FULL LENGTH ARTICLE

Effectiveness, Efficiency and Feasibility of the First University-based Ethiopian Secondary School Leaving Certificate Examination (ESSLCE)

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ABSTRACT

This study focuses on the exploration of the outcome of a new university-based ESSLCE management, with a specific emphasis on the approach's effectiveness, efficiency, and feasibility. The aim is to generate evidence for policy actions and facilitate communication among key stakeholders to improve future similar endeavors. A convergent mixed methods design was utilized, prioritizing the qualitative approach over the quantitative approach. Interviews and document analysis served as the chief data collection tools. Data were gathered from invigilators, supervisors, universities, Regional Education Bureau (REB), Woreda Education Office (WEO) officials, and experts. Interview guides and document analysis formats were employed for data collection. A total of 63 participants were interviewed, and documents from the Ministry of Education (MoE) and Ethiopian Assessment and Examination Agency (EAES) were consulted. Thematic analysis was used to analyze the qualitative data whereas quantitative data were analyzed using graphs, percentage and ratio analysis. The findings showed that the examination management was effective in reducing examination stealing and cheating, but lacked efficiency and feasibility. The findings of the study suggest that the MOE and EAES should continue implementing the new approach to address exam theft and cheating, while also making efforts to enhance efficiency and feasibility through increased utilization of technology and involvement of key stakeholders. The recommendations of this study serve as a valuable resource for policymakers and stakeholders in the education sector, providing insights into the strengths and weaknesses of the first university-based examination management.

Keywords: Effectiveness, Efficiency, Feasibility, University-based national examination management

INTRODUCTION

National examination serves as a gauge for assessing the level of learning success. It motivates all parties to put in enough efforts to improve learning outcomes for students in line with graduate competency standards (Firdaos, 2018). However, the cheating culture has challenged this effort, since it is a worldwide phenomenon (Crittenden, Hanna, & Peterson 2009; Murdock & Anderman, 2006) that has persisted throughout the years in various manifestations, particularly in contexts where assessments are involved (Comas-Forgas et al., 2021; Dejene, 2021). The specific forms and methods of cheating continually evolve, adapting to countermeasures implemented to prevent it (Keresztury & Cser, 2013). However, the underlying motivations for cheating have remained relatively consistent, without undergoing significant changes (Crittenden et al., 2009).

In the education sector, the empirical evidence in the area of academic cheating shows that cheating is not only pervasive and prevalent but it is also increasing in an alarming rate (Jensen et al., 2002; McCabe et al., 2010). Similarly, the quality of education in Ethiopia faced a significant decline due to flawed examination management and widespread academic cheating in the last thirty years. This is considered as a main problem for the sector's development, particularly affecting secondary school students. Academic dishonesty, orchestrated by various actors, has become a prevalent issue, leading to detrimental consequences. According to the empirical evidence, in the Ethiopian secondary schools, large numbers of students actively engage in academic cheating. This behavior is motivated by the belief that there is a low probability of getting caught and the absence of strict follow-up and actions (Wondifraw, 2021). Peer influence also plays a significant role in triggering cheating during examinations, as it normalizes and encourages such behaviors (Diego, 2017). Factors such as the lack of suitable examination facilities, social influences, inadequate supervision, and parental pressure have contributed to the proliferation of examination stealing and cheating. However, concurrently, there is a growing effort to curb the effects of academic cheating elsewhere in the world (Oluwatayo, 2011).

Researches show that examinations are pivotal in evaluating students' competences, monitoring teacher performance, and assessing teaching methods. To ensure valid and reliable outcomes, effective examination management is indispensable, especially in the face of widespread academic cheating (Irira, 2014). This management process involves planning, organizing, and administering exams, with the participation of teachers, administrators, students, and parents (Irira, 2014).

Effective examination management influences the quality of graduates, impacting their performance in various sectors (Comas-Forgas et al., 2021; Dejene, 2021). A well-structured examination management system is necessary for evaluating knowledge, skills, and attitudes, serving as the foundation for decision-making and stakeholder assessment (Aikins, 2019). It involves organizing the human and material resources essential for smooth exam administration (Aikins, 2019). Effective examination management has implications for positive student outcomes, leveraging educational technology, and enhancing student engagement (Aikins, 2019). The outcomes of examination management should accurately reflect the efforts of students, teachers, and the education sector (Woche, 2021). Proper management ensures that selection and placement decisions are based on the system's effectiveness and that results accurately portray examinees' abilities (Woche, 2021; Adow et al., 2015).

Though examinations are essential for reducing cheating and upholding educational quality (Comas-Forgas et al., 2021; Dejene, 2021), their management is challenging due to time constraints and the prevalence of diversified cheating techniques (Crittenden et al., 2009). Inadequate management can compromise ethical standards, resulting in violations of regulations and best practices (Barman et al., 2020).

The Ethiopian School Leaving Exam (ESLC), formerly known as the Grade 12 final examination, has been given to secondary school students for decades. In the past, students who completed the second phase of preparatory secondary education received the ESLC. However, this certificate was replaced by the Ethiopian Higher Education Entrance Examination (EHEEE) in 2003. The management of the exam has long been identified as one marred by cheating and exam stealing. The management of this crucial examination has been overwhelmed by the persistent challenges of cheating.

To this end, the MoE introduced a new exam management approach in 2023 by which the public universities were designated as examination centers. The Grade 12 national examination was conducted from July to August, with results typically taking about 45 days to be reviewed and published. The performance of students in the new examination management system has been a source of national embarrassment. This output has led to a profound realization of the issue among key stakeholders in the education system, including the MoE, EAES, Educational bureau officials, universities, school managers, and teachers. They now have a deeper understanding of the significant shortcomings in the Ethiopian education system (Berhanu et al., 2023).

The adoption of public universities as examination centers for the ESSLCE management represents a new approach aimed at mitigating the persistent issue of examination malpractices. However, due to

the novelty of this practice both within the country and beyond, there is a lack of empirical evidence that directly addresses its effectiveness, efficiency and feasibility. In order to make informed decisions regarding the sustainability of this practice or the exploration of alternative approaches, it is crucial to undertake a research on its outcome in terms of its effectiveness, efficiency and feasibility. Accordingly, this study tried to address whether the First University-based Ethiopian Secondary School Leaving Certificate Examination (ESSLCE) was effective, efficient and feasible.

This study holds significant implications for educational policymakers, the MoE, the EAES, and other stakeholders involved in the Ethiopian education system to work on National exam management. The findings of this study will provide evidence-based insights into the efficiency, effectiveness and feasibility improvements of using public universities as examination centers for the ESSLCE management. The findings may guide decision-making processes regarding the future of the new examination management system. Therefore, the broad goal of this study was to examine the First University-based ESSLCE's effectiveness, efficiency and feasibility with the aim of addressing the following specific objectives:

1. To scrutinize the effectiveness of the new ESSLCE management;
2. To examine the extent to which the new ESSLCE management is efficient; and
3. To check the feasibility of the new ESSLCE management.

Conceptual framework of the study

This study adopted the following conceptual framework (Figure 1) to address issues of feasibility, effectiveness and efficiency.
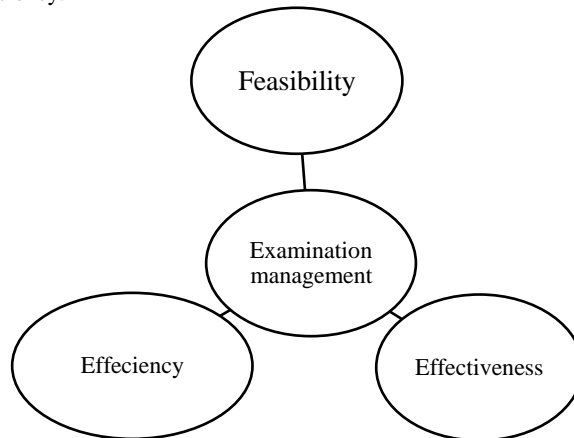
Figure 1: Conceptual framework of the study

In this study, the concept of **effectiveness** refers to the extent to which the first university-based ESSLCE management reduced examination stealing and cheating, as anticipated by the major actors in the education system. **Efficiency** is another dimension where exam management was evaluated. It refers to whether the process is economical (resource-wise) for all the concerned stakeholders [students, parents, Woreda Education Offices (WEOs), Regional Education Bureaus (REBs), universities, the Ministry of Education (MoE) and the Educational Assessment and Examinations Services (EAES)]. The last dimension where exam management seen was its feasibility. In this regard, **feasibility** refers to how far the new ESSLCE is practical. It subsumes pedagogical, technical, administrative, economic and social feasibilities.

METHODS AND MATERIALS

Study design

In this study a convergent mixed method design was employed, giving greater emphasis to the qualitative approaches compared to the quantitative one. The method is particularly helpful to simultaneously collect both quantitative and qualitative data, presents a valuable chance to interpret

data comprehensively, as it permits researchers to merge qualitative and quantitative findings. This approach goes beyond simply combining data and instead facilitates the generation of more intricate and situation-specific interpretations, which can provide insights into intricate research inquiries (Teddlie, & Tashakkori, 2015).

Target population
The target population for this study includes stakeholders such as officials from the MoE, EAES, regional and city administrations education bureaus, grade 12 students, current and previous invigilators and supervisors, officials selected from public universities across the country who took part in the process, and representatives from universities across the country were identified as data sources (excluding the Tigray Regional State[1]).

Samples and sampling techniques
Purposive and convenient sampling techniques were utilized in this study. Regional states and city administrations were purposively selected, while educational bureaus and universities in the sampled regions and city administrations were chosen conveniently. The particular sampling techniques were utilized with the intention of ensuring the participation of all the regional states and thereby to capture any variations and differences that exist among the regions and universities.

Data collection methods and instruments

Interview, document analysis and questionnaire were the main data collection tools of the study. Accordingly, 12 university officials, 10 university clinic health professionals, 10 regional education bureau officials and city administrations' educational bureaus, 10 regional assessment experts, 6 current invigilators, 3 current supervisors, 3 previous invigilators/supervisors, 3 students, 3 school directors and 2 EAES experts were interviewed through a semi-structured interview guides. Documents such as reports, press releases and media briefs by the MoE's and EAES's were critically reviewed.

Data analysis
The collected data were analyzed using thematic analysis for the qualitative data whereby the data were transcribed verbatim, coded, recoded, and then categorized to form themes and findings. The quantitative data were analyzed through ratio analysis and percentages and presented with graphs.

Ethical considerations
After obtaining ethical approval and a letter of support from the Vice President for Research and Community Services of Jimma University, as well as the Ethical Review Board of the College of Education and Behavioral Sciences at Jimma University (CEBS 36/2015 E.C), the project proposal proceeded. Subsequently, a team of trained data collectors and supervisors was dispatched to various institutions and schools to carry out interviews as planned. Throughout the study, ethical considerations were given utmost importance. The team ensured that participants provided their oral consent, and strict measures were implemented to maintain confidentiality, anonymity, and protect participants from any potential harm. Additionally, the purpose of the study was thoroughly explained to the participants, emphasizing that their involvement was entirely voluntary. Finally, the findings were reported with complete honesty and transparency.

RESULTS
Effectiveness of the new ESSLCE management
The Ministry of Education, through its Education Sector Development Programme VI (ESDP VI) 2020/21 – 2024/25 G.C, has outlined its educational philosophy emphasizing that education as a way of living and preparing young individuals for the future. It aims to cultivate holistic development, encompassing moral, cognitive, social, spiritual, physical, psychological, and vocational attributes. It is with this broader philosophical intent that the ESDP VI seeks to enhance the quality of education and training at all levels, ensuring high levels of learning outcomes comparable to international standards.

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[1]The examination was not administered in the region due to the ongoing civil war

The ESDP VI document further states that assessments, vocational skills, and exit examinations should be strengthened to achieve top performances in regional and international assessments within ten years.

It is with this determination that the MoE introduced the new examination management system (2021/2022) so as to provide equal opportunities for all examinees and minimize cheating and stealing in grade 12 national examinations, thereby establishing a foundation for the next generation. In this study, therefore, effectiveness of the new examination management system is evaluated against the aforementioned ideals by taking indicators that include attendance rates, the number or percentage of disqualified examinees due to disciplinary issues, and rates of cheating or stealing into account. Moreover, the views of the key actors in the examination management were also considered in determining the effectiveness of the new examination management system.

Examinees attendance rate

The rate of examinees who sat for the national examination during the new examination management was considered to measure the effectiveness of the system. Accordingly, the examinees attendance rate of the year 2015 E.C (2021/22) was compared against the data a year ahead (2014 E.C/2020/21). The data, hence, indicates that examinees attendance rate in 2014 E.C (2020/21) was 90% where as it was 96.99% in 2021/22 (Figure 2). This shows that the attendance rate of examinees exhibited increment during the new examination management. This implies that the attendance rate of examinees during the introduction of the new examination management was more effective in enrolling better number of examination takers even within some security problems in some parts of our country that were not accessible for administering the examination.
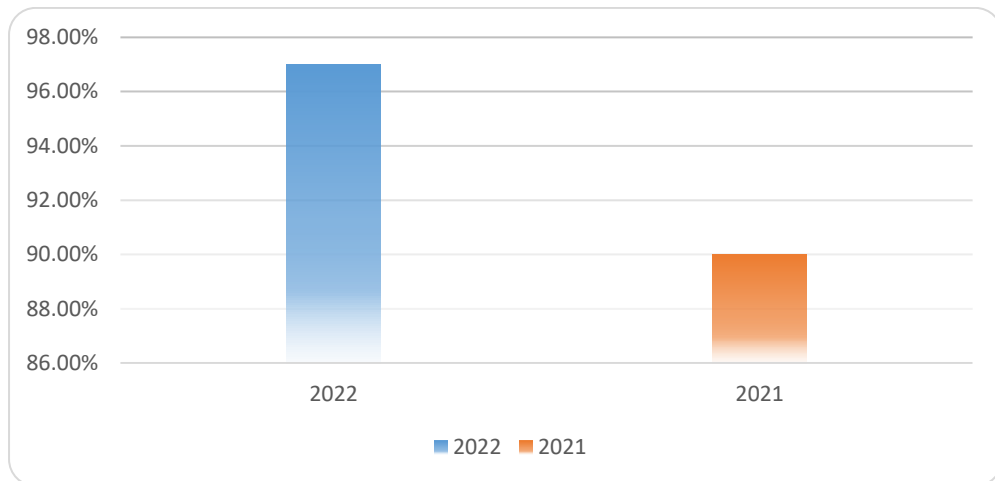
Figure 2: Percentage of students sat for 12th grade National Examination

Students disqualified due to discipline case

The effectiveness of the new examination management was evaluated against the prevalence of students' disciplinary problems. The problems related to disciplinary case during the actual examination time as the level of students' discipline is one of the output components of secondary school students besides their academic success (Kunwar, 2021). In this regard, in the current study, data from two consecutive years (2021 and 2022) pertaining to disqualified students' due to disciplinary problems were compared and analyzed. The data indicates that the magnitude of students who were disqualified due to disciplinary problems in 2021 was 0.02% while it was 1.75% in 2022. This shows that the examination management in 2022 was relatively tougher and more secure compared to the one during previous year (2021).

In addition to this, data from the interview reaffirms that the new examination management system was effective in dealing with examination malpractice (Examination Administration Expert (EAES 1). It was only 30 cases that were reported in the years before this time within three thousand (3,000) examination centers. On the other hand, at 45 universities and 113 campuses as examination centers, 17,000 cases were dealt with through the discipline code. The new system enabled to bring the examination administration to manageable centers by making the controlling and supervision works more effective and efficient. Hence, the new system proved more effective at curbing unethical student behavior and identifying malpractices.

Students disqualified due to cheating case
The other examination management effectiveness indicator was the rate of student disqualification as a result of cheating. Accordingly, the data collected for this study shows that the percentage of cheating was 1.03% indicating that around 10,000 students were disqualified due to cheating. This finding reveals that the new examination management was effective in dealing with cheating. The finding from the interviews with supervisors also supports this finding.

> *In this new system, the environment, invigilators, supervisors and security personnel were new to the students; this, coupled with cell phone prohibition and external bodies contact restriction, has significantly deterred cheating (Current supervisor, 3).*

Related to this, an interview with the Minster of Education on Ethiopian Broadcast Corporation on January 27, 2023 also strengthens this finding: "The education and assessment system in the past had many corrupted practices; the current examination system is the first step taken to correct this corrupted practice. Though it passed through different challenges, it was completed successfully".

Moreover, the new examination management system contributed well to minimize cheating as indicated on the Facebook page of MoE on January 30, 2023. It is stated as, "The examination result obtained was recorded properly as it is free from stealing and cheating".

Similarly, according to the report and the understanding so far stated in the MoE's Implementation Report of October 2022, the biggest previous examination theft took place during the distribution trip and in the examination vault centers. To overcome this threat, the new examination management system centers (universities) were beneficial to a great extent. Most of the distribution travel was done by airplanes and helicopters to the areas where there were security problems. Hence, the system was effective in minimizing examination stealing. Consequently, it can be concluded that the new system was more effective in minimizing unethical student behaviors and detecting instances of malpractices.
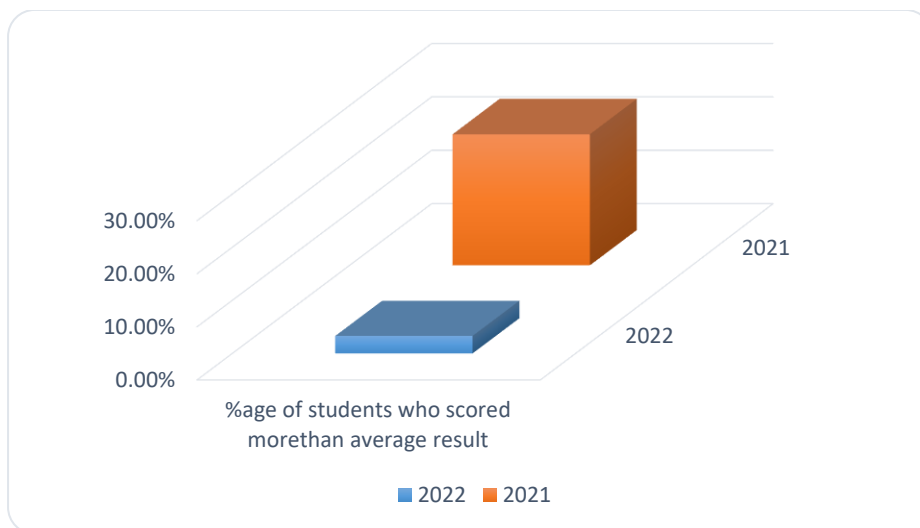
Students who scored more than average
Cheating distorts the accuracy of academic assessments, compromising the validity and reliability of results (Salehi & Gholampour, 2021). In contexts where cheating is prevalent, inflated exam results are likely to occur. It is with this assumption that the effectiveness of the new examination management system, in terms of minimizing cheating was measured through average and above average scores of the students. In this regard, data from two consecutive years (2021 and 2022) were compared and analyzed. The finding shows that, in 2021, it was 24.6% of the total students that scored above average, whereas, in 2022, it was only 3.3% of the examinees who scored above average. This reveals a significant decline in the students' results, i.e., from 24.6% to 3.3% (Figure 3). The inflated result observed in the preceding examination was falsely elevated and compromised, as highlighted by a participant who aptly characterized the prior examination administration as follows:

> "The exam management system was so tainted that even ill-prepared students were achieving high scores in their exams" (REBO 30).

 Additionally, the press release by MoE on October 22, 2022 aired on "Key Mesmer" ETV program also confirms the same. This is stated as, "The scores derived from the process will reveal results emanating from pure efforts, skills and competence of the students (free from fraud ways), and by way of doing that, the ministry expresses it has achieved its intended objective 100%".This implies that the

new examination management system's strict control resulted in the decrement of inflated and false student performance.

Figure 3: Percentage of students who scored more than average

Factors contributing to the effectiveness of the new ESSLCE management
The new examination management system was found out to be effective in terms of minimizing cheating and academic malpractices (Berhanu et al., 2023). Several factors contributed to the effectiveness of the system in this regard:

The change in examination setting
The new examination management system shifted the examination setting from secondary schools to public higher education institutions. Secondary schools were susceptible to interferences of various bodies ranging from parents, teachers and school principals to local officials. In this respect, one of the examination experts, who participated in this study, stated the issue as:

> *"When the national examination was conducted at secondary schools, there were impositions from Woreda officials at Woreda level on teachers just to facilitate conditions to get examination booklets for cheating purposes" (EAES 2).*
> The participants further stated that:

> *"The new way of examining has given relief to high schools and their teachers as well. The new examining system is also a solution to the quality of education. However, it seems to be very expensive, to the country, to manage the examination this way in the future" (EAES 2).*

This shows how much secondary schools were being pressurized during previous national examinations.

Furthermore, the shift in the setting to the universities helped to improve the security of the examination process in general. According to the report and understanding so far stated in the MoE's Implementation Report of October 2022, the biggest previous examination theft took place during the distribution trip and in the examination vault centers. To overcome this malpractice, the new examination management centers (universities) were greatly crucial.

In areas where security is a concern, the distribution of exams predominantly depended on airplanes and helicopters. The previous system, which involved numerous examination centers and relied on transportation by car, was susceptible to security vulnerabilities and tampering. However, the

introduction of the new system has been highly effective in eliminating instances of exam misconduct. This is due to the implementation of enhanced security measures and improved distribution methods.

Extra materials and apparatus prohibition
Besides the change in examination setting, the prohibition of electronic and audio-visual devises also contributed to minimizing examination stealing and cheating. Supporting this fact, the responses obtained from the participants of the study indicated that the prohibition of extra materials and apparatus enabled to eliminate examination stealing and cheating, compared to the previous practices (EAEA, MoE, universities, and region and city administration education bureaus).

Proper coordination of stakeholders and management of the resources
Another reason for the new examination management system's effectiveness was the proper synchronization of federal security institutions, the MoE, EAEA, regions, city administrations education bureaus, and universities' leaderships along with the deployment of human resources, despite there were some challenges in preplanning, communications, and resource allocation. In this regard, the report released by the MoE states:

> *Above all, the fact that the senior leaders of the universities managed the examination work with ownership, close monitoring and support made the examination process overcame the obstacles and increased its ability to withstand the effects of the challenges. In order for the examination process to be smooth, there was sufficient coordination for the examination, the officers of the supervision team attending each examination center 15 days before, and making necessary preparation with the institutions and the infrastructure helped to guide the deployment of the human resources and the overall logistics in a smooth manner* (MoE's Implementation, October 2022).

Hence, the system was to some extent effective in smoothening the deployment of the human resources and logistics, even by withstanding challenges confronted in the process.

Schedule wise, the time schedule of the examination was well thought out in advance, the coordination between the social and natural science examinees was created, and the way the morning and afternoon exams were scheduled took into account the current situation, which helped them to have an effective examination delivery process (MoE).

Spillover effect of the new examination management system's effectiveness
The new examination management system, apart from its direct effect on minimizing examination stealing and cheating, has some latent spillover effects.

Enhances students' motivation to learn
One of the spillover effects of the new examination management system was that it enhanced students' motivation to learn. This is true both for lower grade students and for those who join the remedial program. One of the university officials, who participated in the study, emphasized this as follows:

> *The students who are taking the remedial program are learning seriously. They are attending the program to pass the examination. They ask questions to understand more; to get additional points and materials and requesting us to bring reference books from high schools. Furthermore, student's eagerness to learn are motivated instructors to teach and support them more. Thus, we hope students who take remedial program will get better results (UO 10).*

Enhances multiculturalism and cultural exchange

The new examination management system involved the assignment of invigilators, chiefs and supervisors to universities which are different from their work places, birth places and regions. Thus, this created an opportunity to invigilators, chiefs and supervisors to become familiar with different cultures. In addition, most of the universities arranged events for invigilators, chiefs and supervisors assigned to their universities to visit historical sites, taste cultural foods, attend traditional events, etc. Such exposures played a pivotal role in enhancing the multicultural awareness of the participants and helped them to learn the actual realities in the localities other than their own. In this regard, one of the university officials, who participated in the study, expressed the experience as, "The mobility of staff to various settings in the country helped them to learn the actual realities in the localities other than their own. This has proven that the actual realities and the here-and-there rumors were contradictory" (UO 3).

Hence, in this perspective, the system was effective in minimizing fake rumors and increase trust among stakeholders. Beyond the examination, it enabled universities to let students observe the university environment to decide on their institution preferences. For instance, one of the public university officials believes that this examination management system created an opportunity for their university to be introduced well and preferred among universities of its generation:

> Based on the MoE's database, we are on the first rank among second generation universities. On the previous system, although students chose universities of their preference's, most of time, they were randomly allocated instead of being assigned according to their first choice. But, in this year, students were assigned based on their first preference, and this enabled us, as an opportunity, to assess ourselves, i.e., whether we are a preferred institution or not. Most preferred institutions are first generation, but from our generation universities, we are the first one (UO 5).

Reducing cheating and unrealistic school performances

The new examination management practice created the opportunities of deterring cheating practice by bringing a better examination environment for those students who try by themselves and reduce other stakeholders' unnecessary interferences. Another good thing is that the new examination management was effective in comparatively creating equal chance and environment for all examinees by making the exam setting the same to all the students.

Prior to the introduction of the new examination management system, there were fierce competitions among schools, woredas and even regional states based on the performance of their students in the national examinations? In order to appear best, there were tendencies of engaging in institutional malpractices and organized cheating. The new examination management has more likely created an environment by which all the schools are evaluated in a fair and equal manner relatively as compared to previous system and yet no differences were observed in terms of the results of students in the examination. This seems to be depicted from the result that was scored country-wide and absence of pronounced disparities among regions and schools. Press release 2 made by the MoE stated this phenomenon as;

> "With the exception of Addis Ababa, Harari, and Dire Dawa that exhibited better performance compared to other regions, the performances of the remaining regions showed minimal variation, with no statistically significant differences".

Therefore, this implies the new examination management system was relatively effective in creating equal chance for all.

Perceived efficiency

Efficiency evaluation in the educational field is a very difficult assignment. One of the reasons is that schools' primary resources (categories of their students) lie beyond their control, which necessitates a different approach from the one taken with other analysis related variables (Cordero-Ferrera et al., 2008). For this study, input component has been explored to identify strengths and limitations of the

new examination management system efficiency. Therefore, due to dearth of secondary data, we have presented perceived efficiency of the new examination management system.

Efficiency of the new ESSLCE management as compared to budget funds
Concerning the overall budget of the new examination management, it was reported by the EAES that it consumed a huge amount of money, nearly 2 billion ETB. The cost includes transportation costs, university-wide costs to provide basic services for examinees and other personnel engaged in the process. The total budget allocated to carry out the examination accounts for 3% of the education sector's total budget (ETB 2bln/66.8bln) (Cepheus Research & Analytics, 2022). Although the allocated budget was huge, there were complaints from public universities, regional educational bureaus and woredas that they spent more than what was allocated to them. In this regard, for instance, in one woreda, the budget that was allocated for transportation was around 410,000 ETB, but they actually were forced to spend more than 800,000, which is double of its plan. Furthermore, two different 1st and 2nd generation universities that had received 32million and 13 million ETB, respectively, for this work, spent more than Br 60 and 26 million ETB, respectively. These shows that the MoE did not allocate enough budget for the universities to provide the required cafeteria services, health services, invigilators' accommodations, extra-hour activities and transportation costs. These created some dissatisfaction from the examination participants' sides (UO 8,9). This might imply that the new system was more likely inefficient financially, and not adequate to finance the intended examination management.

Preparation and its implication for efficiency
Initially, universities provided information on their intake capacity in terms of examinees. However, the actual allocation differed, causing problems on their service delivery and efficiency. For instance, one public university was informed about 1000 students were coming for examination, and the preparation of services was made accordingly. However, lately, they were forced to take about 26,000 students while the actual accommodation capacity was for 11,000 students. This was explained as, *"*To manage such preparation and communication delay, we were forced to bring furniture and dormitory materials from far-away campuses, which incurred another administrative expenditure" (UO9).

Besides, at one university up to 800 administrative staff members were assigned to carry out the implementation of this mission, but they were not paid. Additionally, the university used more medical and employed large number of academic staff members to manage the examination management process (UO9). In one regional state, 397,000 students were registered, and 800million ETB was spent for transportation. This means, on average, 2,015.11 ETB transportation cost was incurred per student. Additionally, the limited intake capacity of the universities viz-a-viz the large number of examinees assigned to them was also a critical challenge (REBO 27).

Based on this, most university officials viewed that the new examination management system was not efficient cost-wise. However, on the contrary, the MoE, EAES, regional and city administration education bureaus officials believed that the previous approach, compared with the new examination management system, had required more vehicles, logistics, and human power, from the MoE to school levels, for 3000 examination centers. They argued that the new system utilized the few university centers and their campuses. Furthermore, they also justified that for the 3000 previous examination centers, more security forces were required. Hence, they concluded that the new examination management had better operational efficiency compared to the previous one, although it needs concrete numeric data. This means, the examination management system was efficient to minimize exam cheating and stealing as reported by essential stakeholders involved in the process.

Feasibility
Feasibility can generally be considered as the practicality of a proposed system. This study, hence, tried to approach the feasibility of the new examination management system in terms of the technics applied, the finance utilized, its pedagogical aspects and the socio-economic perspectives.

The overall feasibility of the new examination management system in relation to the status of the education sector
Despite its limited technical, pedagogical, financial and socio-economic feasibilities of the new examination management system it can be believed to be feasible in general given the corrupted education system (REBO 27;30). In this regard the benefits offset the cost of the new examination management system, for we cannot anticipate quality without cost.

Thus, it can be argued that the new examination management system is feasible and mandatory given the deteriorated education system in general and the flawed examination management in particular. In this regard, one of the participants of the study emphasized, "We didn't have any options. As long as the challenges I mentioned earlier were addressed by the new examination management, it should be continuing even with all of the constraints" (Current Supervisor 2). Other participants also emphasized that the problems observed in the new examination management system were minor compared to the problems from which the education sector was suffering from. For example, one participant expressed this as, "The advantage is, the new practice brings about quality examination management; I think the problems are minor" (REBO 23).

Hence, given the deep-rooted cheating and examination stealing culture that pervades in the education sector, it is appreciable to introduce a dynamic examination management system. To this end, the introduction of the new examination management system by the MoE is quite feasible, it has got a lot to be improved.

Technical feasibility
Exploration of technical feasibility involves assuring resource allocation and availability. It takes into account the analysis of the system's technological requirements needed for the smooth functionality of the system. In relation to the new examination management, the analysis of technical feasibility involves the review of the technical capacities of the MoE, REBs, woredas and HEIs against the major activities of the new examination management system(Berhanu et al., 2023). The following are what the university official had to say;

> *"Since our dormitories were few in number to hold the students, we used all possibilities to address the problems in different ways, even to let students share beds. We administered exam on the available areas using libraries, labs and various places"* (UO, 02).

> *"It has created challenges of resource shortage on our normal operation"* (UO 5).

> *"We did not have enough bed and chairs for the exam and so, there were just communication with suppliers to quickly prepare the materials to supply for the University. This and allocating the budget for the exam was the role of MoE and EAES"* (UO, 06).

> *"Regarding the preparations, ranging from preparing dormitories, exam rooms, study rooms, we have faced huge challenge of resources ... scarcity because the number of chairs we had were not sufficient"*(UO, 08).

In this regard, the new examination management's technical feasibility had some irregularities specific to university resources, basic services, transportation service provisions and examination rooms' availability.

University resources
The success of any program, particularly a newly installed program, largely depends on the commitment and willingness of the parties to take part in its implementation. To get the commitment and willingness of these parties, it is then imperative to involve them throughout the process. This is particularly important during the planning phase. In the process of the implementation of the new examination management system, universities complained that the plan was top-down in which the roles and views of the universities were not only ignored, but there were also strong oppositions from the university representatives concerning the process. Describing the situation, one of the vice

presidents involved in this study stated, "The university vice presidents were opposing the idea that it was going to be held at universities. There wasn't full consensus between the MoE and universities regarding the implementation of the program" (UO 9).

This was partly due to the approach the MoE adopted to introduce the system, which, one participant described as, "They [the MoE officials] had already decided on the issue of feasibility when they called us. They had called the vice presidents of universities and heads of education offices to Addis Ababa after finishing the proposal and even some placements" (UO 9). The system overlooked the participation of the universities which were critical entities to the effectiveness of the new examination management system. At the same time, the university leadership insisted that the MoE reconsider its decision due to several factors. These were related to the universities' daily activities, budget constraints, inadequate dormitories, and shortages of dining rooms and furniture (since large number of regular students were already in the system). In this connection, one of the university officials, who participated in this study, stated, "We were complaining about the meal and the resting places for the students. This was because we didn't have enough dormitories to host 41,000 students assigned to us for the examination, while we had our own regular students" (UO 9).

Moreover, the large number of students that universities are required to admit for the examination created challenges on their quality service provision for students, such as dormitory, cafeteria and clinic services. Describing the then situation, one of the university officials, participated in the study, stated, "There was a total mess. It looks like as if we were in battle ground rather than in the examination center. The clinic, if you had an experience in the battle ground area, looked like it existed in battle ground" (UO, 08). In this regard, the examination system was technically not feasible due to the required resource limitation as compared to institutions' hosting capacity.

Inadequate time for preparation and unclear working procedures and directions
Besides the aforementioned actual problems universities were raising in relation to hosting the examination, they were not with adequate time for preparation. Given the complex nature of the task, it was desirable for the universities to have adequate time for preparation. Unfortunately, the time given for preparation was very short. One of the university officials in this regard said, "In this work, thus, the time given to us was short; we had only a month or so. Therefore, within this time, people had to work without rest" (UO 9). In such instances, where people are expected to work in a very tight schedule, the directions and working procedures need to be clear enough from the onset. This was, however, one of the bottlenecks of the implementation process of the examination system.

University officials were not provided with clear directions and guidance in this regard. One of the university officials stated this as, "So, we got into it. There was nothing that was clarified to us. For example, were we going to pay for the people, whom we involved, for their services or not? People were asking. We can say that they were working 24 hours" (UO 9). In addition, the MoE was unable to send the final list of invigilators that the universities had to receive and host. Since universities did not find the complete list, facilitation for accommodations was very tedious. This made the situation worse, as an Amharic saying goes, "በደንባራ በቅሎ ቃጭል ተጨምሮ". This implies that, with absence of clear direction and resource challenge, it was difficult to be technically feasible for the intended examination system implementation.

Transportation service capability
In connection with transportation service provision, there was a challenge in transporting students from their schools to universities. Since a large number of students were on the move, providing the required number of vehicles to take them to universities was challenging. Besides, the transport owners were not willing to provide the transportation service at the prices offered. Consequently, regional and woreda officials forced the owners to provide the mentioned service. In this regard, officials gave the following explanation:

> The cost of the transport we were able to pay to the car owners were not attractive and as a result most of them were not interested to provide the transport service. Consequently we were trying to convince them to give us the service and we, in most instances, were forcing them too. We were both convincing and forcing. Because we

> *were afraid of being unsuccessful, we forced them to work; … Otherwise, they will be also out of the market after the completion of this task. Some of them were convinced but the others were not* (REBU 28).

Similarly, the issue of transportation affected REBOs and WEOs. The budget allocated by the MoE for the transportation of students from rural schools to the universities during the examination was inadequate that REBOs and WEOs were forced to shift budget from other sectors to cover the transport costs. There were some WEOs that did not yet complete the payment for transportation cost till even the date of data collection of this study, and consequently, some of the transport associations were taking these cases to courts (REBO, 27). In this regard, the examination system was technically not feasible due to the limitation in the transportation to bring students from their school to the university and vice versa, and due to scarcity of the budget allocated for the transport service.

Operational (pedagogical) feasibility

An examination process, as an integral part of teaching and learning, provide valid and reliable information regarding students' performance that could be used to make decisions pertaining to the students' future studies or carrier directions. The overall feasibility of an examination system should, therefore, be reviewed in line with this notion.

In this study, hence, the pedagogical feasibility of the new examination management system was explored in relation to its capacity of providing valid and reliable data on students' performance, thereby evaluating the extent to which the system enables to minimize academic cheating and examination stealing. From this perspective, the new examination management system was quite effective in minimizing academic cheating and examination stealing (Berhanu et al., 2023). On this point, one of the supervisors, who participated in this study, informed, "The new examination management was fine because it enabled to minimize the cheating practice and totally avoided unnecessary local stakeholders' interference pedagogically*"* (Current Supervisor 5)".

In addition to its capability to minimize cheating and examination stealing, the condition that the new examination management system created was believed to benefit high achieving students. Emphasizing this, one of the students, who participated in this study stated the following:

> *From the students' side, high achieving students could benefit a lot because these students are the ones who are distracted most during examinations which are characterized by lots of noises, and copying from other students and mobile phones. We have witnessed that students who were relatively good in classroom assessments scored less and poor students scored the highest marks in previous ESSLCE. So, with the new system, students could be evaluated as per their knowledge and skills* (Student 3)

In general, the new examination management system was pedagogically feasible in that it helped to minimize cheating and examination stealing and improved predictive validity and reliability of students' academic performances. Nonetheless, it does not mean that the system had no challenges that affected its pedagogical feasibility. In this sense, one of the REBO assessment experts explained, "The new examination management system has limitations on students' movement to new examination contexts other than the ones where they had been learning, in and moreover, the dormitories' noisy environment problems had negative impacts on students' resting and study" (Student 1).

It is obvious that such challenges affected the pedagogical feasibility of the new examination management system. However, the deep-rooted and the complex nature of academic cheating and examination stealing manifested in the Ethiopia education system has to be curved at any cost as indicated by one of the regional education bureau officials:

> *The new examination management system has a lot of feasibility problems. This is not the question. It has pressure. It has big impact. Let alone being moved from your accustomed place, even being at the accustomed place, the examination is "matric". We know what we were feeling when we were examined. It has pedagogical pressure. However, this is the last option. It is not advised pedagogically under normal situation* (REBO 5).

Financial feasibility

Financial feasibility in this study is seen from the perspective of the ability of the project's cost from Ministry to Finance to achieve the intended examination administration and manage the required cash flow to financially sustain the project over the long term and meet all obligations. The new system costs other sectors, i,e., the implementation of this examination management system forced education bureaus of woreda and universities to divert other program budget. Furthermore, it had several flaws in terms of budget which affected its financial feasibility. The MoE declared that the federal government would cover the transport cost of students who travel from places which are 50 km far from the universities. It was with this direction the WEOs were trying to cover the transport cost of students. However, the cost incurred for the transport was higher and was not affordable for the woredas. Hence, the woreda education offices were forced to shift budget from other sectors to cover the transport costs. In this regard, one of the Regional Education Assessment Expert(REAE) stated:

> *In terms of financial resource, we were out of budget. The transport budget initially allotted to take our students to the examination center was about 411,000 ETB. In the process, while we took them to the universities, we spent twice of the allotted budget, and we were forced to allocate additional budget by reshuffling from other sectors* (REAE 27).

The new examination management placed severe pressures in budget requirements to the extent that the function of other sectors in addition to the education sector could have been affected. Similarly, it placed huge pressure up on the universities' budget, indicating its weak financial feasibility. In this regard, many of the universities that were engaged in the grade 12 national examination program reported budget deficits because of the inadequacy of the budget allocated for them from the NAES. Some of the responses from the participants include, "There was a budget deficit of around 12.5 million Birr," (UO 8); "We faced a budget deficit of around 30 million birr" (UO 9); "The budget sent from the examination agency and the actual budget practically needed for accomplishing the examination program were not comparable"; and "There was a double budget requirement than what it was allocated" (UO 1).

Consequently, the national examination disturbed the normal functioning of the universities such as teaching, research, and community services for a prolonged time. One official described it as, "… has disrupted our academic calendar significantly. We were forced to reshuffle programs. We were forced to delay from beginning classes early. Well, we understood the task as a national assignment and so that was okay'' (UO 1). In this sense, the new examination management system was financially not feasible.

Socio-economic feasibility

In this study, the socio-economic feasibility of the new examination management system was seen to determine what the system's feasibility for the society looks like. It was typically used to assess whether the social and economic effects of the new examination management system are justified in relation to the well-being of societies. In this regard, countries' social and economic well-being will depend to an ever greater extent on the quality of their citizens' education: the emergence of the so-called "knowledge society", the transformation of information and the media, and increasing specialization on the part of organizations all call for high skill profiles and levels of knowledge (Cornali, 2012). Hence, from this perspective the benefits that we got as a society is high as compared to the costs we incurred and suffered. This fact is further strengthened by study participants' views. One of the student participants stated that

> *"The implementation of such new examination management system will bring the desired socio-economic changes particularly in minimizing corrupted mind set and increase confident and capable graduates for the country which ultimately solve the real problem of the societies (student 1).*

On the other side, another student who participated on this study stated that;
> *"The new exam management practices affected us in terms of psychologically missing parents as it is our first time to leave home. The dormitory life was too*

> *challenging in terms of disturbance from the roommate members while we try to revise and intend to sleep. In terms of health, some of our friends were sick due to toilet sanitation problems and stress emanated from their poor exam preparation. Economically as social science was first stream, the meal services that we got were poor and this led us to incur additional costs for other meal services found in the campus (Student 2).*

Similarly, an assessment expert (EAES 1) viewed, to some extent, the new approach created some socio-economic and psychological pressures. Separating students from families during the examination had its own impact on students because they left environments which were familiar to them. For this reason, they felt stressed and could not prepare themselves for the examination within the short time. The new examination approach can have some promises for the future of the society.

Furthermore, according to the objectives of ESDP-VI that the government planned to achieve within ten years, the new examination management can enable the country to produce globally-competent and creative graduates who will bring national prosperity and development (MOE, 2020).

The introduction of such a new approach involves many technical, pedagogical, and socio-economic costs. However, such costs are better in a corrupted education system like ours where cheating and examination stealing are prevalent and pervasive to not only in the education sector but also in the society at large. The level of corruption and the deep-rooted cheating mentality among students, teachers, principals and the community at large are not something to be reversed through the conventional way of doing things. The already installed examination management system was flawed and distorted by many standards, and hence, it was inevitable to have a dynamic system if we are able to save the education system of the nation.

DISCUSSION

Ethiopia has started to conduct its Grade 12 national examination in public universities since 2022. This, the first university-based Grade 12 national examination management was meant, among other things, to minimize academic cheating and exam stealing. In this study, it was found out that the first university-based Grade 12 national examination management was effective in terms of minimizing academic cheating and exam stealing. One of the distinguished moves made by the new examination management system was the shift in examination setting. The change in the exam setting played a central role in reducing cheating and exam stealing as such that programs are embedded in the environment with in which they are being implemented (McDavid et al., 2013). Due to the change in exam setting, teachers, principals, parents and local administrators were deterred from the examination administration process during the time of examination. This finding is in line with the evidences from previous research which showed that an ethical environment is effective for reducing cheating (Maeda, 2021).

Besides the change in the exam setting, fierce measures on exam malpractices and cheating attempts were taken during the first university-based grade 12 national examination management. Such measures had huge impacts in reducing cheating attempts among students during the national examination. The findings in this regard are consistent with earlier research findings (Teixeira & Rocha, 2006; Maeda, 2021). Previous studies in this respect found out that "Punishment was also a factor that worked both as a motivator towards and a deterrent against cheating behaviors" (Maeda, 2021, p. 346).

The effectiveness of the first university-based Grade 12 national examination management in minimizing academic cheating and exam stealing could also be attributed to the safety and the security of the examination process in general, which was maintained because of the limited number of universities or exam centers. This is further strengthened by Mafa & Gudhlanga, (2013) on the study conducted on examination management as a way of achieving quality assurance with a special focus on the setting, administering, marking right up to the publication of results. Their finding shown that the management of examinations enhances quality assurance, cited activities which contributed to quality assurance included setting of examination items for the item banks, tight security in the

transporting of examination items to and from the regions, residential marking, and active invigilation. Hence, the exam safety and security enhancement has great implication on minimizing exam cheating and stealing.

In terms of the actual costs incurred to implement the First University-based Grade 12 national examination management, the system could be labeled as costly and inefficient. However, it is difficult to establish a relationship between the cost of examination management and its short-term and long-term outputs (Murthi, 2023). According UNESCO (1998), measuring the efficiency of education systems is problematic due to difficulties in defining and measuring educational outputs and outcomes as well as quantifying the relationship between inputs and outputs. However, an education system is generally considered efficient if it produces the desired outputs or outcomes at a minimum cost. In this regard, the examination system reduced the exam cheating and exam stealing, which means effective in this aspect, but it is difficult to say efficient since institutions were forced to consume resources beyond the amount allocated to them.

The new examination management is an irregular yet better approach by many standards of feasibility by which many technical, pedagogical, financial and socio-economic issues were clearly compromised. That is, even if there were limitations in terms of technical, pedagogical, financial and socio-economic feasibilities of the new examination management system, this study found out that the system is feasible to the particular context of Ethiopian education system. The introduction of such an unfamiliar approach, which has many technical, pedagogical and financial costs, is better in a corrupted education system like ours where examination stealing and cheating are prevalent and pervasive to not only the education sector but also to the society at large. The level of corruption and the deep-rooted cheating mentality among students, teachers, principals and the community at large are not something to be reversed through the conventional way of doing things. The already installed examination management system was flawed and distorted by many standards, and hence, it was inevitable to have better system if we are to save the education system of the nation (Menocal et al., 2015).

CONCLUSIONS
Based on the findings of this study, the research team has concluded the following points:
- The new examination management system could be labeled as effective in the sense that it helped to minimize academic cheating and examination stealing. It was relatively effective in providing reliable and valid information regarding the actual performance of grade 12 students that clearly portrayed the depth of the grave in which the education system was buried as compared to the previous one.
- In conclusion, while the new examination management system represents a significant long-term investment by the government, the costs incurred were substantial and inefficient. The system placed a strain on universities, requiring them to accommodate a large number of students beyond their capacity, resulting in inadequate facilities such as dormitories, dining rooms, and furniture. Additionally, the financial burden on the budget of WEO, ZED, REBs, and universities was substantial, with insufficient allocation from the MoE and EAES to effectively carry out examination activities. This led to universities exceeding their allocated budgets and WEO and REBs diverting funds from other sectors. Consequently, the new system proved financially unfeasible, impacting the normal operations of WEO, ZED, REBs, and universities designated for the examination.
- The new examination management system suffered significant compromises in feasibility, in terms of its technical, pedagogy, finances, and socio-economic considerations. It imposed substantial pressures on universities and other educational units, while lacking sufficient consultation with the key stakeholders. The system's pedagogical feasibility was limited, as students had to adjust to unfamiliar examination centers without adequate psycho-social support. This resulted in heightened stress and anxiety for students, parents, and guardians.

RECOMMENDATIONS

Based on the finding of study, the following recommendations are suggested:

- Curbing the long-standing corruption within the education system, which has been evident in academic cheating and examination theft over the years, cannot be achieved through a single, isolated action. It requires consistent and ongoing efforts. The government must remain committed to sustaining the education quality assurance initiatives beyond end-product assessments. The MOE should be committed to consider the broader context of education, addressing the necessary inputs for the sector, and improving the teaching and learning processes. Moreover, the MoE in consultation with universities need to come up with technology supported examination management system so that the deep-rooted corruption in the education system be effectively addressed.

- Although the new examination management system is generally regarded as effective in mitigating academic cheating and examination theft, it is not without significant flaws that demand careful evaluation and improvement. The MoE and EAES should thoroughly assess the system's implementation and consider adopting a bottom-up approach to planning, taking into account the concerns of all critical stakeholders for future endeavors.

- To enhance the pedagogical, financial, and socio-cultural feasibility of the system, proactive measures must be taken by the MoE and EAES. This requires engaging in timely consultations with Universities and REBs, among others, to plan major system activities in advance, identifying challenges, and strategically and technically devising appropriate solutions. By adopting this approach, the MoE and EAES can address the shortcomings of the system and ensure its successful implementation in a manner that meets the needs and expectations of all the stakeholders involved.

- The MoE, in consultation with the key stakeholders, needs to develop a clear plan of action by which the duties and responsibilities of all the stakeholders are clearly identified. The plan should highlight all the important political, technical, financial and psycho-social issues. The MoE should better involve the universities and regional education bureaus right from the planning stage to its evaluation.

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REFERENCES

Adow, I. M., Alio, A. A., & Thinguri, R. (2015). An assessment of the management of KCSE examination and its influence on irregularities among students: A case of secondary schools in Mandera County, Kenya. *Journal of Education and Practice*, 6(28), 15–22.

Aikins, E. D. (2019). Effective Management of University Examinations. *International Journal of Research and Innovation in Social Science* (IJRISS), 3(11), 123–126.

Barman, S., Kundu, S., Saha, S., Das, S., & Sahana, S. (2020). Online examination management system. *International Journal of Emerging Technology and Advanced Engineering*, 10(5), 154–162. https://doi.org/10.21474/IJAR01/12370

Nigussie, B., Getachew , K., Mikre , F., Amsale , F., Belay , A., Workeneh, N., Jibat, N., Worku , A., Abafita , J., Ferede , T., & Tilahun , G. (2023). A Move towards Choosing a Workable National Examination Management Approach for Ethiopia. *The Ethiopian Journal of Social Sciences and Language Studies (EJSSLS)*, *10*(1), 3-12.

Cepheus Research & Analytics. (2022). Ethiopia ' s 2022-23 Budget. 1–18.

Comas-Forgas, R., Lancaster, T., Calvo-Sastre, A., & Sureda-Negre, J. (2021). Exam cheating and academic integrity breaches during the COVID-19 pandemic: An analysis of internet search activity in Spain. *Heliyon,* 7(10), e08233.

Cordero-Ferrera, J. M., Pedraja-Chaparro, F., & Salinas-Jimenez, J. (2008). Measuring efficiency in education: An analysis of different approaches for incorporating non-discretionary inputs. *Applied Economics*, 40(10), 1323–1339. https://doi.org/10.1080/00036840600771346

Crittenden, V. L., Hanna, R. C., & Peterson, R. A. (2009). The cheating culture: A global societal phenomenon. *Business Horizons,* 52(4), 337–346. https://doi.org/https://doi.org/10.1016/j.bushor.2009.02.004

Dejene, W. (2021). Academic cheating in Ethiopian secondary schools: Prevalence, perceived severity, and justifications. *Cogent Education*, 8(1). https://doi.org/10.1080/2331186X.2020.1866803

Diego, L., (2017) Friends with Benefits: Causes and Effects of Learners' Cheating Practices During Examination. IAFOR Journal of Education, 5(2)

Firdaos, R., and Ahmed, A. (2018). The Implementation of National Examination as the Direction of National Education Policy. *Angewandte Chemie International Edition*, 6(11), 951–952.

Jensen, L. A., Arnett, J. J., Feldman, S. S., & Cauffman, E. (2002). It's wrong, but everybody does it: Academic dishonesty among high school and college students. *Contemporary Educational Psychology*, 27(2), 209–228. https://doi.org/10.1006/ceps.2001.1088

Keresztury, B., & Cser, L. (2013). New cheating methods in the electronic teaching era. *Procedia-Social and Behavioral Sciences*, 93, 1516–1520.

Kunwar, S., (2021). Academic Performance : A Comparative Study between Public and Private Secondary Schools in Nepal. A thesis submitted in the partial fulfillment of the requirement for he degree of Master ' s in International Education and Development, Oslo Metropolitan.

Maeda, M. (2021). Exam cheating among Cambodian students: when, how, and why it happens. *Compare*, 51(3), 337–355. https://doi.org/10.1080/03057925.2019.1613344

Mafa, O., & Gudhlanga, E. S. (2013). Examination management as a way of achieving quality assurance in odl institutions: The case of Zimbabwe Open University. *Turkish Online Journal of Distance Education*, 14(1), 326–337.

McCabe, D. L., Klebe, L. T., & Butterfield, K. D. (2010). Cheating in Academic Institutions : A Decade of Research. *Ethics & Behavior,* 37–41. https://doi.org/10.1207/S153270 19EB1103

McDavid, J. C., Huse, I., & Hawthorn, L. R. L. (2013). Key concepts and issues in program evaluation and performance measurement. Program Evaluation and Performance Measurement. An Introduction to Practice. Los Angeles: SAGE Publications, Inc, 3–10.

Menocal, A. R., Taxell, N., Johnson, J. S., Schmaljohann, M., Montero, A. G., Simone, F. de, Tobias, J., & Kendra, D. (2015). Why corruption matters: understanding causes, effects and how to address them. *Evidence Paper on Corruption, Department for International Development*.

MOE (2020). Education-Sector-Development-Plan-Ethiopia (ESDP 6). In 2020/21-2024/25, FMoE, Addis Ababa, Ethiopia.

Murdock, T. B., & Anderman, E. M. (2006). Motivational perspectives on student cheating: Toward an integrated model of academic dishonesty. *Educational Psychologist,* 41(3), 129–145. https://doi.org/10.1207/s15326985ep4103_1

Murthi, M. (2023). Quality education requires greater and more efficient financing. https://blogs.worldbank.org/education/quality-education-requires-greater-and-more-efficient-financing

Oluwatayo, J. (2011). Emotional Intelligence as Determinant of Potential for Academic Cheating Among Senior Secondary School Students in Ondo State. *Developing Country Studies,* 1(1), 1–9.

Woche, D.A.(2021). Determinants of examination malpractices among students in public secondary schools in Garissa County, Kenya. MA Thesis, Kenyatta University, Kenya

Salehi, M., and Gholampour, S. (2021). Cheating on exams: Investigating Reasons, Attitudes, and the Role of Demographic Variables. *SAGE Open*, 11(2). https://doi.org/10.1177/21582440 211004156

Teddlie, C., & Tashakkori, A. (2015). *Overview of Contemporary Issues in Mixed Methods Research. SAGE* Handbook of Mixed Methods in Social & Behavioral Research, 1–42. https://doi.org/10.4135/9781506335193.n1

Teixeira, A. A. C., & Rocha, M. F. (2006). Academic Cheating in Austria, Portugal, Romania and Spain: *A Comparative Analysis. Research in Comparative and International Education*, 1(3), 198–209. https://doi.org/10.2304/rcie.2006.1.3.198

UNESCO. (1998). Wasted opportunities when schools fail repetiton and dropouts in primary Schools. France: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000113958

Wondifraw, D. (2021). Academic cheating in Ethiopian secondary schools: Prevalence, perceived severity, and justifications. *Cogent Education*, 8 (1):1-16