

Education System Coherence in Ethiopia: The Case of GEQIP-E Implementation

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Abstract: *This research was intended to explore the extent to which the Ethiopian education system was coherent for learning outcomes by taking the case of a large-scale education reform, GEQIP-E. A qualitative research method was applied with data collected from key stakeholders of GEQIP-E and Ethiopian education. The data was part of the Ethiopian national education diagnosis carried out by the RISE Ethiopian Country Research Team⁵. The set of key stakeholders involves the Ministry of Education, the World Bank, other donors, Regional Education Bureaus, Woreda Education Offices and one City Administration, Addis Ababa. A slightly modified version of Pritchett's five-by-four accountability model was used as a theoretical framework for the analysis of the data. The results suggest two types of incoherence for learning outcomes; (1) incoherence between design elements of accountability; and (2) incoherence between systems of accountability. The Ethiopian education system was largely coherent for schooling focusing on increasing enrolments and grade attainments but not coherent for learning outcomes. It is not however clear whether the incoherence is attributable to the design of the education system itself or the production model uncritically pursued by educational planners. A probe might be needed to resolve this dilemma.*

Key terms: education system, accountability, system coherence, RISE, learning outcomes

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Introduction

Education System Coherence in Ethiopia, the Case of GEQIP-E explores the extent to which the Ethiopian educational system is coherent for learning outcomes by taking the case of a reform project, *General Education Quality Improvement Program for Equity (GEQIP-E)*. Unlike its two predecessors (GEQIP I, and GEQIP II) GEQIP-E stands for improving learning outcomes with an equity focus (World Bank 2019). It also uses a result-based financing system called PfR or Program for Results. This means financial disbursement follows evidence of successfully performed DLIs/DLRs (Disbursement Linked Indicators and Disbursement Linked Results).

Coherence in the context of education is generally defined as an approach and mindset that consciously addresses fragmentation, shapes successful policies and solutions and restores the sense of shared purpose to create a better learning experience for all students (diSessa et.al. 2004; coherencehab.org/what-is-coherence/). The Coherent Lab Fellowship reports that coherent systems emerge when state and local education officials, school administrators, educators and local communities are involved in shaping decisions. School communities are impacted the hardest during fragmentation [/coherencehab.org/what-is-coherence/](http://coherencehab.org/what-is-coherence/).

When we work in coherent ways, our policies and solutions are much more likely to do what they are meant to do and produce equitable outcomes for all students (ibid). For instance, coherent curriculum refers to the alignment of learning standards and teaching; that is how well and to what extent a school or a teacher matches the content that the students are actually taught with academic expectations described in learning standards; it also refers to coherence among the many elements that are entailed in educating students, including assessments, standardized tests, textbooks, assignments, lessons and instructional techniques (edglossary.org/coherent-curriculum/). Coherence is a change strategy that develops the whole system culture. It is about integrating the organization vertically and horizontally around beliefs and culture (Malone et.al. 2018).

Fullan and Quinn (2016) argued that organizational coherence is what distinguishes schools and school systems that are making a significant impact on student success from others. According to the two authors, coherence involves a combination of a small number of ambitious goals being relentlessly pursued, being vigilant about reducing distractors, helping with professional capacity building, using student and other data transparently for developmental purposes, building in strategies for implementers to learn from each other on an ongoing basis, and marking progress with lots of feedback and supportive intervention.

The Association of Wisconsin School Administrators (AWSA, 2022) report that creating a coherent school/district requires that leadership simultaneously works on four important and interconnected areas: focusing direction, cultivating collaborative culture, deepening learning in areas of focus, and securing collective accountability.

Analysis of the existing education literature and surveys carried out in the entire country in 2015 and 2016 suggest the prevalence of critical education gaps both in policy as well as practice. Implementation problems of education were as much critical challenges as policy problems. Serious implementation gaps were observed in the five

education goals - quality, relevance, efficiency, access and equity - and in all sub-sectors of education (general education, higher education, and TEVT). It is also interesting to find that the five system outcomes (goals) were highly interrelated even one affecting the other. For instance, access was affected by the inefficiency of the system, in that completion rates are very low at upper primary, and the inability of the system to keep students in school, which in turn could be the result of low quality of education.

The effort for greater access has overstretched resources and frustrated teachers (because they feel it is not their professional responsibility to visit parents to bring the child back to school). Teachers believe that they are accountable for teaching and learning and not for solving social or political problems of their students such as getting them back from dropping out of school which they felt are compelled to do now. Teachers understand that the schools have become centers of politics and ideology instead of pedagogy and academic activities. In other words, according to the teachers, the primary mission of schools is now shifting from pedagogy to politics as the school principal has to *account for* how many party members he has recruited during the year (to the Woreda Education officials) instead of *accounting for* learning outcomes. Failures in the former are more consequential than failures in the latter.

According to the survey results (Education Roadmap, 2016; RISE Ethiopia, 2017), schools do not have mechanisms for holding their students to account for their learning. It is also observed that only the economically better-off children get better learning achievement results; successfully complete college; and get the best jobs in the country. Research participants feel the greatest inequity in education between classes, the poor and the rich. Poverty was found to be the worst enemy of access to education as well as learning achievement. Stakeholders of education felt that much attention was not given to inequity that arises from poverty as much as gender, region and special needs. According to them, economic status is a major source of inequity in education (completion rate as well as learning achievement).

The most important quality gaps are that the teaching profession is less attractive and that mainly very low achievers join it. Colleges of teacher education also report that their candidates are also unmotivated to learn during their period of training. In schools and institutions, these poorly trained teachers lack the competence and the willingness to motivate the students to learn. They have a very high job dissatisfaction that may result in poor performance in schools.

Student achievement in national tests (in Tigray or nationwide) was dismally low despite high grades in teacher-made tests. Usually, students and teachers followed examination syllabuses (instead of the curriculum) to pass examinations during their teaching and learning process. The curricula of schools are not properly structured along the different levels of generic and subject-area competences. Teachers try to transfer a massive amount of content from the books and students memorized the contents of the different subjects to pass examinations rendering the policy of active learning null and void. Even, the subject, Civics and Ethics Education, is taught in such a way that students study it to pass examinations not to make them civil or ethical. A very good example of this educational shortcoming is the extent to which students cheat in examinations and the extent to which the civil service is engaged in rampant corruption.

Teacher turnover is also rampant. Teachers take the teaching profession as the last choice of their jobs. They reported that they would exchange their teaching job for anything including working in manual work; being employed as a personal security officer, cobblestones, mineral farming and migration to Arab countries. The retention problem of teachers is also highly observed in TEVTs and universities due to the less competitive remunerations.

Educational governance was also found to be problematic. Political interference and top-down governance served as the major hindrance and source of stress and burnout for teachers. They believed that the School Based Management system (SBM) is more appropriate to make

teachers feel more responsible for their students and parents; and that local (Woreda) education heads should not interfere with the day-to-day activity of the school. Schools must have autonomy and be accountable to their respective communities in the form of school boards. Teachers must also have the freedom to design and teach their courses. If communities or municipalities own the schools, they can closely support them and make them accountable to them for high-quality education.

It is therefore critically important to carry out further research to improve learning achievement by making the teaching profession competitive and by establishing a system of SBM type of education governance. High-achieving students must be willingly attracted to the teaching profession; properly trained in teacher education colleges; and professionally developed and retained in the place of work.

Research is also needed on the effect of social class on learning achievement and gainful employment in addition to equity research on gender, geography and patterns of economic life (pastorals) to ensure equity. In the Ethiopian context, poverty is a great hindrance to access, equity and quality. Lunch programs and other top-ups can help the poor catch up with the rich. Above all the system must be conducive for learning. It must be structured and designed more to enhance learning outcomes than other objectives of the system. The argument in this paper is that all input and process factors of education can have high learning gains only when the educational system is working. Inputs of education, such as textbooks, laboratories and instructional materials cannot have a learning effect if the system of education is not coherent. A coherent educational system means the relationship among all educational actors is coherent. This relationship of course is a relationship of accountability. This research shall therefore focus on exploring the extent to which the educational system is coherent for learning outcomes.

Purpose of the study

The purpose of the study is to assess the extent to which the Ethiopian education is system coherent for learning outcomes by taking the case of the GEQIP-E implementation.

Research Objectives

- Explore coherence or incoherence between design elements within a relationship of accountability—for instance, coherence between finance and delegation within compact or management relationships.
- Explore coherence for the same design element across different relationships of accountability; for example, coherence in motivation in compact and management accountability relationships.
- Explore coherence across all elements of two different accountability relationships—for example, front-line actors are required to be accountable to parents and citizens (client power) and education officials (management) at the same time. Incoherence takes place when the needs of the two masters are different.

Theoretical Framework

The idea of accountability for learning outcomes has a long history. In December 2001, the US decided to improve educational outcomes through accountability for learning (the RAND Education, 2001). The “No Child Left Behind” act of 2001 increased the importance of accountability by mandating an accountability system that measures school performance through student test results (ibid).

By 2015, the second Millennium Development Goal brought millions of children including in the Least Developed Countries such as Ethiopia to the school. As 2016 begins, however, the world noted that it finds itself in

a global *learning crisis* (UNESCO, 2014). A new goal of education was therefore set, Sustainable Development Goal (SDG 4) which focuses on achieving “relevant and effective learning outcomes” (Scur, 2016).

Since then, educational research focused on the impact of many reform efforts in many Low Income and Middle Income countries. The impact which aimed at improving student learning outcomes varied greatly across contexts (Glewwe and Muralidharan, 2015). Regarding variations in outcomes, Pritchett said: “In some places, smaller class sizes lead to better learning outcomes, while in others, they do not. In some places, higher teacher salaries lead to better learning outcomes—in other places, they do not. In some contexts, more teacher exposure to in-service training leads to better student learning outcomes, but in other contexts, it does not” (Pritchett, 2015 p.4).

Pritchett (2015) was motivated to think about why education in many countries varied so much and why in certain countries it was so bad. He asks, “Why is education so bad despite huge government investments”? (p. 4). Why is it that the traditional input and process factors do not have a significant impact on learning outcomes in some countries?

Lant Pritchett identified two types of educational determinants: proximate determinants and determinants of determinants. Proximate determinants of education are immediate causes. They can be educational inputs or processes, such as reducing class size and bringing about changes in learning outcomes. Determinants of proximate determinants however could be political causes; or cause of causes. For instance, poor teaching (proximate determinant) could cause low learning outcomes. Poor teaching is a proximate determinant of learning outcomes. Low motivation could be the cause for poor teaching by teachers, which means low motivation has caused poor teaching and poor teaching caused low learning outcomes. Low motivation in this case is a determinant of proximate determinant. The chain of causality could continue until we reach the ultimate cause of things (teleological causes), in this case, the system or political economy could define the

context for the effect of interventions on learning outcomes. Pritchett in this case is introducing systems thinking and the idea of coherence to education. In this case, the political system serves as a context for the relationship between interventions and learning outcomes.

Pritchett stated many countries that had massive, historically rapid expansions in school exposure and which thereby spent large fractions of the resources deployed by the government on schooling, yet had much lower learning outcomes:

These countries have a system of education that, although proclaiming the goal of achieving uniformly high levels of learning (competencies, skills, values, knowledge), became, for a variety of reasons, coherent only to the purpose of schooling. That is, the system of relationships of accountability were adequately coherent to produce continued progress in enrollment and grade attainment expansion (and concomitant expansion of teacher and non-teacher inputs both in total and, frequently, per child) but were incoherent for learning both within, between, and across elements of accountability (Pritchett, 2015 p. 38).

Pritchett argues that an important reason for the disappointing learning outcomes results is that the *systems of education* within countries have long been built with a focus on goals of enrolment rather than learning, and lack coherence for learning between elements of their systems (p.4).

He defined educational systems as having actors and relationships between them. By adopting the World Bank's World Development Report (WDR, 2004), an accountability relationship of policymakers, providers and citizens, he developed a framework which consisted of four sets of actors with clear relationships of accountability between them and design elements of this relationship (initially four design elements but later amended to five elements). He then asserted that systems of education work when there is an adequate flow of

accountability in the system designated as coherence between, within and across relationships of accountability. Relationships of accountability exist between principals and agents. The principal sets objectives for the agent to complete the task.

The RISE System Framework adapted from Pritchett (2015) by Kaffenberger and Spivack (2022) is presented in Figure 1. Pritchett's RISE Working Paper provides a new way of thinking about systems of education that are coherent for learning. It gives a way to answer the question of "how schooling could have expanded so much and learning results gotten so bad?" (Kaffenberger and Spivack, 2022). This framework can be viewed as a matrix of four principal-agent relationships and five design elements of each relationship. A brief definition of the elements of the 5x4 framework is presented below.

The four principal-agent relationships are:

Politics – interaction between citizens (as the principal) and the highest executive, legislative and fiduciary authorities of the state (as the agent).

Compact– interaction between the highest executive, legislative and fiduciary (judiciary?) authorities of the state (as the principal) and education authorities and organizations (as the agent)

Management– the relationship between education authorities and organizations (as the principals) and school leaders and teachers on the front line (as the agents).

Voice and Choice– the relationship between recipients of services (principal) and the providers of services (head teachers and teachers).

Each of these relationships is characterized by five design elements:

- **Delegation** is what the principal wants the agent to do.
- **Finance** the resources the principal allocates to the agent to achieve their assigned task.

- **Information** on how the principal evaluates the agent's performance.

- **Support** preparation and assistance that the principal provides to the agent to complete the task.

- **Motivation** is how the principal motivates the agent, including how the agent's welfare is contingent on their performance against objectives. Can be extrinsic (mediated by the principal) or intrinsic (mediated by the agent).

Figure 1 depicts how a system of education works. The arrows represent relationships between actors which Pritchett called relationships of accountability. The feedback loop appears like an electric circuit where accountability flows through it. If the circuit breaks at a point, the system fails to function optimally. Depending on the flow of accountability along the feedback loop, Pritchett identifies three types of coherences or incoherencies. These are:

1. Coherence between design elements within a relationship of accountability - for instance, coherence between finance and delegation within compact or management relationships.
2. Coherence for the same design element across different relationships of accountability—for example, coherence in motivation in compact and management accountability relationships.
3. Coherence across all elements of two different accountability relationships—for example, front-line actors are required to be accountable to parents and citizens (client power) and education officials (management) at the same time. Incoherence takes place when the needs of the two masters are different.

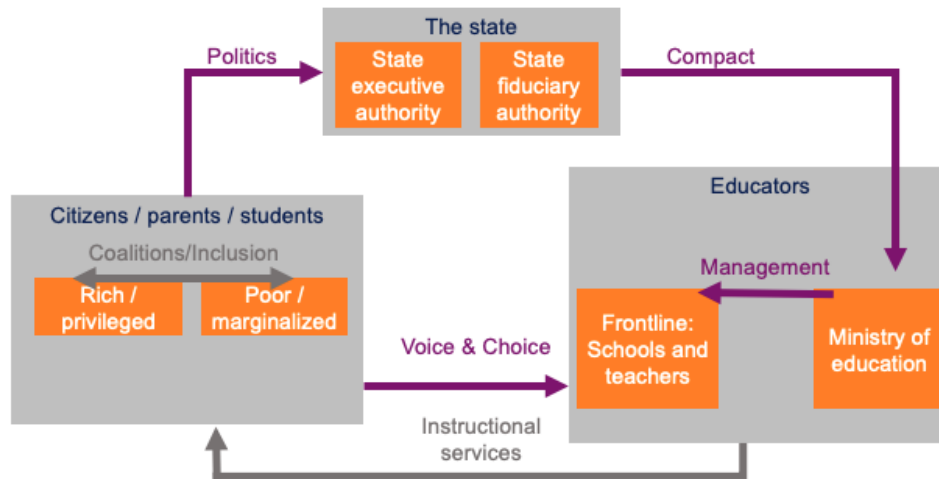


Figure 1: Lant Pritchett's Framework of Accountability Coherence

Source: Adopted from Kaffenberger and Spivack 2022.

Research Method and Data Collection

A qualitative research method was used to assess the coherence of the Ethiopian education system using the case of GEQIP-E. Data were collected using ethnographic design with interviews carried out with a wide variety of education stakeholders including development partners such as the World Bank and UNICEF. More specifically data was collected in July 2022 from the Ministry of Education, Ministry of Finance, five Regional Education Bureaus (and their respective Woreda Education Offices), the World Bank, UNICEF and other donors and one City Administration (Addis Ababa).

About 40 different stakeholders were purposely selected (for their knowledgeability and relevance) and interviewed as shown in Table 1. The questions were directly linked with the implementation of the GEQIP-E program. Moreover, questions that addressed system

coherence in the design and implementation of GEQIP-E were included. Specifically, the interview protocol was intended to capture qualitative data on the PfR financial disbursement modality. Data on gender and disability, the impact of COVID-19 on GEQIP-E and to what extent these issues are aligned and incoherent with the overall educational system are collected but presented in different papers. Table 1 shows the list of participants that took part in the study.

There is no serious issue of ethics in the data collection process. Interviewers were professionals mainly interested in the intellectual aspect of the research. Research participants had no conflict of interest as all were only curious to understand what was going on in the education system. The researcher-researched relationship was so cordial that misunderstanding could barely be predicted.

Table 1: Research Participants: Actors and Stakeholders of Education

Level	Participants	No.
Ministry of Education	Planning/GEQIP-E Coordinator	5
	ICT & EMIS Directorate	
	Gender and Inclusive Education	
	School Improvement Directorate	
	National Educational Assessment and Examinations Service	
Ministry of Finance	GEQIP-E focal person	1
Regional Education Bureau	REB Head	20
	Planning/GEQIP-E Coordinator	
	Curriculum and Teacher Education Examinations	
Woreda	WEO Head	5
Donors	World Bank	4
	FCDO	
	UNICEF	
	Embassy of Finland	
Total		40

Strategy of Analysis

The interviews were carried out in English and digitally recorded. They then were transcribed verbatim. The transcript was then coded into holistic themes with codes categorized into themes and themes to patterns. The themes that emerged from the data were not any different from the predetermined themes such as coherence of finance with learning outcomes; or coherence of motivation with learning outcomes, etc. As one would expect from the qualitative research method, the researchers used these themes and descriptions to analyze their data holistically.

Research Results

This section will analyze the Ethiopian GEQIP-E stakeholder data using the first two types of incoherencies/coherences observed in implementing, coordinating and monitoring the project, GEQIP-E. Data on the school community, front-line actors and the state are not available to study coherence across all elements of two different accountability relationships, No. 3. Therefore No. 3 is not included in this study.

Contextualizing Pritchett's Framework: The Case of GEQIP-E Implementation

In Pritchett's framework, four types of stakeholders who act in the educational system either as principals or agents were observed. These had vertical relationships where agents were supposed to account for their respective principals.

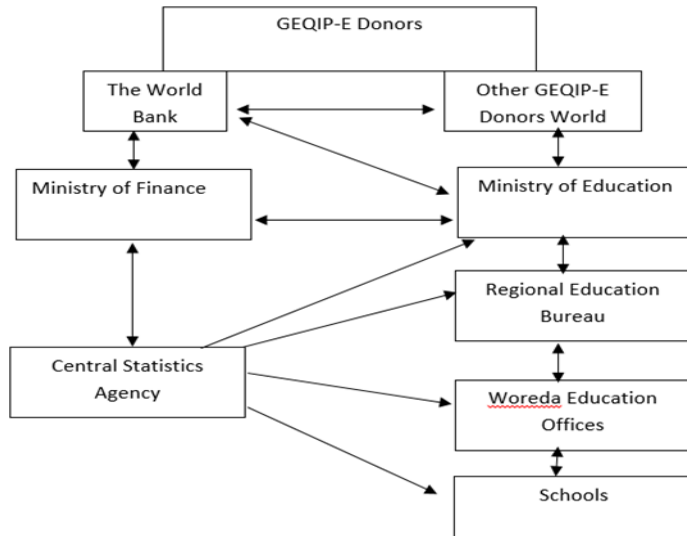


Figure 2: The Structure of GEQIP-E Implementation

Source: Adopted from Yorke, L. et al (2022). Is the Program for Results approach fit for purpose? Evidence from a large-scale education reform in Ethiopia. *Third World Quarterly*, 43:5, 1016-1037 (2022).

GEQIP-E design and implementation, however, seems to have slightly a different type of structure (See Figure 2). The World Bank, other donors, MOE, REBs, WEO, schools and the school community are the major actors of education in GEQIP-E implementation. As MOE has always taken the initiative to design the educational system (mainly the curriculum) of Regional States (REBs) despite their autonomy, presumably due to reasons of capacity deficit in the latter, it is not wrong to put MOE as the principal and REBS as agents in the accountability relationship of the Ethiopian educational system. The state (the legislative organ) as the most important principal and agent of education is not considered in the analysis of implementation of GEQIP-E due to the absence of data. Figure 2 shows a slightly different structure (from

that of Lant Pritchett) as the World Bank and other donors are involved in the management and financing of GEQIP-E. The research is expected to explore the kinds of accountability coherence that exists in this kind of modified structure.

Coherence between Design Elements of Accountability: The Case of GEQIP-E

The World Bank plan document (World Bank, 2019) shows GEQIP-E has three Program Development Objectives (PDOs). These are; to improve internal efficiency, improve equitable access, and improve quality in general education (O-Class to Grade 12). These three PDOs are operationalized under many indicators called DLIs/DLRs (Disbursement Linked Indicators or Disbursement Linked Results) with targets or milestones for each year. The 2016 education data was used as a baseline data for each DLI or DLR. Analysis of education system coherence will follow in the ensuing sections using the perspectives of learning outcomes as well as the three GEQIP-E objectives.

Delegation-Learning Outcomes Incoherence

The three objectives can be taken as the delegation of GEQIP-E. However, our interest is analysis of how the GEQIP-E has helped the education system of Ethiopia to be coherent with learning outcomes. We will then analyze how the design elements of accountability are coherent with learning outcomes using the stakeholders' interview data. Learning outcomes are therefore taken as the delegation in this study.

GEQIP-E started in 2017 and was initially intended to be completed in July 2022. Development Partners and the Ethiopian Government have however later agreed to extend the end date by one year because of COVID-19 that has brought about school closures in 2020. GEQIP-E has a Program Administrative Document (PAD) with a Program for Results (PfR) implementation strategy. The implementation strategy, PfR, seems to be new to the Ethiopian education sector albeit being practised

in some areas such as the health sector (Carvalho et al, 2022). Regarding the application of PfR, one stakeholder said, “I think PfR has its principles. The Government takes loans from the treasury and implements the agreed-upon interventions”. He added:

PfR is the best instrument in such societies where we have plausible policies and strategies but we don't often see them effectively implemented because the level of accountability of the government to the child is low or even absent. We are not familiar with the rights-based approach for development in this country. I doubt the child holds the government accountable for its education. Rights-based thinking and accountability - which can greatly help the government in policy and strategy—doesn't exist in Ethiopia. In this case I would say PfR is the best instrument to push to incentivize the government to deliver on certain milestones.

Stakeholders reported that only 20 percent of the incentives are outcome-oriented as GEQIP-E is designed to achieve both outcomes and inputs. All DLIs/DLRs are implemented in the schools with school grants. Each school receives school grants from the GEQIP-E project based on student numbers. According to the research participants, the successful implementation of the GEGIP-E project is partial. Equity-related DLIs/DLRs were achieved as enrolment increased in the regions, of Afar, Somali and Benshangul. The establishment of 800 Inclusive Education Resource Centers (IERC) in the country (600 additional IERCs are underway) has also improved the enrolment of children with disability. Each IERC is equipped with tools that help disabled children. “For each Inclusive Education Resource Center, USD 30,000, and later an addition of USD 10,000 annually was allocated to facilitate different activities in the Center—to buy equipment, train teachers and distribute the equipment to Satellite schools”. Yet the Centers still face a shortage of basic learning materials including stationery.

The provision by schools of personal hygiene kits to female students has decreased the dropout rates of girls to some extent. “What we have done has to do with improving the number of girls who have access to education so that their number becomes equal with that of their male counterparts” said one research participant. “This addresses the educational needs of girls”, he added. Disbursement of the school grant to schools is also a very critical input to schools. “There are schools which do not get basic teaching materials on time like “chalk and duster. It means a lot to them”. School grant is the backbone of schools. GEQIP-E is filling the gap of recurrent expenditure. “When it comes to quality, it still has a long way to go”. It is now producing intermediate outcomes only. By using the GEQIP-E program, textbooks are distributed to students and training is delivered to teachers; teaching effectiveness is improving; and inspection levels are improving. This GEQIP-E performance level suggests a commitment to educational inputs and enrolment with limited performance in learning outcomes. One can clearly observe that the Ethiopian education system is coherent around schooling rather than around learning outcomes.

According to the Early Grade Reading Assessment (EGRA) conducted in 2021, about 68% and 51% of grade 2 and 3 students were respectively found to be zero readers in the Oral Reading Fluency sub-test (EGRA, 2021). These students were automatically promoted to grades 3 and 4 respectively despite their lack of competence in reading comprehension. During school closure due to the COVID-19 pandemic, the Ministry of Education publicly announced on the mainstream media in September 2020 that all students in grades 1 to 7 and grades 9 to 11 were granted automatic promotion to the next grade level without any assessment or examinations. This is a clear example of coherence with schooling and incoherence with learning outcomes. In this case, the delegation is not learning outcomes but schooling.

When the rest of the requirements, DLIs/DLRs, were not met, a restructuring was proposed either by MOE or the World Bank. When research participants were asked the question, “who initiated the

restructuring, some research participants said it is the World Bank and others said it is the MOE. One participant said, “The World Bank found out that the requirements it set were not met for the most part. So it initiated the restructuring along with MOE to give us a second chance to revisit the DLIs/DLRs. If the restructuring had not been made, we could have missed the grant altogether”.

The data suggests the results achieved by GEQIP-E are exclusively related to inputs or access issues. Even the success achieved in equity relates to equity in access and not to equity in learning outcomes. Equitable learning outcomes appear not to have been achieved yet, according to the research participants. When one of the stakeholders was asked about the impact of GEQIP-E, he said that out of the five listed KPIs (Key Performance Indicators), most of them are not achieved. “I think one or two which are focused on equity and access related to inclusive education, school grant disbursement for emerging regions, and girls clubs are achieved. But others, for instance, internal efficiency is sliding in some of the cases below the baseline” suggesting incoherence of delegation with learning outcomes.

Another stakeholder said:

The grant has improved schools' equipment such as furniture and enrollment rate because they don't have any other revenue from external partners; however, when it comes to the system and quality of education, based on the finding of our study, it is declining. Students' results are shockingly low: 60% of grade 2 students, for instance, have not acquired the minimum knowledge they are supposed to acquire in two years. The grant means a lot for schools, but it has not yet achieved its intended goal of improving the quality of education and students' performance. Simply put, there is a mismatch between the investment and students' performance.

Another research participant reported how low-effects GEQIP-E has on learning outcomes:

After learning for two and three years, there are students who cannot read. Grade 3 students' result is slightly better than before, but it is not even worth mentioning given the overall deteriorating quality of education. I believe our intervention areas must be well researched; we must identify key areas and invest our limited resources properly in a goal-oriented manner. We need to improve some important aspects such as teachers' salary and capacity. In my opinion teachers' motivation and capacity plays an important role to improve quality of education. If we invest our limited resource on every aspect of the education sector, at the end of the day we may not be able to achieve anything on any one of those areas. In my opinion, model schools must be selected for study, and they should be studied and supported. When the support produces the intended result, it can be repeated in all the other schools nationwide. Ethiopia's education system in the lower grades requires a serious improvement. I don't know how we expect the students to gain more than what the teachers can give. The teachers themselves need to be capacitated and motivated.

According to the research participants, the learning status of female students remains the same as before. It is lower than for male students. Enrolment of female students has increased however the overall academic result is the same as ever; it is lower than that of boys said another research participant. Equity of enrolment has increased but equitable learning that is equity in learning outcomes however has remained low. GEQIP has not improved equitable learning but only equitable access.

According to some research participants, due to COVID-19 and conflict in some parts of the country, the expected outcomes were not achieved and therefore a restructuring was needed which implies reducing the number of DLIs/DLRs and lowering down the targets of DLIs/DLRs. The restructuring was dictated by the prevailing reality said a research participant. Another participant said the restructuring made the project adaptable. One research participant argued that baseline data might have contributed to the failure in the achievement of targets because targets might have been inflated during planning due to inflated baseline data specially those related to learning outcomes.

One donor research participant said, in a biannual Education Technical Working Group (ETWG) and GETP platform, GEQIP-E was evaluated and its performance was Satisfactory. But “Time is short to expect results such as on learning outcomes or equity, he argued. There is no concrete result at impact level in learning outcomes”. Another reason why GEQIP-E did not have an impact on learning outcomes could be the planning itself which was ambitious and unrealistic according to another research participant. “Plans are not based on consultation and feedback of all concerned stakeholders—Regions, Zones, Woredas, parents and community members. In addition, there is a data gap including collection and storage creating a serious constraint to the achievement of learning outcomes. There is also a capacity gap in some regions to implement the program”.

“I don’t think the reimbursement modality is working in Ethiopia,” said one stakeholder. It works in countries that have enough resources. Unless we have enough resources at the school level; it would be very difficult to change and achieve results. One major stakeholder attributes GEQIP-E’s low effects on learning outcomes to the design itself. He said that the financial approach used by GEQIP-E, PforR is not productive.

Apparently, the results of learning outcomes were not achieved by GEQIP-E intervention. The DLIs and DLRs mostly focused on inputs and enrolments called intermediate outcomes which in turn are assumed to

facilitate learning outcomes. The implementation of GEQIP-E has clearly demonstrated incoherence of delegation-learning outcomes. The next section explores how finance, one of the design elements of accountability, plays a role in creating or constraining coherence with delegation (achievement of learning outcomes).

Finance-Delegation Incoherence

In the context of education system coherence, finance relates to all resources that support the agent's performance to achieve the requirements of the delegation and learning outcomes. The allocated finance should also motivate the agent to perform according to the required delegation. In the context of GEQIP-E implementation, stakeholders have described the finance-delegation incoherence in several ways: some say the allocated budget is too small to cover the necessary costs; others say that there is a bureaucratic method of disbursement which makes budget release cumbersome and still others complained of inappropriate utilization of the funds. One stakeholder said, "One factor that affects the implementation of GEQIP-E is the small budget for the activities; shortage of human resources to handle the program activities and shortage of money for per-dim". He continued, "The amount of money allocated for printing textbooks was 40,000 birr which was insignificant which might not serve even for printing brochures. The same is true for per-dim and hotel service". Another argued that the only money received at the school level is a school grant but all activities are to be implemented at the school level; unless there are enough resources at the school level, it would be very difficult to change and achieve results.

Stakeholders emphatically reported that the disbursement process was very bureaucratic. When releasing the money, it goes through a long process: first, it is sent to the Regional Finance Bureau, then to the Regional Education Bureau (REBs), and then it reaches the Woreda Finance Office (WFO). The WFO finance experts report that they are given little time for making school grant payments. This was a great

challenge for them to disburse the funds efficiently. Consequently, schools reported challenges experienced in performance because of delays in disbursements.

Other stakeholders criticize the planning process itself. For instance, one stakeholder said:

My overall comment starts from the planning stage of the fund. Our department is an implementer at front line. We plan our activity at the beginning of the budget year and submit to the GEQIP-focal persons. However, the budget plan is revised 2 or 3 times, without awareness of the implementing departments. We have no information about the revised budget. All directorates have their own budget plan at hand, but they do not have the revised budget. This will be challenging to implement as per the plan.

Others reported the failure of the GEQIP-E finance strategy to motivate agents (implementers). They argued that the per-dim allowed for Addis Ababa is very low, “only 125 birr per day while for other cities, it is 450 birr. We cannot provide training in Addis Ababa with this amount of per dim”. Regions get incentives for extraordinary results in certain milestones in their regions. Schools also get an award of Birr 30,000 for increasing the survival rate of Grade 5 students. The most serious criticism of GEQIP-E’s financing strategy, PfR, is stated as:

The problem is that the funds are released when you do a productive job without adequate budget to start with. The question is, how do you achieve that? How do you do that? If the budget were released first, meaningful work could be done. The government is slowing down the budget. As a result, it is impossible to complete the project within the stipulated time frame. Therefore, results-oriented financing can be good only when an adequate start-up funding is allocated. It could have been more successful if the ministry

had planned it and said, "If you do this, I will give this to you as an incentive" - because the ministry is familiar with the financial need to carry out the work effectively. As I have seen, nowadays people only work so that they do not miss out on the prize money. They do not sincerely believe that it would benefit their country. Problems on planning can be fixed by reviewing the plan repeatedly, but this does not appear to be the case in many institutes.

Donors acknowledge the presence of a gap in alignment between activities and the budget that demands re-planning. They have also acknowledged that they should focus on results rather than the activities (DLIs and DLRs), focusing on the bigger picture rather than what individuals do. One donor representative said, "The cash flow is not planned properly. Some of the targets have been pushed; some of the targets have been missed; so the government did not get the money". The donor argued that prioritization is critical. He added: "There is an issue of prioritization, for instance, spending three million and getting 12 million on specific targets that would be obvious but some officials choose to finance activities that are politically more feasible than this leading to either delaying or results missing the target".

However, none of the finances are related to learning outcomes. They have much to do with either inputs or enrolments. One donor said

We cannot talk about quality (learning outcomes) where schools are fully destroyed. Our priority is school reopening. So the implication could be we allocate some of the resources into mitigating the impact of the conflict.

The money is linked to intermediate results and not to Key Performance Indicators (KPIs), he argued. He added that some of the KPIs are either too risky or too difficult to be linked to financing. In some cases, KPIs and DLIs could be the same but not in others. The DLIs/DLRs related to learning outcomes are (1) Increasing reading skills of Grade 1 and Grade

2 in their mother tongue language; (2) Improving Math and English knowledge and skills of Grade 7 and Grade 8 to be assessed by Early Grade Reading Assessment (EGRA) and National Learning Assessment (NLA). It is the main area GEQIP-E is working on after the review. The National Examinations and Assessment Service (NEAS) has, however, reported that learning outcomes are not increasing yet. A donor has also reported that USD 130 million out of the USD 400 million is allocated to quality of education and the rest to equity and efficiency. Although the donor seems to imply sufficiency from the tone of his speech, relative to equity and efficiency, the quality of education seems to be less funded. Hence, according to the data and analysis GEQIP-E represents finance-delegation incoherence.

Information-Delegation Incoherence

In the previous analysis, we have found finance-delegation incoherence in the education system of the country. In this analysis, we will explore information-delegation coherence/incoherence. We look for an answer to the question; does the information flow in the GEQIP-E system serve the purpose of learning outcomes, of the delegation? We will examine the information flows across all actors - donors, the World Bank, MOF, MOE, CSA, REB, WEO and schools.

One of the Ethiopian RISE Country Studies demonstrated that lower administrative levels are the least informed compared to the upper levels regarding the nature and modalities of GEQIP-E (Yorke, L. et al, 2022). The cascade method of information flow from the Federal down to the local disadvantages the local schools (p. 1031). A School Improvement Program (SIP) coordinator from one Town Education Office (TEO) said that there is an information gap at all levels of the town. The new staff, due to high levels of turnover, demands continuous training. He added:

The major gap is awareness problem. The school leaders do not have adequate information as to what PfR is. Even we cannot help the schools to the expected level as we do not have better information. Because of this I am not confident enough to say that the program has achieved the desired results.

The research participant believed that sufficient training should have been given to school principals, supervisors and education experts. "Calling a single person to the Education Bureau and conveying simple messages is a common practice, but not adequate", he added. According to many stakeholders educational leader turnover is another problem. The newly appointed leaders come unaware of the program. Some gaps are likely to happen until the newly appointed school leaders get the information.

Regarding data, the stakeholders acknowledge that there is a well-structured monitoring and evaluation system at each level. However, there is a gap in data collection, storage and sharing to the required level. According to them, communication between Woreda, Region and Federal partners needs to be improved through a proper data management system.

The interview data suggest that most monitoring was aligned with the existing MOE administrative data, Education Management Information System (EMIS). The EMIS data is generated at schools, Woredas, Regions and MOE. According to donors, this implies many transactions and is liable to quality compromise. The system can also encourage intentional manipulation of data because enrolment is associated with school grants. It could also be linked to the performance evaluation of the school leaders. There is at least some room for that.

Data not monitored by EMIS are captured by sample surveys (for instance textbook distribution and utilization; and school grants spent on teaching and learning). Training programs like O-class, and teacher

training on Continuous Classroom Assessment (CCA) are reported by regions. Concerning the DLIs, MOE compiles the report from different sources, EMIS, reports of book utilization as well as some surveys and Central Statistics Agency (CSA) verification reports. CSA is a third-party verifier to confirm the accuracy of the data. Due to the sustained data accuracy challenge in the Ethiopian educational system, however, additional financing is proposed by donors for the digitization of EMIS data collection system. MOE is planning to digitize the data of secondary schools by next year. Discrepancies between what is reported and what is verified by CSA have been commonplace. For instance, a donor reported, "We have lowered the achievement reported by MOE based on the findings of CSA".

The data on information flow, surveys, and EMIS suggest poor quality suggesting incoherence with learning outcomes. Moreover, EMIS and the surveys are characterized by quantitative data that do not involve data related to learning outcomes. Most of the data are about the planned DLIs that focus on measuring performed activities. The quality of the data is exposed to potential manipulations and compromises. It is then safe to conclude that information in GEQIP-E represents a system of information-delegation (learning outcomes) incoherence.

Motivation-Delegation Incoherence

Both intrinsic and extrinsic motivations are considered in GEQIP-E implementation process. PfR is intended to serve the purpose of motivating implementers to achieve the results of GEQIP-E as planned in the DLIs and DLRs. But implementers had varying perspectives about the role PfR in motivating performance. One REB official said GEQIP-E motivates performance and encourages competition among regions because you get the funds based on your performance, unlike the former GEQIP system in which the budget was halted when one region failed to submit some documents. Some regions were punished because of other regions. "Thanks to the GEQIP-E structure such a trend is no more applicable", said the official. The program initiated competition and

created a can-do-it mentality”, said another official. One regional state official describes how PfR motivates GEQIP-E implementers:

I believe that the program has motivated the implementers. GEQIP-E follows the principle of reinforcement theory. It says you will get this amount of fund, if you accomplish such type of activity”. The fund is used purely for academic purposes. For example it promises, “if you print and distribute this (much) textbooks to the schools, you will get this (much) dollars”. To earn that much, one has to accomplish the plan. Because of this every implementer is committed to accomplish the plan and get the next fund.

A donor says there are no other incentives if the strategy, PfR is not used. Implementers and the government are motivated to deliver on the agreed-upon milestones. He asserts, “In Ethiopia, where we have plausible policies and strategies but we do not often see them effectively implemented because the level of accountability of the government to the child (politics) is unknown. In such circumstances, I would say PfR is the best instrument to push to incentivize the government to deliver on certain milestones”.

A regional officer said school grants are very critical to schools, “had it not been for the school grant schools could have been closed. They don’t have funds for their day-to-day expenditures”. Normally, government schools purchase the materials needed for the school by the budget given to them as a school grant. They don’t therefore afford not to implement GEQIP-E activities. Schools are also motivated by what is called the Performance-Based School Award (PBSA). An award of Birr, 30,000 is granted to every school that achieves the best score in maximization of the survival rate and minimization of the dropout rate of Grade 5 students. Regions get incentives for achieving extraordinary results in certain milestones in their respective regions.

Stakeholders also reported about intrinsic motivations such as patriotism, ownership and commitments. For instance, they argued that the CCA training of teachers motivates teachers to teach the children with commitment and with all their time on task. An official from MOE said that dedication and commitment should be used as a method of motivation. He argued that the method of motivation (financial reward) which GEQIP-E uses is wrong. Another stakeholder was critical of the idea of commitment as a motivator, "Nowadays people only work so that they don't miss on the prize money. They don't sincerely believe that it would benefit their country". Although ownership and commitments are expected to motivate agents of GEQIP-E, it is not however clear the extent to which these are sufficient motivators.

We have seen that GEQIP-E has incorporated some sources of motivation in its design and implementation such as PfR and awards to schools and regions. Almost all incentives and sources of motivation are linked to enrolment and activities that do not have anything to do with learning outcomes. The CCA (Continuous Classroom Assessment) teacher training at the school level in the form of peer learning may serve as a motivation for quality of education. It may develop teacher competence. But we are not sure how effectively these teachers teach and we are not sure how much learning gains could be achieved. We can therefore clearly see incoherence between motivation and delegation. No data was observed in the stakeholder interviews that suggest the presence of incentives which are coherent with learning outcomes. Almost all incentives and motivators were indicators of either inputs or enrolments. Much was not observed to motivate the delegation, and learning outcomes, suggesting motivation-delegation incoherence.

Support-Delegation Incoherence

Support relates to the preparation and assistance that the principal provides to the agent to complete the task. In the case of GEQIP-E, support can relate to policies, strategies, and capacity-building opportunities that the implementers of GEQIP-E get from their respective

principals; MOE to REBs, REBs to WEOs and WEO to frontline actors, teachers and school principals. It relates to the support agents receive in the compact and management relationships of accountability. Politics and voice relationships of accountability are excluded from the present GEQIP-E data analysis due to the absence of data related to teachers, students and parents.

A very important issue of support to GEQIP-E implementers is preparation. We have seen that important implementers such as the schools, WEO experts and even REB officials and professionals rarely participated in the design process of GEQIP-E (Yorke, et al 2022). These actors in the current interview reported that they were only once summoned to Addis Ababa to attend a short orientation. Thus an important design element of accountability, support was not coherent with learning outcomes.

We have seen that bank transfers, from the World Bank to REBs, from WEOs to schools take a lot of time suggesting support incoherence, an import factor of principals to facilitate transactions so that the agents can do their work with minimum constraints.

Another unfavourable context of GEQIP-E is that the knowledge of agents (Regional actors, Woredas and schools) was low compared to their principals, donors and MOE. The principals either at the compact or management level, did not sufficiently clarify what they wanted from the agents as outcomes. Moreover, the principal did not have a good assessment instrument for observing the performance of their agents. But we have seen elsewhere in this paper that data generated by the GEQIP-E system is less reliable. Data generated with yes or no answers (quantitative as in the EMIS) is also less informative. Moreover, stakeholders reported that data manipulations compromise the quality of evidence (school principals are evaluated based on enrolment and grade attainments) which could have been important for informing agents and principals alike, compromising the support system of teachers and principals.

The capacity of implementers, inspectors, managers and data analysts is also much to be desired. The principals did not develop the capacities of GEQIP-E agents to facilitate their performance for achieving the desired results. Girls' clubs and Inclusive Education Resource Centers (IERC) could be good teacher support systems; yet, these only facilitated schooling activities rather than learning outcomes.

GEQIP-E principals such as the World Bank and MOE have provided weak agent support systems, creating a less favorable context for agents to achieve the milestones set by the principals. What we observe from the stakeholder data is incoherence between support and learning outcomes (or the delegation). Stakeholders believe that the environment in which GEQIP-E operates suffers from a lack of accountability. For instance, one donor said:

Accountability in the GEQIP-E system is difficult when several departments contribute to a result. When the result is not achieved no body is held accountable. When the learning outcomes go down, there is no specific unit (agent) to be made accountable. When results are achieved, however, everybody is happy to claim that 'we did this and we did that'. When results are not achieved there is nobody to blame.

We have seen that Lant Pritchett's accountability framework shows a vertical relationship of actors (a relationship of accountability) with well-defined roles and relationships of accountability but the GEQIP-E implementation framework of actors and their relationships as shown in Figure 2 is much more complicated suggesting several lines of horizontal relationships that in turn demand cooperation and collaboration rather than accountability. For instance, in MOE and REBs, there are three or four directorates involved in the implementation of GEQIP-E. How would you know the effect of each actor in the context of a horizontal relationship? Of course, in this case, the system seems to rely on values, commitments, dedication and ownership rather than motivation and accountability. We do not however know how the extent to which human

capital exists in the Ethiopian education system. We can therefore safely conclude the absence of support-delegation coherence in GEQIP-E implementation. Teacher training supports such as CCA were prevalent but insignificant as they were limited to one-or-two-day observations by inspectors and applied only to O-class teachers.

Incoherence across different relationships of accountability

Relationships of accountability relates to how actors that play different roles in an organization perform in their roles to achieve the objectives of the organization. Their performance is grounded in the availability of resources, motivations, objectives and capacities. Relationship of accountability in GEQIP-E refers to relationships among donors, MOE, REBs, WEOs and schools. There are also other actors such as the Ministry of Finance (MOF) and Central Statistics Agency (CSA) operating horizontally (See Figure 2) to implement GEQIP-E. The accountability relationship is complicated because of the presence of horizontal actors, such as different directors in MOE and REBs. The purpose here is to explore the differences among these actors with regard to any of the different elements of accountability, such as delegation, information, motivation, finance and support.

We have seen in several ways that information is not shared equally between donors, the federal government and regions (including Woredas and schools). This is a good example of incoherence across relationships of accountability. Schools and regions have reported an information deficit regarding the design and implementation of GEQIP-E. In fact, REBs and WEOs have reported GEQIP-E was designed and planned by the World Bank and MOE without their participation. They have invariably expressed limited knowledge about PfR, DLIs and DLRs. Donors in turn complained that schools use school grants for other purposes. One can therefore note here the lack of alignment between activities and the budget. In fact, there is much incoherence between designers and implementers regarding the meaning of DLIs/DLRs and

targets. The same donor reports school actors' low understanding of PfR.

There is a general understanding, which takes for granted that people understand results-based financing, but we need to do this over and over again because of the turnover and the way they used to do this. What they used to do was list activities, cost them as per the budget and execute without caring for the results that much. That was the norm and people tend to go back to the old way of doing things; yes, they know the basic concept that they need the results to get financed. But it is not clearly understood.

According to the donor, school actors have heard or read PfR, but they lack a deep understanding of its meaning acknowledging information discrepancy between schools and donors. The fact that implementers neither participated in the planning nor received sufficient training brought about the difficulty of implementing GEQIP-E.

One Regional Office expert reports:

Preferably, GEQIP-E initiators should have planned to work closely with front line implementers. There should be budget to involve these frontline implementers. If zonal and district level experts do not have information, they cannot be actively involved in the implementation. Sometimes, we offer training for zonal officers with few budgets we have. We had experienced serious budget shortage to train experts from district level, who are at front line on implementation. Experts at district level might not be informed about each activity.

Actors at a management level of accountability relationships (teachers and school principals) did not capture the meaning of restructuring GEQIP-E. They gave wrong answers to the meaning of "restructuring" such as result-based financing and organizational structures. Of course,

restructuring of GEQIP-E refers to lowering down of the targets of certain DLIs and DLRs and even reducing the number of these DLIs. It also includes the extension of GEQIP-E end period to 2023.

Finance incoherence in GEQIP-E between schools, MOEs and REBs is also reported by stakeholders. The strong argument is that all activities are carried out in schools but schools receive only school grants. They claim that schools must have enough resources to achieve results. A regional officer reports how he complained about the budget shortage:

To solve this problem, first we tell to GEQIP budget delegate at this Office. Second, as a team, we went to Ministry of Education to find solution. The officials told us that they cannot give us more budget as they said there is budget shortage at national level. Rather, they advised us to prioritize and cover all the activities we had planned. In Phase One, there had been budget allocation for CRC level training. In the Phase Two, however, no budget was released for CRC level training. Such kind of budget shortage becomes major challenge for implementation.

Contrary to donors who believe that funds are disbursed on time, Regional and Woreda actors complained of delays in budget release. They asserted that this is one of the major factors that affect implementation. "Activity-based budget is planned ahead, but the fund is not disbursed on time from the funder or Ministry of Education", said one regional stakeholder.

We have previously observed that the Ethiopian education system as demonstrated by the case of GEQIP-E represents the prevalence of coherence between principals and agents (donors and MOE; MOE and REBs; REBs and WEOs and schools) for the purpose of schooling. The system however is consistently incoherent for the purpose of learning outcomes, the delegation. The evidence, therefore, suggests the prevalence of incoherence across different relationships of

accountability (for the purpose of learning outcomes) in the Ethiopian educational system.

Conclusion

The GEQIP-E interview data has demonstrated that the Ethiopian education system, by and large, is coherent for schooling. It is however incoherent for learning outcomes. The system stands mainly for enrolment (access) although the GEQIP-E plan had three objectives--quality, equity and efficiency. The data has clearly shown that its equity objective was intended to increase the number of female students as well as students with disability who enrol in schools. GEQIP-E's equity focus was not translated to equitable learning but to equitable schooling. Most DLIs/ DLRs of GEQIP-E were educational inputs (proximate determinants) and had little impact on learning outcomes because the system of Ethiopian education is not coherent for learning outcomes. Agents viewed their interests as being met by increasing the number of students in their respective schools, Woredas or regions. Hence, they were more accountable to their respective principals for schooling and not for learning outcomes. They have successfully increased the number of students who enroll in schools including girls and students with disabilities. The test scores in literacy, numeracy and English language proficiency have not increased following the intervention. Students' knowledge and skill results fell below the milestones and sometimes below the baseline.

Analysis of the data using Lant Pritchett's framework of education system framework confirmed two types of system incoherence; (1) incoherence between design elements of accountability; and (2) incoherence across different relationships of accountability. The third type of incoherence, incoherence between two relationships of accountability was not included in this study because of the absence of data from school principals, teachers, students and parents. Most importantly, schools differed from donors and MOE with respect to

information (knowledge) and perspectives in financing GEQIP-E activities.

According to Lant Pritchett, systems of education work (for learning outcomes) when there is an adequate flow of accountability in the system. We have seen from the interview data that nobody is held accountable for failure, albeit claims by many when results are achieved.

The Ethiopian education system actually works well for schooling—increasing enrolment, reducing the dropout rate, supplying textbooks, training teachers, establishing resource centers and creating girls' clubs - probably assuming that those all would change the knowledge, skills and attitudes of students (achieve academic competence). The next question is why all these interventions don't have much influence on learning outcomes. Lant Pritchett's answer is if the system is not working for the purpose of learning outcomes, interventions will have limited effects. If there is any break in the feedback loop of the accountability system, implementation of interventions fails to work.

The Way Forward

Hitherto, educational research had focused on analyzing inputs and processes and how they affect outcomes of education paying little attention to the context of how these inputs and processes are implemented. The education-systems perspective is a new research approach that has emerged from the new development theory by Daron Acemoglu and James A. Robinson, 'Why Nations Fail' (2012). This theory establishes that good systems (political economy) determine the economic or social development of any given country, implying the need for systems approach in research. More research therefore has to be carried out on how the education system determines learning and national development in Ethiopia.

References

- Acemoglu, D. and Robinson J.A. (2012). *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York: Crown Business.
- Carvalho, S. et.al (2022). Whose Voice Counts? Examining government-donor negotiations in the design of Ethiopian large-scale education reforms for equitable learning. *Development Policy Review* 40: (5) 2022.
- DiSesta, A. et.al (2004). Coherence versus Fragmentation in the Development of the Concept of Force. *Cognitive Science*. 28 (2004) 843-900
- Fullan, M. and Quinn, J (2016). *Coherence: The Right Drivers in Action for School Districts and Systems*. Thousand Oaks. CA: Corwin.
- Glewwe, P. and Muralidharan, K. (2015). Improving School Education Outcomes in Developing Countries. *RISE Working Paper* 15/01. October 2015
- The Glossary of Education Reform (2022). *Coherent Curriculum*. [Edglossary.org/Coherent-Curriculum](https://edglossary.org/Coherent-Curriculum).
- Kaffenberger, M. and Spivack, M. (2022). System Coherence for Learning: Applications of the RISE Education System Framework. *RISE Working Paper*. 22/086 January 2022
- Malone, H.J., et al (2018). *Future Directions of Educational Change: Social Justice, Professional Capital, and System Change*. (Ed.).
- MOE (2021). *Early Grade Reading Assessment*. READ.

- Pritchett, L. (2015). *Creating Education Systems Coherent for Learning Outcomes*. RISE Working Paper Series
- RISE (2017). *Research on Improving Systems of Education: RISE Conceptual Framework*. University of Cambridge.
- Roadmap (2016). *Policy Directions and Major Shifts in Ethiopian Education and Training Systems: Roadmap Development*. MOE: Addis Ababa.
- Schroeder, E. (2022). *How Coherent is your School District*. Association of Wisconsin School Administrators. (2022).awsamember.click.net/AWSA
- Wang, L. et al (2019). *Strengthening Accountability for Better Learning Outcomes*. World Bank.
- WDR (2004). *World Development Report 2002: Making Services Work for the Poor*. World Bank Report.
- World Bank (2019). *Ethiopian General Education Quality Improvement Program for Equity*. AA: Federal Democratic Republic of Ethiopia.
- York, L. et.al (2022). Is the Program for Results Approach Fit for Purpose? Evidence from large –scale education reform in Ethiopia. *Third World Quarterly*. 43 (5). 1016-1037. [Coherencehub.org/what-is-coherence](https://coherencehub.org/what-is-coherence).