EDUCATION REVIEW OFFICE: AN AGENCY FOR ASSESSMENT AND AUDIT

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Abstract

A global trend of conducting assessment, audit, research and evaluation like activities to enhancing accountability of all sectors of education, more specifically of school education sector is in place. In general, an autonomous organization is designed to execute this kind of activities. In the context of Nepal, Education Review Office (ERO) was established under the Ministry of Education, Science and Technology (MOEST), to be developed as an agency for assessment and audit. It is mandated basically to conducting national assessment of student achievement (NASA) of school level students and performance audit (PA) of education entities and schools. This office started conducting large scale assessments namely NASA, and PA of concerned authorities and schools since its inception in 2010.This article has tried its best to inform the audience about ERO activities highlighting findings of NASA and PA, most specificllay focusing on rights and duties of ERO as an agency for assessment and audit through the review and analysis of the ERO reports and related documents. It picturizes the NASA and PA efforts as well as all the concerned activities of ERO by analyzing most specically NASA, PA reports data using descriptive and analytical procedures. Furthermore, it also highlights the historical background of ERO, finds out problems and challenges it has been facing and gives possible solutions to be carried out along with related policy arrangements for the betterment of assessment and audit practices as well as school education system of Nepal.

Keywords: assessment, performance audit, quality, equity, accountability

Introduction

Following the global trend of assessing learning achievement of students and auditing education entities, Nepal also has initiated these kinds of activities. But its history is not found quite long. The aim of this article is to basically inform the readers the activities of ERO since its inception to till date taking the base of related policy and program documents, reports and publications of NASA and PA practices. The article has analyzed the ERO related documents and previous literatures to

informing the audience with the status and challenges of ERO performace and provide a way forward as well.

The practice of large-scale assessment of student learning achievement started in the year 1997 in Nepal. After this, 10 test studies had taken place for assessing the learning achievement of grade 3, 4, 5, 6 and 8 students by 2008. During that period, learning achievement assesments were conducted for the purpose of studying the effectiveness of periodic education projects/programs such as Basic and Primary Education Program (BPEP), Primary Education Development Project (PEDP) and Education for All (EFA). They were large-scale assessments, but it was difficult to call them national assessments as they had small size samples. So, they could not indicate exactly the achievement level of students of the whole country. In other words, in terms of sample selection and the use of research methods, reliable and periodic learning achievement tests were not conducted during that period. Anyway, they paved the foundations for large-scale national assessments (ERO, 2023).

From the above background, it is found that in the past governement of Nepal introduced various programs and projects in education sector, most specifically in the sector of school education. Among them, School Sector Reform Plan (SSRP) is the one which conceptualized the need of an agency to conduct performance audit (PA) and the learning achievement assessment fuction of school level education. It created the foundation for establishing ERO as a semi-autonomous agency to conducting aforementioned activities in 2010 during the period of SSRP (2009/10-2015/16) with the objectives and strategies to institutionalize the structure, quality, responsibility and accountability of school education. The ERO was established, under the MOEST, basically to assess learning achievement according to the target set in the plan. The main aim of it is to ensure the accountablility of the school education sector and to conduct external audit of schools and educational institutions at various levels based on set standards and norms (Sapkota, 2022) at the national level taking the bases of international standards.

After the establishment of ERO, according to its responsibility, large-scale national assessment namely NASA has been continuously conducted. In 2011, for the first time, the ERO conducted NASA of grade 8 students in the subject, viz. Mathematics, Nepali and Social Studies. Since then, it has also been conducting the NASA in every three year's cycle for one grade trying to align the assessment with the international standards and making the report public in a periodic basic. As per the NASA cycle, activities related to test items (item development, pre-test and analysis) are completed in the first year. And in the second year, the NASA final test is administered and the tasks upto data analysis are completed. Finally, in the third year, the activities like report writing, dissemination of the assessment results and

providing policy feedback are done. Since the establishment of ERO, NASA studies of different grades have been completed during the SSRP and School Sector Development Plan (SSDP) period. In both the plans, NASA is taken as an important instrument to measuring the quality of school education and holding schools as well as educational institutions accountable for achieving educational goals set by the country (ERO, 2023).

So far as the latest NASA is concerned, it was conducted in 2022 of grade 5 and in 2023 of grade 10, the reports of which are yet to be published. In recent years, English subject has also been included in NASA studies (ERO, 2024). In addition to the above-mentioned activities, the ERO has also been conducting research on contemporary educational issues including Early Learning and Development Standards (ELDS) based assessment of ECED children, National Assessment for Reading and Numeracy (NARN) of grade three students, PA and Customer Satisfaction Survey (CSS) of the education service delivered from the education entities of local governments, Head Teacher Leadership Performance Audit (HTLPA) of the headteachers of community secondary schools as well (Bhusal, 2023).

Policy/Programs

For the operation of the ERO, various policy provisions were initiated since its establishmnet. During its inception, it was operated by the guidelines developed by the MOEST. Major turn in its policy provisions was felt after the 8th amendment of Education Act, 1971 that took place in 2016. Based on this, the MOEST approved the guideline in 2017 that has provided the legal basis for ERO. Some provisions related to ERO can be found in some of the areas of the constitution of Nepal, Local Government Operation Act, 2017, National Education Policy, 2019 and SESP (2022/23-2031/32) as well. Major policies related to the ERO are discussed below.

Education Act, 1971(8th Amendment)

The major provisions of Education Act, 1971(8th Amendment) regarding the ERO are the provision of Chief Education Auditor to be appointed by the government of Nepal in the recommendation of the committee that consists of a member of the National Planning Commission and the secretary of the MOEST under the chairmanship of the Chairman of the Public Service Commission.It further tells that the committee shall recommend names for appointment to the post of Chief Education Auditor from among the persons who have worked at least in the gazetted first class position of Nepal education service (GoN, 2017).

Education Review Office Operation Guidelines, 2017

The fuctions, duties and powers of the ERO as per the ERO Operation Guidelines,2017 are to support the MOEST and related agencies in formulating

educational policies and programs aimed at improving quality and equity through regular assessments of student learning achievement. Furthermore, it is supposed to conduct PA of educational institutions and schools for providing evidence-based feedback to improve effectiveness of service delivery and educational standards. The ERO facilitates self-assessment among schools to foster accountability and improve educational services. Additionally, it evaluates and audits educational projects and programs, conducts research to address current educational challenges, and collaborates with national and international organizations to optimize learning assessments and studies. These fuctions of ERO have oriented it as an agency for assessment and audit of school education of Nepal (ERO, 2017).

School Education Sector Plan (2022/23- 2031/32)

In regard to ERO, the current school education sector plan (SESP), includes several provisions. It informs about the weak (stagnant) results of student learning achievement in the assessments conducted by the ERO. The plan aims to enhance the quality and relevance of school education, ensuring school preparation, basic learning, and quality achievement for every child. It seeks to improve the objectivity, regularity, reliability, and standardization of student learning assessment and audit. It discusses that regular assessment of student learning achievement and school performance audits will be conducted and used to enhance student achievement and school management. It also highlights that efforts will be made to minimize gaps in student enrollment, class participation, and learning achievement across various demographics. The plan further focuses on establishing a system responsible for children's learning, improving basic literacy and numeracy skills, and implementing the ReAL Plan to recover learning losses caused due to COVID-19 pandemic. It further discusses that the schools will be made more accountable, with periodic performance audits and assessments identifying opportunities for improvement. It says that all these activities the ERO will continue to assess learning achievements, audit of school performance, assess program impacts, and conduct research to support policy-making and system improvement. Strengthening the NASA and PA systems of school and utilizing the results for educational improvement are also the priority of the plan to making ERO as an agency for assessment and audit (SESP, 2022/23-2031/32).

Indication of Policy/Programs

The related policy documents indicate that the basic responsibility of the ERO as an agency for assessment and audit is to provide evidence-based feedback and research-based recommendations to the stakeholders for formulating educational policies and programs by conducting studies on some contemporary educational issues.

With various policies in place, the ERO has focused on several important tasks of assessment and audit since its establishment. These include regularly assessing how well students are performing nationwide through NASA and auditing the performance of schools and other educational institutions through PA system. Providing evidence-based recommendations through study reports, the ERO supports policy-making and implementation authorities, aiming to increase public accountability by publishing assessment and audit findings in a regular basis (Bhusal, 2023).

Working Status of ERO

Since its inception, the ERO has been performing the following activities within the scope of the policy and programmatic arrangements:

National Assessment of Student Achievement (NASA)

In principle, a national assessment is designed to shed light on the achievement level of students in a particular grade/age/level. It further provides feedback to policy level authorities through an estimate of the achievement level of students in the education system. Moreover, it provides quantitative, descriptive, and qualitative information on student achievement, which is considered as an output of the learning facilitation process and of quality of an education system. The national assessment thus is taken as an important instrument for providing basic information to policymakers, politicians and the wider educational community. More specifically, large-scale assessments like NASA studies are done for the purpose of both reflection and prediction. The main reflective purpose of NASA is to develop a database to analyze both strengths and weaknesses of educational policies and practices that affect students' learning achievement (Bhusal, 2023) of the country.

The main identity of the ERO is the NASA it conducts. In view of the global trend of monitoring the overall education system by assessing the learning achievement of the students, the ERO has, from its inception, been assessing the learning achievement of the students of grades 3, 5, 8 and 10 to see the extent to which the learning competencies specified by the curriculum have been achieved. The assessment has been done taking the students of all over the country in a sample basis. The background questionnaires regarding personal, socio-economic and other various details of students are also provided for infoming the factors affecting learning achievement. Similarly, the background questionnaires to subject teachers and the head teachers are also administered during the NASA processes (ERO, 2023).

In regard to the NASA, the ERO develops framework as per the concerned curriculum, prepares test items based on the framework analyzing their difficulty level, differentiation ability, and credibility. The necessary sets of test items are developed as booklets for conducting the assessment. After the NASA, the booklets

are marked, data are entered, analyzed and the final report is produced (Bhusal, 2023).

Objectives of NASA

Basically, the purpose of large-scale national assessment i.e. NASA is to provide feedback to policymakers, most specifically to the MOEST to improve the quality of school education. This assessment does not compare the proficiencies of student to student and school to school. In other words, it does not report individual student's performance. Rather, it provides the differences in the achievement scores in relation to various influencing factors such as socio-economic status, home language and geographical region, student's attitude towards different aspects of school and so on. More specifically, NASA has the following objectives:

- To identify the current level of student's achievement in a particular subject of specific grade;
- To identify variations in student achievement on different aspects such as gender, province, type of school, ethnicity, home language and socio-economic status;
- To explore factors that influence student learning achievement;
- To identify trends in student learning and produce baseline data for future comparisons;
- To strengthen the capacity of the education system in conducting national assessment; and
- To provide the MOEST with recommendations for policy making to improve quality and equity, particularly in school education (Bhusal, 2023).

Expectations from NASA

Major expectations of NASA are:

- Maintain the value of investment in the education sector (Value for money),
- Facilitate for accountability in the school education sector, and
- Create moral pressure for learing facilitation process in the classroom ((Sapkota, 2022).

Characteristics of Achievement Tests

Before discussing the characteristics of achievement tests, we need to differentiate exams and achievement tests. The characteristics of assessing students' learning achievement are different from those of exams. The exams especially provide information to students and teachers about the level of learning and also provide a basis for positive improvements in teaching and learning, as well as help in making decisions about student promotion and verifying learning. The student achievement tests, on the other hand, periodically provide information on how much the students of a particular grade have achieved or failed to achieve the competencies

set by the curriculum, i.e. how the level of learning is. It is also expected that such tests will increase the accountability of the educational system as well as help ensure the return of investment (Value for money) used by concerned country in its education sector (DFID, 2011 as cited in Sapkota, 2022). The negative aspect of this is that since the achievement tests do not pinpoint the learning of any specific student, the participating students do not have much interest in such tests (Sapkota, 2022).

Empirical Basis Taken for NASA Implementation

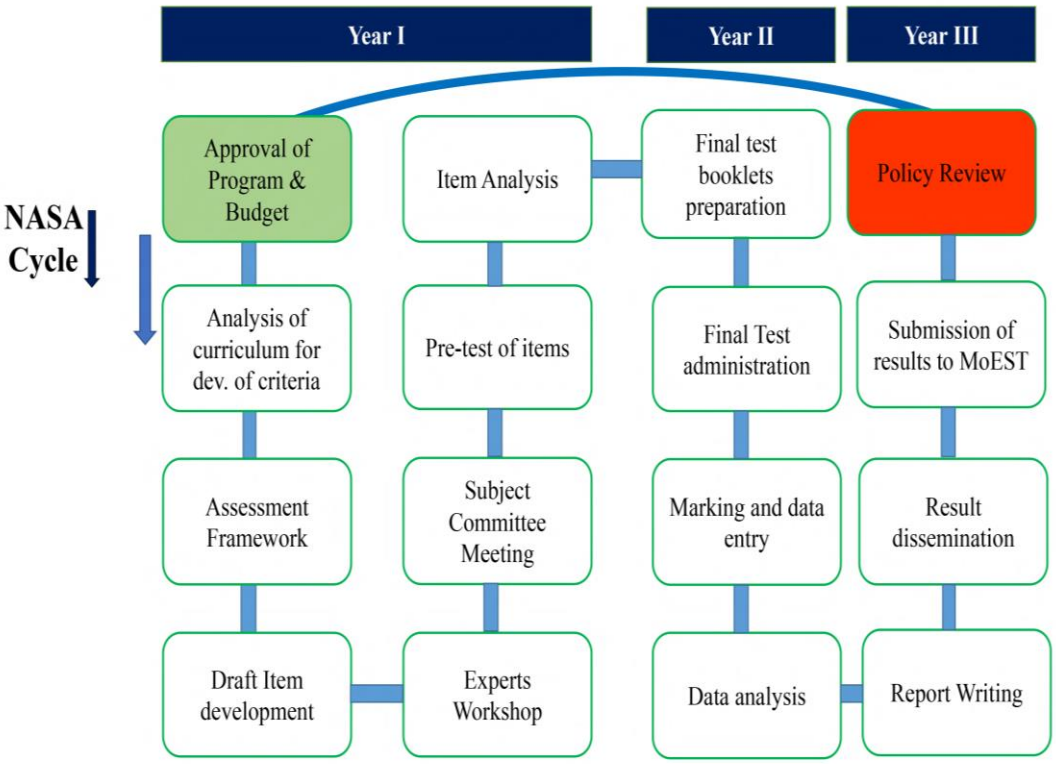
ERO has tried to take the basis of some of the interenational assessments to developing assessment system required to enhance the quality of NASA. In the year 2000, the countries participating in the World Conference on Education for All (EFA) held in Dakar, the capital of Senegal, seem to have started national assessment of student achievement in accordance with the guidelines of the conference.Uganda by National Assessment of Progress in Education (NAPE), Sri Lanka by National Education Research and Evaluation Center (NEREC), India by National Council of Educational Research and Training (NCERT), Australia by Australian Curriculum Assessment and Reporting Authority (ACARA) have been conducting their national assessements in regard to student learning achievement.Similarly,USA's state of Virginia has been conducting achievement tests from organizations such as the National Assessment of Educational Progress (NAEP). Looking at the situation of America, it seems that the national policy called *NO CHILD LEFT BEHIND* (NCLB) has been implemented based on the achievement test results. (EDSC, 2011 as cited in Sapkota, 2022).

In addition to the above-mentioned achievement tests, Program for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS), Progress in International Reading Literacy Study (PIRLS) seem to be important in student achievement tests at international level. It is found that Nepal has been conducting NASA, taking into account the basis and experience of such tests in which Asian countries like Japan and Korea are participating (Sapkota,2022).

NASA Cycle Used by ERO

To conducting NASA, the ERO has been applying the following NASA Cycle for a grade:

Figure 1



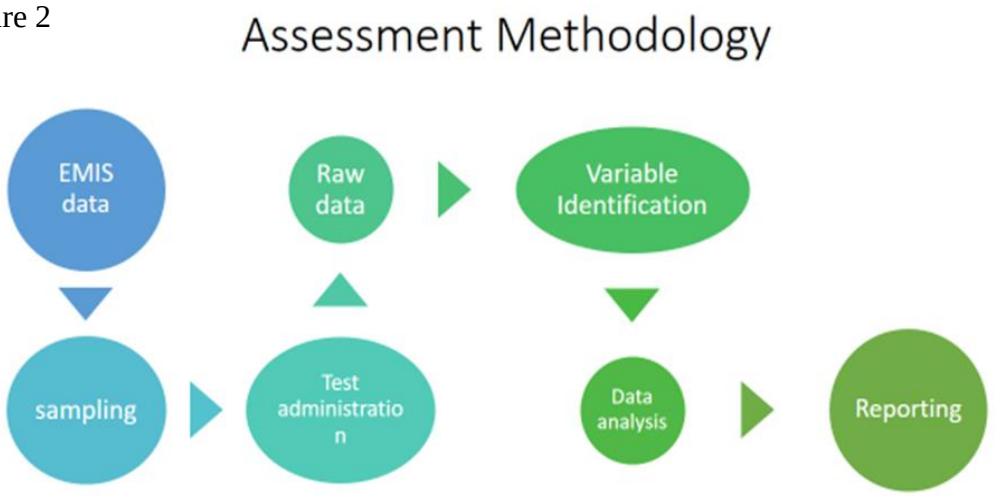
(ERO, 2024)

The above figure shows that in the first year of NASA cycle, the activities like assessment framework development, curriculum analysis, draft test items development, item analysis, pre-test of items, expert workshop, and subject committee meeting for test item finalization are conducted. Similarly, in the second year of the cycle, the activities like final test booklets preparation, final test administration, marking the booklets and entering the data as well as analysis of data take place. In the same way, in the third year of the cycle, final report is prepared, results are dissiminated, and the final report with recommendations is submitted to the MOEST for policy review purposes.

Methodology

The main methological provision for NASA used by the ERO is as follows in brief:

Figure 2



(ERO, 2024)

The figure above briefly resembles the assessment methodology of NASA process. It highlights that in the beginning the ERO brings EMIS data for sample gerneration. Then the activities like test administration, raw data generation, variable identification, data analysis and reporting kinds of activities take place during the process of NASA management.

Sampling

The sample design for NASA is multistage sampling by the selection of schools from each explicit stratum (province). It is supposed that sufficient samples taken from the provinces will ensure the generalizability of the results. Similarly, districts are selected randomly from each geographical location to incorporate Mountain, Hill and Terai regions. Then, the schools (clusters) are selected within the district using a PPS (Probability Proportional to Size) method. Looking at the sample size of the NASA conducted by the office so far, it seems that it is around 45000 to 48000 which is taken as a suitable size to justify large-scale assessments (Bhusal, 2023).

Tools

To conducting NASA, subject-wise tools as booklets are developed with students' background questionnaires. In addition to this, questionnaires for head teachers and concerned subject teachers are also developed (Bhusal, 2023).

Test Administration and Supervision

To administer standardized national assessment/NASA, selected test administrators are trained to conduct it. During the test administration, subject teachers are not allowed to be in the test administration hall. They are assigned only to provide responses on the Teacher's Background Information Questionnaire. Head teacher is supposed to orient the students, support staffs and invigilators to ensure smooth test administration. The head teachers also respond to the background information questionnaire provided to them (Bhusal, 2023).

Analysis Method

The data analysis methodology of NASA consists of two parts. The first part is item analysis, and the second is data analysis and interpretation. In the first part, MS Excel, SPSS, R and different packages (TAM, psych, mirt, plyr, miceadds, CTT, janitor, Wright Map) of R (Statistical computation software) are used to code, recode and clean the database. During the data cleaning, duplicate cases, outliers and unidentified cases are cleaned. All the background variables are recorded to make them readable for R software. Dummy variables are also prepared for conditioning the run in R (Bhusal, 2023).

Reporting

In regard to NARN grade 3 and NASA grade 5, the results are reported into four different levels as below basic, basic, proficient, and advanced. Similarly, the NASA results of grade 8 and 10 are reported in six different levels as below basic, basic, proficient 1, proficient 2, proficient 3 and advanced (Bhusal, 2023).

Summary Table of Previous NASA/NARN

The table 1 below shows the brief history of NASA/NARN conducted by the ERO.

Table1

History of NASA and NARN

Assessment	Class	Subject
NASA 2011	8	Nepali, Social Studies, Mathematics
NASA 2012	3 & 5	Grade 3: Nepali and Mathematics; Grade 5: Nepali, Mathematics and English
NASA 2013	8	Nepali, Mathematics and Science
NASA 2015	3 & 5	Grade 3: Nepali and Mathematics; Grade 5: Nepali, Mathematics and English

NASA 2017	8	Nepali, Mathematics and Science
NASA 2018	5	Nepali and Mathematics
NASA 2019	10	Nepali, Mathematics, Science and English
NASA 2020	8	Nepali, Mathematics, Science and English
NARN 2020	3	Nepali and Mathematics
NASA 2022	5	Nepali, Mathematics, Science and English
NASA 2023	10	Nepali, Mathematics, Science and English

(ERO, 2024)

The above table talks about the brief history of NASA/NARN process in Nepal conducted by ERO with its year of conduction, the grade and the subjects assessed. It begins from the year 2011 with a NASA of grade 8 students in the subjects like Nepali, Social Studies, and Mathematics.The latest NASA as per the table was of grade 10 administered in 2023 in four core subjects viz Nepali, Mathematics, Science, and English.

Key Recommendations of NASA 2020

Similar to previous assessment reports, the report of NASA grade 8 conducted in 2020, mentions homework, learning time, parent's education and occupation, socio-economic status, NER, distance to school etc. as the main factors affecting learning.

The report basically recommends as follows:

- Policy reformation, allocation of the required budget, activity-based curricula, emphasis on pedagogical delivery, and resource management are some strategies the government should implement instantly to remove the gaps between the intended and achieved curriculum.
- More specifically, a campaign of No child is left below the minimum level of learning is highly recommended.
- Justified distribution of resources is a necessity to address the wide gap between high-performing and low-performing provinces. A minimum standard of infrastructure, learning opportunities, resources, incentives and retention of good teachers and identification of learning difficulties along with remedial teachings are supportive activities to enhance learning and increase students' achievement.
- The gap should be filled by upgrading community schools through strategic interventions in school education.
- Teachers need at least a basic-level language learning package for their

students or the language of the community surrounding the school. Teachers have to be able to communicate in the community language, and they have to teach translating, changing codes, using trans-language strategies and empowering those children who use languages other than Nepali at home.

- Affirmative action such as scholarships and additional incentives to girls may reduce gender disparity in achievement. Regular interactions with female role models may also help. Apart from these, teachers should create a suitable learning environment for girls by being sensitive in terms of their needs, interest, voices and providing equal opportunity for classroom participation.
- Encouraging children to enroll on time is a strategy to increase the students' achievement level. Moreover, teachers should be trained in formative assessments and remedial education in earlier grades so that students do not fall behind in their studies and repeat their studies in the same grades.
- The achievement scores of students from Janajati and Dalit communities are below the national average as compared to students from Brahmin and Chhetry communities. The differences may have been caused by various factors such as the medium of instruction, language background, curriculum content, teachers or cultural background. To effectively reduce these gaps, serious consideration needs to be given to the following measures: incorporating an inclusive curriculum, implementing remedial teaching, incorporating local ideologies into the curriculum, fostering inclusiveness in the teaching profession, and fostering a change in the learning culture for Dalit students, particularly Madhesi Dalit-students.
- School administration should maintain a strict code of conduct for teachers to take classes regularly making it as one of the criteria for their performance evaluation.
- Students deserve access to social media for information and communication devices that could facilitate their learning and keep them updated with current information which ultimately enhances their learning.
- Medium of instruction is a fundamental process for communication and comprehension of the content as well as the pedagogical process in schools. The language that students feel easiest with must be used as the medium of instruction.

(ERO, 2022)

Result Summary of Latest NASA of Diffenent Grades

A scenario of the state of results is almost clear from the table below comparing NASA 2017 and 2020 results:

Table: 2

Result Summary of NASA Grade 8 (2017 & 2020)

Subjects	NASA 2017	NASA 2020	Remarks
Mathematics	48	32	
Science	44	38	
Nepali	69	59	
English	-	52	No assessment in 2017

(ERO, 2020)

The above table shows that there is the decreasing trend in learning achievement level of students of grade 8 from 2017 to 2020. It indicates that the percentage of students achieving minimum level of learning is less in 2020 than in 2017 in all the assessed subjects namely Mathematics, Science, and Nepali whereas the assessment of English had not taken place in 2017 because of which the comparision of English subject became impossible.

Table 3

Result Summary of NASA Grade 5 (2019 & 2022)

Subjects	NASA 2019	NASA 2022(The preliminary results)	Remarks
Mathematics	500	484.6	
Science	-	Comparing with 500	No assessment in 2019
Nepali	500	498.99	
English	-	Comparing with 500	No assessment in 2019

(ERO, 2024)

The above table also shows that there is the decresing trend in learning achievement level of students of grade 5 from 2019 to 2022. It indicates that, as seen taking mean score of 500, student's learning level is less in 2022 than in 2019 in both the assessed subjects viz Mathematics and Nepali whereas the assessment of Science and English had not taken place in 2019 because of which the comparision of those subjects became impossible.

Taking into consideration of the above discussion, the various NASA reports, and above tables, we can reach to the following conclusion:

- The learning condition of the students is poor.
- 65-70 percent of students do not have minimum learning.
- Minimum learning achievement and quality improvement in students is necessary.
- There is a gap in learning achievement between community and institutional schools.

- Children from poor families are falling further behind in learning.
- If the teacher is not motivated and does not teach, there will be no improvement. It is necessary to motivate by both positive and negative measures.
- Poor learning in the lower classes has affected the upper classes. Reforms must start from the ground level.
- The curriculum is good. To implement according to its intent is essential. But there is an inadequacy of capacity from the center to the school level.
- There is a need for research-based improvements in textbook writing, curriculum development and teaching methods.
- There should be an immediate improvement initiative from the management of the school to the overall governance.
- First Campaign: No child should be left below the minimum learning level is to be initiated.

Major Findings of the NASA Studies to Date

From the NASA studies conducted and reported up until today, the following findings can be drawn:

1. The overall achievement of students is poor.
2. According to the school type, the difference in achievement between students is very high.
3. The overall achievement is weak due to the weak reading skills of the students.
4. Students are weaker in answering items under "Higher-order thinking" compared to answering items under "Lower-order thinking".
5. Social groups (especially Dalit/Madhesi) also have affected to inequality in student achievement.
6. Geographical location of school has also affected to inequality in student achievement.
7. There is the direct relationship between the achievement and various aspects of investment. Timely availability of textbooks has also affected in learning.
8. The activities like giving homework, assessing it and providing feedback have been consistently effective in increasing learning achievement.
9. The situations like bullying or the unwanted behavior of others have a negative effect on achievement. Similarly, there is a positive co-relationship with achievement in terms of psychological and interpersonal harmony, such as being proud of one's school and teachers, and students respecting teachers and the school family.
10. The effect of family background on student achievement is found to be very strong (ERO, 2022).

Perfomance Audit (PA)

The ERO undertakes performance audit (PA) of schools and educational institutions as its one of the major activities. In the initial years of its establishment, it conducted PA of agencies under the MOEST such as Regional Education Directorate (RED), District Education Office (DEO), and Educational Training Center (ETC). Nowadays, it has started to conduct the PA of province level education entities like Education Development Directorate (EDD), Edcuation Training Centre (ETC), etc. The ERO has been performing the task of PA of community secondary schools more systemically (ERO, 2023).

Concept of Performance Audit (PA)

An independent audit conducted by internal and external individuals or groups regarding the effectiveness, efficiency, and transparency of the work or service performed by a school or educational institution or any agency is understood as a performance audit. In such audit, the work done by the school or the related organization is looked at, as well as the discussion, interaction is held with the relevant stakeholders and observation of the evidence, etc. is done. In such audit, (a) the principle of economy, (b) the principle of efficiency, and (c) the principle of effectiveness is taken into consideration (Pokharel, 2022).

Performance Audit (PA) in Nepal

Looking at the context of performance audit in the educational sector in Nepal, it seems that this work has mainly started with the establishment of the ERO. For performance audit, scientific instruments have been developed by the office and audit is conducted through experts. Based on the instrument with certain indicators, the experts visit the respective schools, observe, discuss and interact and examine the basic evidences and records in the schools. The basic purpose of this audit is to make all the services provided by the related institution or school efficient, effective and accountable. So this audit is done by looking at indicators based on different sub-sectors of the field such as Input, Process and Output. There are 89 indicators in the tool for community secondary schools developed by the ERO, while there are 95 indicators in the tool for institutional schools. After auditing the schools based on the specified indicators, the results with the ranking of each school are made public. Four bases have been taken to classify community secondary schools on the basis of their PA. According to those bases, the school that gets less than 40%points is considered poor, the school that gets 40% to below 70% points is fair, and the school that gets 70% to below 90% points is good and the school that gets 90 % and above points is considered as excellent. In the same way, five bases have been fixed for the classification of institutional schools. Based on that, the school is classified as poor in case of points less than 40%, as fair in 40% to below 60%, as good in 60% to below

80%, as very good in 80% to below 90% and as excellent in 90 % and above. The ERO has completed the PA of 5940 community secondary schools of 72 districts and the report with the ranking of schools of 62 districts has already been made public, while the report of 10 districts, the PA of which has been completed, is yet to be published. Looking at the status of community secondary schools in the 62 districts, of which the report has been published, most of the schools (about 82 percent) are in fair (40 % to below 70%) level, while 15 percent are in good level. In the same way, schools in poor level are around two percent, while only a few (just seven) schools are in the excellent level (Pokharel, 2022).

Purpose of PA

The basic purpose of performance audit is to test the status of service delivery and utilization of resources available in public institutions or schools. While considering the specific purpose of such audit, it is to identify the positive aspects and improvement possibilities in terms of input, process and output in the relevant agency or school and provide suggestions based on the evidence. To make it more clear, the purpose of PA is to test the effectiveness of the working system of an agency or school or to test that effectiveness on various indicators of input, process and output areas based on evidence from expert auditors (Pokharel, 2022).

Performance Audit (PA) Results

The school performance audit system, which has been in operation since the year 2011, has been systematically developed till date. Special priority has been given to aspects such as audit tools based on comprehensive indicators, testing procedures, etc. The performance of the school is basically divided into four sections namely input, process and output and students served. Under those four sections, a total of 89 indicators have been developed and a total of 269 points have been distributed in the case of community secondary schools. Accordingly, input (25%), process (30%) and output (40%) occupy 95% of the weight, while the remaining five percent is allocated to the students served (Pokharel, 2022). The details of tests completed since the establishment of the ERO till date are presented in the table below:

Table 4

Details of PA of community secondary schools

S N	Fiscal Year	No of districts	No of schools	Remarks
1	016/17	8	413	
2	017/18	24+2=26	1967	24 out of 75 districts, but 26 out of 77 districts.
3	018/19	13	995	
4	019/20	9	899	
5	020/21	6	592	
6	021/22	2	229	

7	022/23	4	395	
8	023/24	4	450	
Total		70+2 =72	5940	

(ERO, 2024)

The table shows that the ERO has completed the PA of 5940 community secondary schools from the fiscal year 2016/17 to 2023/24. It specifically states that the PA of 413 and 1967 schools was conducted in the fiscal years 2017/18 and 2018/19 respectively. Similarly, the PA of 995 and 899 schools had taken place in the fiscal years 2019/20 and 2020/21. It was done of 592 and 229 schools in the fiscal years 2020/21 and 2021/22. And finally, it was taken place of 395 and 450 schools in the fiscal years 2022/23 and 2023/24.

Summary of Performance Audit (PA) Results

The overall summary of PA results of community secondary schools in 62 districts whose results have been published so far is as follows:

- The performance level of the school is normal.
- The status of few schools is poor. Out of the audited schools of 62 districts, only 7 were found to have results 90% and above.
- The number of good schools is also only about 15 percent.
- There are many schools with poor results even though the investment is high.
- Even in the case of low investment, the achievement is found good if the process is good.
- The overall performance level of the school which has a large number of students is seen to be good.

Findings of PA

The published reports of PA resemble the findings as below.

1. Even within the same municipality, a large disparity can be seen at the level of performance among schools.
2. There is disparity in investment among schools. However, even the schools that have received high scores in investment do not have a relatively high level of achievement.
3. Aspects such as the number of teachers, the professional competency of teachers and the management of physical facilities are seen to be more decisive and responsible in increasing or decreasing the performance of the schools.

(ERO, 2022)

Early Learning and Developmental Standards (ELDS) Based Assessment

The ERO has been conducting an ELDS based assessment of pre-school children based on the ELDS of Early Childhood Education and Development (ECED) developed by Center for Education and Human Resource Development (CEHRD) to see the level of learning and development of those children. Similarly, the performance audit (PA) of the ECED centres has also been conducted during the process of this assessment.

While conducting this assessment, the ERO adopts the following stages:

- In the first stage, an assessment framework is developed based on the concerned policy documents.
- In the second stage, based on the framework prepared, development of assessment questionnaire, pre-testing (Piloting) and finalizing the instrument based on the results of the pre-testing are done.
- In the third stage, the assessment is carried out. While conducting the assessment, it is tried to represent the children from all the seven provinces and geographical areas of the country and from community and institutional schools as well (Bhusal, 2023).

Purpose of the ELDS Based Assessment and PA of ECED Centres

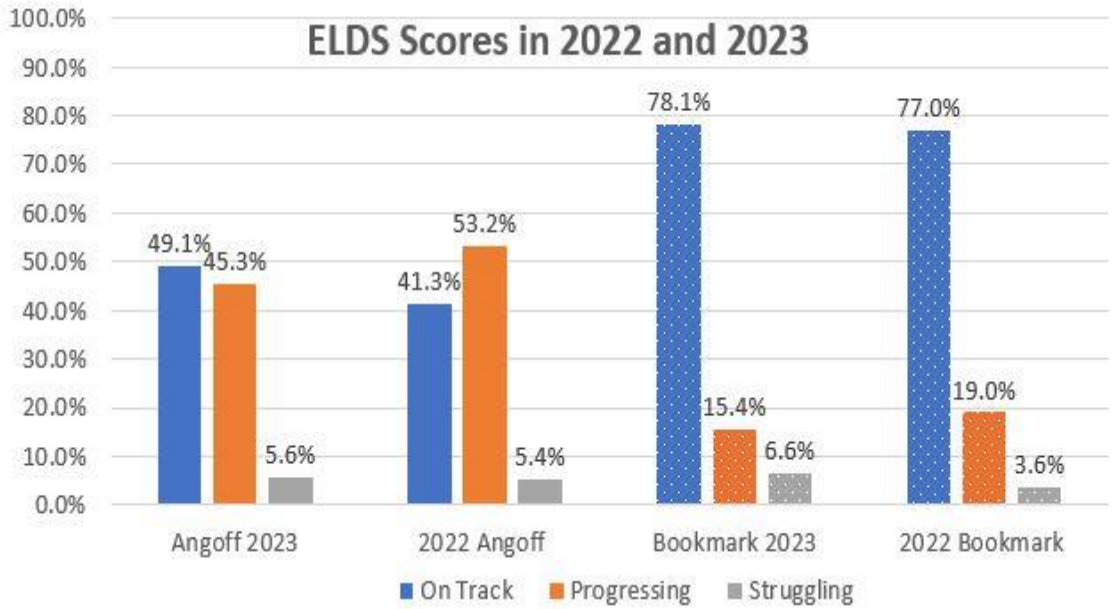
The main purposes of the ELDS based assessment and PA of ECED centres are as follows:

- To find out linguistic, intellectual, physical and social development level of the concerned children.
- To get information about educational and management related conditions of ECED centres.

This kind of assessement and audit had taken place mostly in the years 2022 and 2023. Altogether 274 and 276 ECED centres were taken for assessment in the years 2022 and 2023 respectively. The summary of the results of those assessments are shown in the following figure of the diagram.

Figure 1

Summary of 2022 and 2023 assessments' findings



The above figure in the diagram indicates that when comparing the findings from 2023 with 2022, we can observe that the On Track students in 2023 has increased to 49% from 41% (recalibrated) in 2022. Whereas there is a decrease from 53% of progressing students in 2022 to 45% in 2023. The Struggling student has remained unchanged between 2022 and 2023.

National Assessment for Reading and Numeracy (NARN)

In the initial years, the ERO conducted NASA in grades 3, 5, 8 and 10. In 2020, for the first time, the ERO started conducting NARN in grade three. In it, the reading and numeracy skills of the students are assessed. The average learning achievement of it is reported as in the following table.

Table

5 Overall achievements in reading and numeracy

Skills	Assessment type	Est. Population	N	Achievement in Percentage
Reading	Group assessment	332139	6815	43.53
Numeracy	Group assessment	345950	7024	37.22

(ERO, 2020)

The above table shows that the achievement percentages in reading and numeracy are 43.53 and 37.22 respectively. By this, we have to mean that each student was able to solve about 43.5% of the reading related problems and in the case

of numeracy s/he became able to solve only 37.22% problems on an average. This indicates that the students are not good at both the reading and numeracy.

Other Audits

Besides the above-mentioned audits, the ERO has also been conducting the head teacher leardership performance audit (HTLPA) of community secondary schools' head teachers, local government's performance audit (LGPA) of the activities of local level education entities and the customer satisfaction survey (CSS) of those entities' service delivery (Bhusal,2023).

Problems and Challenges

Despite some efforts and achievements, the problems and challenges experienced by the ERO in terms of its performance can be mentioned as follows:

Problems

- *Insufficient interest and support of the MOEST*: Currently, the ERO is a departmental body under the MOEST, while the intent of the education act seems to keep it as an autonomous body. Similarly, in regard to improving the physical as well as other infrastructure, capacity buiding of its staff and enhancing management of ERO, the interest and support from the ministry is felt insufficient.
- *Inadequacy in the use of reports*: Even though the ERO has been conducting the various assessments, PA as well as the mini-researches and publishing the reports, it seems that the concerned stakeholders do not seem aware and interested to using the recommendations of those reports in their policies and programs.
- *Less publicity and cooperation*: To be honest, even some school education related stakeholders do not have information about ERO and its functions. In the same way, coordination and cooperation with the entities of three tiers of government seem quite low.
- *Inadequacy of HR capacity building programs*: The major task of the ERO is to test the effectiveness of the school education system of Nepal and show the status to national and international level, but the capacity of its human resource seems very poor.
- *Weak physical infrastructure and other facilities*: As per the mandate of education act and other policy documents, the ERO is supposed to be an autonomous agency with adequate physical infrastructure, human capacity and other facilities, but the condition of it seems pathetic (Bhusal, 2023).

Challenges

- *Appointment of Chief Education Auditor*: Education Act 2071 (8th Amendment) has provisioned a Chief Education Auditor at ERO to be appointed by the Government of Nepal on the recommendation of the committee chaired by the Chairman of the Public Service Commission to make it work autonomously. But the process has not started yet.
- *Changing the existing structure and working modalities*: The present structure of the ERO is almost overshadowed by the MOEST with the traditional bureaucratic working modalities. It demands to develop a roster of academically and technically skilled academicians and researchers and to initiate the contextual working modalities.
- *Effective implementation of the NASA cycle*: Even if the ERO has tried its best to implement a three-year NASA cycle, the effective implementation of the cycle seems to be challenging due to resources, capacity and many other reasons.
- *User friendly reports development*: In various forums, most of the concerned stakeholders respond that the reports published by the ERO are not understandable to real stakeholdres due to the technicalities of the reports. So, it is challenging to make such reports more user friendly.
- *Connecting the results with the international world*: There is a strong need to effectively connect the results of the achievement tests with Global Proficiency and Sustainable Development Goals (SDGs).
- *Making ERO resourceful*: To make the ERO activities more effective, it is important to manage the necessary physical infrastructure like appropriate buildings as well as electricity back up, ICT equipments, data processing lab, Item Banking system, etc. in the ERO.
- *Empowering human resources*: It is essential to involve the ERO staff and experts in related training programs, study visits, and experience sharing activities for empowering them and enhancing their capacity of assessment, audit and research as well as to enhancing the quality of assessment, audit and overall ERO funcitons (Bhusal, 2023).

Suggestions and Way Forward

Taking the above problems and challenges into consideration, the following steps are better to be taken for further improvement of ERO activities:

- The Chief Education Auditor of ERO is to be deputed in accordance with the mandate of the Education Act.
- ERO has to plan to implement the NASA cycle effectively in close coordination with concerned stakeholders.

- The test items are to be developed by the relevant subject teachers of the respective grades and moderated by high-level experts. A roster of expert teachers for developing test items and for reviewing them should be developed with the provisions of refresher trainings in the field of assessment in a timely manner.
- The NASA cycle and audit tasks are to be made compatible with the School Education Sector Plan (SESP).
- It is better to establish an efficient separate unit in ERO for data entry, cleaning and analysis.
- NASA report should be published within six months of NASA administration. To make the reports more reader friendly, it would be better to use both Item Response Theory (IRT) and Classical Test Theory (CTT) while analyzing and interpretation.
- To maximize the use of reports, multiple reporting systems are better to be used. Thematic reports should be prepared by ERO. If any organization demands ERO data to produce reports thematically, it would be better to provide assessment and audit data on the basis of legal provisions.
- The proper coordination mechanism is to be developed involving the representatives of all the three tiers of governments to make NASA and audit campaign effective.
- The NASA's results are to be connected with Global Proficiency and Sustainable Development Goals (SDG 4) to make them comparable with other international large-scale assessments.
- ERO needs to be developed and strengthened as an autonomous and independent organization, keeping it free from the direct influence and regulation of the MOEST.
- ERO should be equipped with a more sophisticated infrastructure and information technology.
- To maintain the sustaibility, institutional memory and effectiveness of ERO functions, it should be provisioned to appoint some personnel having very good assessment and research capacity by the ERO itself.
- ERO should have a pool of qualified and trained personnel experienced in the field of assessment, audit and research. For it the personnel are to be provided opportunity in the various capacity-building sessions offered by national and international organizations.
- The results of assessments and audits should be disseminated to schools and the schools are to be encouraged to develop learning improvement plans and take appropriate action to enhance the level of students' achievement.
- Some of the relevant items of international assessments are to be calibrated

and the scores are to be comapared using IRT modelling, thereby facilitating a meaningful comparison with international standards.

- Restructure the present organizational structure of the ERO to meet the present day national and global need of learning assessment, performance audit and research (Bhusal, 2023).

Conclusion

To enhancing the accountability of overall education system, the global community seems to be involved in the activities like assessment, research, and evaluation. More specifically, this practice is found in the sector of school education. The activities of such nature seem to be carried out through autonomous organizations. In the context of Nepal, these kinds of works are carried out by the ERO under the MOEST. After its establishment, the ERO has been conducting various NASA, NARN, ELDS based assessment, PA of schools and educational entities and various mini-researches on educational issues and providing recommendations to the concerned agencies. The ERO has been trying its best to develop it as an agency for assessment and audit by assessing learning achievement of school children and auditing the performance of schools and education entities. However, there are various problems and challenges like appointing the Chief Education Auditor, effective implementation of the NASA cycle, linking the results of NASA with Global Proficiency and SDGs, enhancing the quality of assessment, audit and overall ERO functions. It demands an appropriate collaboration and coordination with concerned stakeholders as well. Appointing the Chief Education Auditor, restructuring the ERO, developing pool of experts, enhancing capacity of its staff and experts, collaborating and coordinating with all the three tiers of govermnets and other stakeholders can be possible mitigation measures of the problems and challenges. If an effective improvement action plan is developed and implemented in coordination with concerned stakeholders, it seems that a new dimension can be added to the improvement of student learning achievement and overall educational system through proper assessment and audit endeavours.

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