSPS has not to a large extent increased the enrolment of the least endowed schools, it has nominally increased the enrolment of the rural schools. Selection and placement on merit by the CSSPS has restricted average and brilliant rural students with low BECE scores to their local and community schools to marginally swell-up student population in the rural schools since most bribery and favouritism channels to endowed schools have been minimized.

The undue delay in selection and placement of qualified students that characterized the manual selection and placement system was partly minimized with the inception of the CSSPS, at least, with the placement of the first batch of qualified students. However, subsequent placements from mob up exercises are still plagued with the delay syndrome. On the whole, the CSSPS has to a large extent minimized the problems that characterized the manual system, hence; on this premise the CSSPS is a better alternative to the manual system as a tool for selection and placement of qualified students into SHS, Technical and Vocational institutions.

The inception of the CSSPS has not changed the pattern of preference and imbalance in the choice of endowed schools as first, second and third choices for placement. Stakeholders' holistic perception of the CSSPS was that it has eliminated misdemeanor behaviour of favouritism, bribery, corruption and frustration by SHS Heads. Majority of parents and students hold this view. On the part of the SHS Heads and GES/MOE personnel, the CSSPS has brought fairness in the selection and placement process which is purely based on merit.

The systemic and human errors that were associated with the manual system and the initial stages of the implementation of the CSSPS have been greatly minimized based on the repeated refining of the CSSPS over the study period of the system's operation. A daunting challenge that militates against the effective functioning of the CSSPS is the human factor in terms of behaviour. This was related to students and parents' persistent refusal to accept placement to least endowed schools even in cases where students personally selected the schools for placement.

Recommendations

1. It is recommended that the Ministry of Education (MOE) and Ghana Education Service (GES) should provide inputs in time to the least endowed schools and also upgrade the infrastructural facilities in the least endowed schools to make them attractive to students so as to reduce pressure on the endowed schools.
2. Incentive packages should be instituted by the Ministry of Education and the Ghana Education Service for teachers who teach in the least endowed schools especially the rural community Senior High Schools (SHSs) so as to work selflessly to produce results to entice students to such schools.
3. Students and parents should be conscientised by Junior High Schools (JHSs) Heads, Religious Leaders and personnel from the Computerized School Selection and Placement System (CSSPS) secretariat to accept placement into least endowed schools with the encouragement that buildings do not produce results. Performance depends on the efforts put in learning by students themselves.

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