Ethiopian Journal of Behavioral Studies, 2020, 3 (1), 1 – 25

Program Implementation in Ethiopia: A Framework for Assessing Implementation Fidelity

Belay Tefera*, Solomon Areaya** and Daniel Tefera***

Abstract: *Implementation science is only emerging in social, behavioral and educational projects and this is more so in Ethiopia. Hence, while project effectiveness is fundamentally a function of implementation fidelity, it has been customary in Ethiopia to take a "black-box approach" in which project effectiveness has only been gauged against project outcomes; while in effect the process accounts for much of the outcome. It was envisaged that this could relate to lack of a framework that can be employed for such purposes in the Ethiopian setting. Therefore, this paper attempted to, first and foremost, underscore the gravity of implementation problem in Ethiopia at large. Then, it delineated a framework of implementation fidelity that was assumed to fill-in this missing component of project effectiveness by guiding how assessment fidelity can be conducted in contexts like Ethiopia. Finally, it attempted to draw some implications for future work.*

Keywords*: Implementation fidelity, project evaluation, adherence, intervention complexity, facilitation strategies.*

* *Professor of Psychology, School of Psychology, CEBS, AAU, Email: belaytefera@yahoo.com*

** *Associate Professor, Department of Science and Mathematics Education, CEBS, AAU, Email:solomonareaya@yahoo.com*

*** *Assistant Professor, School of Psychology, CEBS, AAU, Email:dtefera@gmail.com*

Introduction

The last three decades in Ethiopia seem to be an era of legislative and policy making with a plethora of documents produced; apparently making the country a basket of policies than breads now. However, the zeal of implementation doesn't seem as strong as that of formulation of these legislative, policy and programmatic interventions. Experience shows that it is not only that implementation has been far from satisfactory but also that the issue was not even articulated particularly among the academia so that attempts could be made to conceptualize the problem and come up with theoretical formulations. In fact, debates among political parties are commonplace about "design" versus "implementation" issues while evaluating effectiveness of government policies, programs, projects, and plans. Apart from such politicized debates of the problem, very limited scholarship has been pursued to learn about the issue and, hence, our understanding of implementation concerns, associated factors and way forward is very limited. However, some individual-level concerns tend to show the gravity of this implementation problem in Ethiopia. For example, in a conference held on National Youth Seminar in 2019 at Ras Amba Hotel, a paper presenter lamented in his speech about this concern; thereby overriding some audience by surprise and others with laughter. According to this speaker, "if at all revolution has to come into this country any more, which in fact isn't at all my wish as a person who amply witnessed the plight this country went through in times of revolutions, it has to be a revolution of 'implementation." We shall shortly see how revolutionizing the landscape of 'implementation' issues is an appropriate nomenclature in Ethiopia; yet implementation scholarship suggests that this is a global concern as well.

Research evidences suggest that innovations are seldom implemented as intended" (Berman and McLaughlin, cited in Dusenbury, Brannigan, Falco & Hansen, 2003) particularly in educational settings. When new social, emotional, and behavioral programs or practices are adopted in schools, only 25 to 50% are likely to be implemented with sufficient fidelity to bring about their intended intervention effects (Gottfredson & Gottfredson, 2002). Only one in three efforts that install new programs is successful (Damschroder et al., 2009). In 2011, a fidelity study from the U.S. Department of Education found that less than half (44.3%) of research-based prevention programs examined met minimal fidelity standards and drew the conclusion that "a tremendous amount of resources, in classroom time for prevention programming alone, is being allocated to school-based prevention efforts that either lack empirical support for their effectiveness or are implemented in ways that diminish the desired effect" (U.S. Department of Education, 2011). Such failures could basically relate to failures in properly integrating implementation fidelity measures at the

planning stage that would help not only confronting unrealistic aims and tame program ambitious, but also provide a clear blueprint that simplifies and motivates program implementation.

Despite the possibilities above that programs would fail to be implemented as intended, program effectiveness evaluations usually disregard assessing what has happened in the process of program implementation and predominantly focus on assessing program impacts and link this impact only to program effectiveness. However, implementation data are needed in order to make valid inferences about program effectiveness and avoid what is called a 'black-box' approach and associated Type III error. Evaluating impact and drawing inference about program effectiveness is a common 'black box' approach (Hulscher, Laurant, & Grol, 2003) that may lead to a Type III error of erroneously concluding that program impact was due to attributes of the particular intervention; while in reality the problem is failure to implement a program as planned (Dobson & Singer, 2005; Sánchez et al., 2007); yet poor implementation is likely to result in a loss of program effectiveness (Bellg et al., 2004; Elliott & Mihalic, 2004).

To avoid a type III error, there is a need for a framework that is clear, adequate, feasible and relevant enough to provide definitions, strategies and approaches of assessing implementation fidelity prior to initiation of an intervention study or dissemination efforts (Breitenstein et al., 2010). Hence, this paper attempts to construct one such framework that is relevant for social, behavioral and educational program implementations in the Ethiopian setting. As such, the paper retains objectives that are twofold: provide a bird's eye-view of the general implementation concerns in Ethiopia with a little more focus on the education sector, and, then, formulate a conceptual framework for gauging implementation fidelity that would be applicable for assessing social, behavioral and educational program implementation in Ethiopia.

Approaches

The paper is based on a critical review of implementation research literature generated through Google search using terms like 'implementation research,' 'implementation fidelity.' 'Implementation science' and 'program implementation' as search engines. Although lots of literatures were generated, over a half of them couldn't allow free access, and, therefore, were forcibly left out. This general theme-based search was supported by specific article-based search by consulting the entries of titles included in the reference sections of most recent articles accessed from the general Google search. In an event that an article was extremely useful for our present work but was directly inaccessible for referencing (even its abstract), we borrow quoted ideas from other sources quoting this article and mention this in parenthesis.

We believe that our research is, therefore, incomplete in many ways. Most recent sources might not also be included because of accessibility problem. However, given that the prime purpose of the paper was to develop a framework applicable to situations like Ethiopia, we feel that the missed literature would hardly make a substantive difference in the conceptualization drawn in this paper. As regards Ethiopian literature, many of them were not available online and, therefore, personal information, familiarity, and experiences in the field were of much help securing them. In the sections that follow, we shall deal with Ethiopian literature to understand implementation practices at large first and, then, proceed on to reviewing global perspectives and developments of implementation science.

Program "Implementation" Experiences in Ethiopia: Education Sector in Focus

General implementation concerns: To reiterate what has been said already, 'implementation' in all its facets appears to call for an increasing attention for a transformative and holistic change in Ethiopia. We may draw some evidences consulting Ethiopian experiences in the last few years alone that could range from the top/ national level down to classroom practices. To begin with the Constitution of the country (FDRE, 1995), Proclamation No. 1/1995 has pronounced the coming into effect of the Constitution of the Federal Democratic Republic of Ethiopia. Experience shows, however, that there has never been time in its life span when this Constitution crossed bitter critiques over repeated failures of implementation. In an extreme form, the renowned Ethiopian scholar, Mesfin Woldemariam, lambasted in one of his speeches that this Constitution "doesn't even worth the paper it is published with." Nearly 25 years into effect, the major complaints of opposition parties and citizens alike over a gross violation of constitutional rights has led to a series of riots and violent demonstrations in different regions of the country; that eventually brought the demise of the system thereby initiating a reform process a couple of years ago. In his inaugural speech to the parliament, the present Prime Minister of the Country has officially admitted how abusive and tyrant the system was in imprisoning and torturing tens of thousands of citizens for the simple reason that they voiced a different political opinion.

Of course, Ethiopia has entered into the new millennium with an interesting culture where visions and missions and national growth plans were crafted to inform development agenda for so many years to come. We are almost into the finish line of the second five years' plan. Although achievements of these plans are tremendous, huge gaps were again reported in terms of implementing these apparently overstretched national plans. Inabilities for the ten mega sugar factory projects to come to completion have raised a public discontent and lots of uproar in the parliament few years ago. The five years' Renaissance Dam project

is still staggering for completion in its 10th year now, with only 73% achieved into the plan.

***Policy implementations*:** Grave national implementation concerns are even appalling looking into the status of policy implementations in Ethiopia. Many line ministries have not yet made assessments into the level of implementations of their policies. However, some individual-based assessments and lower-scale office-released reports would help shading light on this matter. For instance, an assessment of the implementation of the Population Policy nearly twenty years after its launching (Assefa, 2016) have shown a lot of achievements; yet the pace of implementation of the policy has been slow and there were areas where much progress was not made and critical challenges encountered. Failure to establish the National Population Council; weak coordination and institutional arrangement due to absence of legally defined structure for implementation, lack of monitoring and evaluation system, absence of a comprehensive population program and financial constraints, among others were the major barriers.

The Social Protection Policy can be considered as another point of discussion. A paper presented in a conference regarding implementation challenges of the Social Protection policy in Ethiopia (2014) has also suggested that although the policy envisions to "create an enabling environment in which Ethiopian citizens have equitable access to all social protection services that will enhance their growth and development", it has lot of implementation gaps in terms of: protecting poor and vulnerable individuals, households, and communities from the adverse effects of shocks and destitution; increasing the scope of social insurance; increasing access to equitable and quality health, education and social welfare services to build human capital, thus breaking the intergenerational transmission of poverty; guaranteeing a minimum level of employment for the long-term unemployed and underemployed; enhancing the social status and progressively realize the social and economic rights of the excluded and marginalized; and ensuring that the different levels of society are taking appropriate responsibility for the implementation of social protection policy etc.

Bezabih (2009) has examined implementation challenges of the Service Delivery Policy of Ethiopia and indicated that implementation of some of the policy statements was questionable and that policy objectives (expected outcomes) were not achieved as desired. There existed policy under-performance because of complex policy requirements, numerous bottlenecks and contextual factors. The major policy implementation challenges identified included: (1) severe capacity limitations (individual as well as institutional); (2) staff dissatisfaction (mainly related to compensation); (3) lack of resources (mainly financial) for policy execution; (4) inadequate policy

communication and discussion with the civil servants about the policy; and (5) suspicious civil servants about the Policy and its implementation.

***Education sector in perspective*:** To begin with the policy formulation itself, one of the problems could relate to policy borrowing. Although there is nothing wrong in borrowing evidence-based policies from other similar nations, the borrowing process has to be professionally gauged. In this regard, Firehiwot (2014) analyzes the policy borrowing practices in Ethiopian higher education and suggests that the process of borrowing could be incomplete and substandard as it may lack, among others, a general framework that states expected profiles, proper integration of the policy with other policies, appropriate ways to fulfill desired logical requirements and suitable conditions, and an action and experience-oriented adaption system capable of winning the commitment of implementers. These problems may even apply to local policy formulation practices that lacked lots of implementation currency because of falling short of the required level of consultations, adaptation, and try outs that enable formulation of evidence-based policies.

Although there is no much evidence about extent of borrowing, the Ministry of Education has already put into effect two policies at different times; the Education and training policy (MoE 1994) and the Early Childhood Care and Education Policy that was developed 15 years later (MoE, 2010). A report issued by the Ministry in 2002 to inform stakeholders about the implementation of the education and training policy (MoE, 2002) underscored a lot of factors that would fetter implementation of the policy. It was said that the full implementation of the "new" policy would bring significant positive changes to the country and the society as a whole. However, it was underscored that many challenges need to be successfully met before this goal will be realized. Some of these challenges were: the ethical standards of teachers and students, capability, resources, and finance and so on as well as the readiness of those in charge of implementing the policy. It was said that the policy could be implemented only if the larger society (students, teachers, and parents) would appreciate the policy's usefulness and work in unison with enthusiasm. Students' eagerness to learn and teachers' heartfelt endorsement of the strategy were indicated as critical for the policy to succeed. It was then suggested that implementing authorities at every level have to explain the strategy to teachers, students and the population as a whole if the policy is to be successfully implemented. This early warning didn't seem to awaken actors; thus seriously hampering its implementation as prophesized in this report.

In the same way, a feasibility study was conducted for the implementation of Early Childhood Care and Education Policy shortly after its formulation in 2010 (Britto and et al., 2012). Findings of

this study have indicated that there were multiple challenges in implementing the curriculum with respect to private and non-government owned KGs that had different objectives and procedures. Field observations suggested that the curriculum was not always followed by preschools of the private, or NGO / faith-based organizations. Even though the Teachers Development Program Directorate is responsible to training on curriculum use and implementation, there were no supervisors to ensure delivery and implementation of the preschool curriculum. Therefore, there were no explicit mechanisms to conduct process evaluations or ways to strengthen the implementation of the curriculum based on prior experiences. The country has developed a comprehensive preschool curriculum and the materials were well designed. However, there were bottlenecks in the implementation of the curriculum and dissemination of learning materials. A need for strengthening training, supervision and dissemination of the curriculum was recommended at last.

By way of supporting the two policy-based review reports above, the comprehensive assessment of the situation of education ever made in the country to draw a 15 years national education roadmap has identified lots of implementation problems (curriculum, governance, qualification and morale of the teaching force, facilities and budget etc.) at all levels (preprimary, primary, secondary and tertiary) of the education system (Tirussew et al., 2018). Small-scale individual research investigations on different aspects of the education system have also invariably supported these concerns. For instance, as regards 'curriculum and implementation endeavors', the professional integrity of both the development processes and implementation was brought to question (Lemlem cited in Solomon, 2019; Yayeh, 2017; Solomon, 2019). Concerns addressed were lack of professionalism in curriculum development at all levels and lots of implementation concerns in the education system that include organization and administration problems in the provision of quality education, qualification and professional profile of the teaching and administrative staff, concerns with pedagogical practices and the evaluation system, and undue political control of the education system that deprives personnel the professional right to exercise academic freedom.

The design and implementation of modular curriculum in higher education was also found to bear different problems including, but not limited to, teachers' lack of knowledge and experience in structuring and implementing the competence-based modularization program (Ababau et al., 2017; Hailu, In Press; Bineyam, 2014; Gizat, 2014; Abatihun, 2019), the block teaching approach that was inappropriately fused to the curriculum; thus doing a de-service to students not ready for it (Hailu, In Press), and also a cooperative learning approach that was proposed in the curriculum but not adequately practiced

(Manaye, 2017) possibly because of perceived politicization of the approach.

Classroom assessment for learning is another important area of concern. The Education and Training policy (MoE, 1994) has clearly stipulated that continuous assessment shall be put into effect across all classrooms in the country to ascertain the formation of an all rounded profile of students at all levels, but, as usual, with limited implementation. According to a review of literature on classroom assessments in Sub-Saharan Africa (SSA) and South Asia (Browne, 2016), it was learned that continuous assessment (CA) in policy documents is commonly available; but teachers did not use these assessments in the classrooms; mainly because there was little institutional support for CA, few example materials, lack of teachers' understanding of the purpose of CA, thus, continuing to teach in same top-down manner. According to Browne (2016), "Most schooling systems in developing countries have a crippling emphasis on summative exams, and teachers often end up 'teaching to the test' whether they want to or not. Parental pressure plays some part in teaching styles, as teachers are under pressure to show parents that they are preparing their children to pass important exams which open the door to the next level of education. Teacher training chronically underprepares teachers for CA; in some cases not giving any training and in others only explaining how to fill in the government mandated forms". Implementation practices of CA in Ethiopia seem to corroborate Browne's views as it can be learned from small scale investigations suggesting that continuous assessment has not been properly implemented (Abiy, 2013; Aytaged, 2013; Sintayehu, 2016; Yiheyis & Getachew, 2014) in different educational settings.

Anytime quality becomes at stake, it is naturally the maker who is to hold accountable for. If, in this case, the Ministry of Education needs to change course, it has to seriously address the teacher training program so that there is a system with clear identity that can be enforced with full capacity during teacher preparation. This is because teacher training system in Ethiopia is a sector most affected by frequent changes; in fact becoming most vulnerable to premature change with changes in authorities of the Ministry of Education. There was a 'content-method' split approach in the early 2000s and before, which was replaced by an integrated approach with the TESO program from around 2000s to 2010. Then 'Add-On' program took shape from 2010 to present in which content is learned first then a one year teacher education postgraduate program is added onto it after graduation; and now the trend seems to sway back to integration. Of course, global influences coupled with lack of focus, orientation, and social participation in teacher education could be added reasons (Kedir, 2007; Semela, 2017). If at all there is something that these frequent changes suggest, it is simply that there has been

absence of any seriously implemented teacher education program.

Continuous Professional Development (CPD) was a strategy employed by the Ministry to augment this formal teacher education program, but, again, with weary implementation. Evidences suggest that learning activities were poorly practiced by teachers during CPD training and that what it was aspired to happen in classroom by lunching the CPD program didn't happen, remained ambitious, and, hence, very little of the intended objectives of the CPD were realized both at school and classroom levels as a result of insufficient implementation of CPD (Tareke & Tefera, 2018).

Education sector outcomes and implications: Perhaps a brief look into the outcomes of the saga of cries for implementation may be needed. Making reference to one of the publications of the statistical abstracts of the education sector of Ethiopia, it can be understood that there was a systematic increase in almost all measures of the sub-sectors over the last five years. In particular, enrolment has grown at average annual rates of 15.5% for higher education-undergraduate, 32.6% for higher education-postgraduate, 62.0% for pre-primary, 2.9% for primary and 4.6% for secondary education. Quality indicators (teacher qualification, student/ textbook ratio, student/teacher ratio, and grade completion rate) have also improved. Efficiency indicators suggest decline in dropout rate; though grade repetition has somehow doubled understandably because schools might have come stringent in their promotion policy just to quell the noise over quality. Equity indicators in terms Gender Parity Index and enrollment in emerging regions suggested significant improvements (MoE, 2012/13). However, the equity measure in terms of inclusion of children with special needs was of very little success. Although children with disabilities have an equal right for access to education and the policy was also good enough to recognize this point and developed a strategy of implementation (MoE, 2006), evidences indicate that enrollment of this children was alarmingly low. It was said that proper realization of inclusion of children with special needs is very unlikely even in the time to come unless there is, on the one hand, a need to tame ambitions of the principle of "education for all" to the "education for some" so that children would access education through any available educational modality (may not necessarily be pure inclusive approach type). And, on the other hand, there is also a need to reverse the top-down inclusive approach (passed from international and national call, slogan, and approach) to a bottom-up initiative in which a more innovative, culturally sensitive, cost-effective, and community resource-based inclusive model school is launched, which can then be successively refined, and gradually scaled up (Belay, Fantahun & Missayie, 2016).

Educational outcomes would help unmasking reality that was hidden in the numbers above. That is, despite the encouraging progress in quality and other indicators, outcome indicators in terms of student learning and achievement are not encouraging because student learning remains low, drop out and repetition rates are still high, and, hence, the current educational inputs are not being effectively converted into educational gain. These concerns of quality appear to be critically important particularly in the formative years where foundations are to be laid down for lifelong learning. In this connection, National Learning Assessments as well as others (like early grade reading assessment) have consistently revealed that scores of Ethiopian children were unable to properly read to learn because they didn't learn to read at the time first cycle primary school is completed.

Different actors and development partners have been joining hands with the government towards addressing the pressing and critical concerns of early grade reading problems through designing programs and projects that help addressing these and other problems in Ethiopia. However, little was done to assess the implementation fidelity of such projects; except, in some limited cases, where program/ project evaluations were done and yet merely to determine program impact. Part of the problem appears that program implementation is a complex process involving a lot of activities whose assessment is indeed a challenge. In this regard, there are few tools available to assist in operationalizing the process and enabling the conduct of assessment in a systematic and efficient manner. Hence, an attempt is made now to conceptualize the issue of 'implementation' and 'implementation fidelity', components of a fidelity assessment, and structural and contextual inputs that give essence to social, behavioral, and educational program implementation in settings like Ethiopia.

Conceptualization of Implementation Fidelity

Progress of humanity is a triumph over a tag-of-war in which advances in instilling new solutions are in constant battle with old ways of doing things. Different innovations, systems of operation, programs, and new ways of doing things emerge to counter existing problems of one kind or another. There are different ways in which these new solutions can be communicated to and put into effect by different concerned groups. Greenhalgh and colleagues (2004) explains three such methods: diffusion ('Letting it Happen'), dissemination ('Helping it Happen'), and implementation ('Making it Happen'). Diffusion is let implementation happen; leave it to agency administrators, practitioners, and policymakers to make use of research findings on their own. It refers to passive, unplanned, and untargeted spread of information or interventions. Dissemination is helping implementation happen in real world settings through, for example, provision of manuals or web sites. Dissemination refers to targeted distribution of

information and intervention materials to a specific audience. Dissemination activities typically focus on improving a practice, knowledge and/ or awareness of a targeted group. These two ways of communication were considered "traditional approaches" (Metz & Bartley, 2012, p. 15) that were insufficient for effective use of innovations (Balas & Boren, 2000; Clancy, 2006), unsuccessful in closing the research-to-practice gap (Greenhalgh et al., 2004), and inadequate to change professional behavior (Lyon, nd). Hence, a better approach (called 'implementation') came into being to effect desirable changes happen (Greenhalgh et al., 2004, p.593). Hence, as opposed to the two traditional approaches, "implementation" sets out to use deliberate strategies to adopt new interventions, and effectively integrate them, and change practice patterns in specific settings (Lyoun, no date). An expert implementation team plays a role in this process of using evidence-based strategies to actively support implementation of a new innovation or initiative (Metz & Bartley, 2012, p.15).

"Implementation" is then one of the methods through which new programs can be communicated to and put into practice in different settings. It is a systematic process requiring stage-appropriate performance of activities for full materialization of the implementation goals (Fixsen & colleagues, 2005; Metz & Bartley, 2012). Fixsen and colleagues (2005) identified four such stages (also elaborated by Metz & Bartly, 2012), that are interconnected but need to be attended seriously: "Exploration Stage" where attempts are made to check if a program meets the community's needs and whether implementation is feasible, "Installation Stage" in which resources are put in place, "Initial Implementation Stage" during which the new program is tried out and lessons taken, and "Full Implementation Stage" in which lessons are incorporated and, then, the program is put into full operation (Metz & Bartly, 2012).

Implementation science has been a growing field globally and there has been limited research on fidelity of implementation in the social sciences (Dusenbury, Brannigan, Falco & Hansen, 2003) even in more recent years; suggesting that more definitions and formulations are yet to come along with those we already have. Some of these definitions include that implementation fidelity is the degree to which 'we do what we say we will do', i.e. the extent to which teachers and other program practitioners implement programs as intended (Dusenbury et al., 2003), teachers or staffs are able to use innovations or instructional practices as intended (Carroll et al., 2007), an innovation is implemented as intended (Hasson, 2010), group leaders deliver the intervention completely and according to protocol" (Breitenstein et al., 2010), and the bridge between a promising idea and the impact on students (Berman and McLaughlin cited in Dusenbury, Brannigan, Falco & Hansen).

Defined in this more or less similar ways, implementation fidelity has been measured in terms of five different but interconnected components: (1) adherence to the program content, (2) dose (the amount of the program delivered), (3) quality of program delivery, (4) participant responsiveness and (5) program differentiation (whether critical features that distinguish the program are present) (Dusenbury, Brannigan, Falco & Hansen, 2003; Dane and Schneider, 1998, Caroll et al., 2007; Hasson, 2010). Dane and Schneider strongly recommended that researchers measure all five dimensions of fidelity in order to provide a comprehensive picture of program integrity (Dane and Schneider, 1998).

With due respect to Carroll and colleagues' (2007) proposed components of implementation fidelity that was considered as the most complete conceptual framework for implementation fidelity (Hasson, 2010) in recent years (for reasons that follow now), we opt to reorganize these components and add some more dimensions that appear quite useful in behavioral, educational and social interventions so characteristic of the Ethiopian context. We re-conceptualize 'implementation fidelity' rather more broadly as adherence to content, quantity, quality, procedure, context, and systems of planned interventions:

- Content adherence: extent of coverage of the contents, performance of proposed activities, and delivery of services promised in the plan (without making alterations, or getting into other unplanned performances).
- Quantity adherence (or exposure): refers to the extent to which quantity of intervention is implemented as planned; this may include the three components proposed earlier: (a) the number of sessions implemented; (b) the length of each session; or (c) the frequency with which program techniques were implemented (Dane & Schneider, 1998).
- Quality adherence: the extent to which practitioners' (i.e., the individuals implementing the intervention) behaviors conform to the intervention protocol (Hogue et al., 2008). The types and levels of behaviors (knowledge, attitudes, motivations and skills) are expected to be specified in the manual of the intervention as well as the mechanisms including how to develop and sustain (select, train, and mentor) the practitioners.
- Procedural adherence: refers to the extent to which general implementation procedures (stages) or specific ones (e.g. adherence to order of activities when this is essential, conducting training sessions consecutively or with an interval of time-massed or distributed training) are strictly observed.
- Contextual adherence: extent to which program adjustments are made to accommodate the specific emerging contexts in the field without this adjustment seriously jeopardizing the content of the intervention.

- System adherence: extent to which the entire system is set in motion; becomes more conscious, self-correcting, self-enriching, and proactive; different phases, parts, and components feed one another and form a complete whole.

No matter how the components of fidelity are defined or patterned, our conceptualization is complete to the extent that these components are linked to implementation drivers (Metz & Bartley, 2012). With respect to this exercise, Carroll and colleagues (2007) took the initiative to propose a framework not only of the five elements mentioned earlier, but unlike all previous attempts, also to clarify and explain the function of each and their relationship to one another (Carroll et al., 2007). They conducted review of previous studies on facilitators and barriers to the diffusion of innovations in organizations and introduced two additional elements into their framework that, to our understanding, are both 'internal factors' (i.e. intervention complexity and facilitation strategies) alone affecting fidelity (Carroll et al., 2007), while Metz & Bartley's (2012) suggested in a different research three other core components or building blocks of external support drivers needed for competent and sustainable service delivery that ultimately ensure high-fidelity and sustainable program implementation (i.e. competency drivers, organization drivers, and leadership drivers). There is a need to integrate these two sets of drivers to fully account for the fidelity phenomenon.

Several authors, including Carroll and colleagues, however, suggested that there is still a need for more multiple components to be measured in order to achieve a comprehensive picture of implementation processes and fidelity (Carroll et al., 2007, 12, Dusenbury et al., 2003; Hasson, 2010). Accordingly, Hasson (2010) attempted to examine the relevance of two additional moderating factors to be included in the framework, namely context and recruitment. While "context" relates to the social systems (such as structures and cultures of organizations and groups, inter-organizational linkages, and historical as well as concurrent events) that affect program implementation "recruitment" refers to procedures that were used to attract potential program participants (Hasson, 2010). Despite the interesting definition of "context", a number of concerns are eminent in the actual mapping and understanding of this Hasson's notion of "context" (see the revised model of Hasson, 2010).

Firstly, this notion of 'context' was narrowly conceptualized as one variable affecting fidelity instead of being referred exactly as in the definition provided above; that is, it is a general framework that structures all other factors as well as the fidelity issue. For instance, the Ethiopian context and experience would entail that there are possibly certain factors embedded in the socio-cultural, economic and political landscape of the

country that may cast its shadows on project implementations in the country irrespective of project type. Hence, our conceptualizations of behavioral, educational, and social project implementations need to capture these broader arrays of settings and contexts than simply enlisting specific factors affecting fidelity.

Secondly, the fact that programs are said to operate within a given socio-cultural, political, and economic landscape implies that for a program implementation to be successful, it needs either to be created from the soil it is to be planted later or be flexibly adjusted to fit into these contexts if borrowed from elsewhere (i.e. both ways a call for evidence-based intervention programs). In the same way, the settings themselves are also required to be responsive to the programs (i.e. a need for monitoring performance and make adjustments on the ground to enable smooth implementation of programs). Lyon (Undated) proposes that there is a bidirectional relationship between settings and programs such that each is required to make some degree of adaption for implementation to be successful (this is what we call in our present case 'ecological/ contextual adherence'). That is, for programs, adaptation is expected to focus on components that are not considered critical to its effectiveness and, for settings, adaptation may focus on changing aspects such as organizational policies, leadership, or infrastructure to ensure successful program implementation.

Third, in as much as program implementation and their enabling/disabling factors operate within a given socio-cultural context, we would arguably say that the socio-cultural systems themselves are the fabrics of a certain historical phenomenon. Hence, time or season of implementation is then an important variable whose effect is invariably interwoven with the implementation course. Urie Bronfenbrenner (1979) has long recognized that the various nested structures that affect individuals' life course do function within a certain chronosystem or socio-historical conditions that refer to the patterning of environmental events and transitions over the life course; or effects created by time or critical periods in development like, for example, disruptive effects of poverty in program implementation may peak in an era of war and dislocation, with effects more negative for one region than for another.

In sum, we then propose an alternative view of conceptualizing for our present purpose where implementation fidelity is (1) viewed in terms of its broader components (enlisted and operationalized earlier), (2) that are structured by those internal (intervention complexity, facilitation strategy) as well as external factors (implementer, organizational and leadership characteristics) (3) that retain dynamic interaction of the program (development, implementation, and evaluation) and (4) context with in a given defined period of time.

Furthermore, we want to view the entire fidelity business within the framework of implementation as a systematic process that unfolds itself overtime or through stages that may include pre - implementation (e.g., when systems are contemplating or exploring a change effort) and continue into a maintenance or sustainment phase (Lyon, No Date); thus requiring stage-appropriate performance of activities for full realization of program goals (Fixsen & colleagues, 2005; Metz & Bartley, 2012). Our revised framework is generally presented in Figure one.

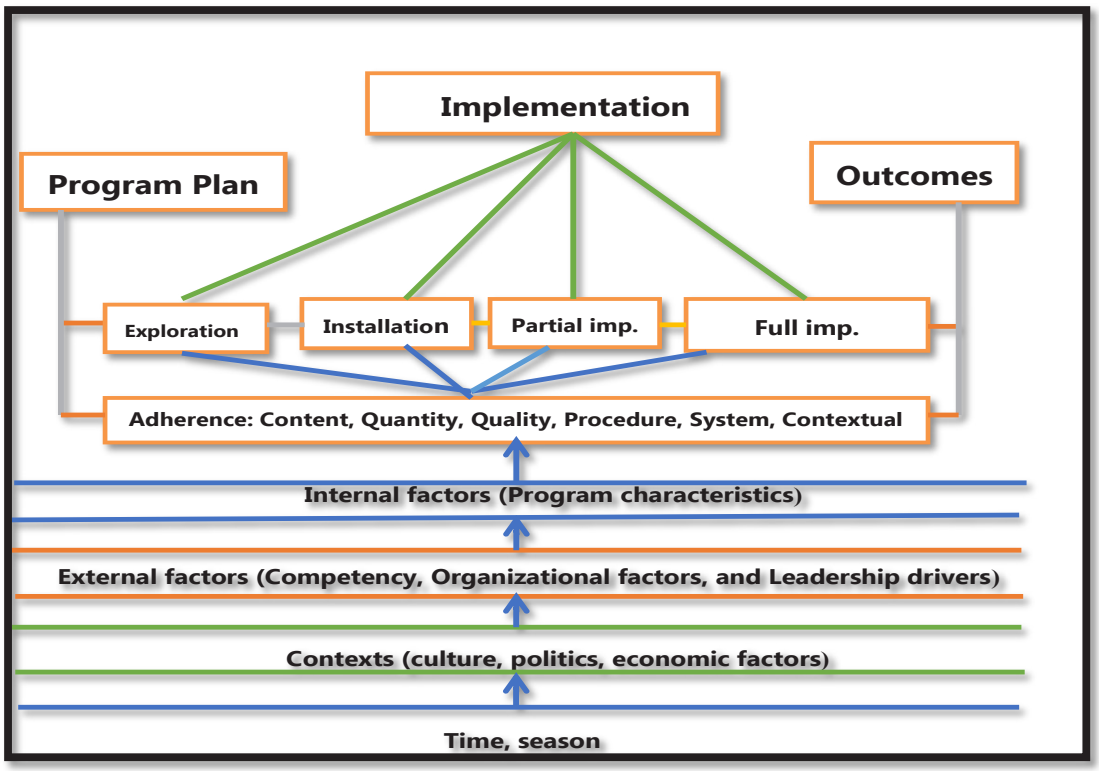

Figure 1: Conceptual Framework of Implementation Fidelity Assessment in the Ethiopian Setting

Finally, we need to take little more space elaborating on the drivers of implementation in the framework not described earlier.

Internal drivers: These are factors with in the program itself that affect program implementation. It is also referred to as "program characteristics". It includes, among others, issues like program relevance, flexibility, and extent to which it is evidence-based. A number of other program characteristics themselves greatly affect implementation success

(Bauman et al., 1991) including extent of clarity of program objectives (Sabatier cited in Peters et al., 2013, p. 2), instructional clarity (Dusenbury et al., 2003) and availability of detail instruction manuals on how to implement the program (Luborsky and DeRubeis, 1984), feasibility (or plan- capacity compatibility or implementability within the given time, resources, conditions) or the extent to which a new treatment or an innovation can be successfully used or carried out within a given agency or setting (Karsh, 2004), whether the program is sufficiently strong or intense, and whether it is easy to administer (Yeaton and Sechrest, 1981). In relation to these program characteristics, Carroll and colleagues (2007) have identified what they called "potential moderators" but now reconsidered as internal factors affecting implementation. These are intervention complexity (if the description of an intervention is simple or complex, detailed or vague) and facilitation strategies (support strategies used both to optimize and to standardize implementation fidelity). Research shows that unlike interventions that are packed to simplify implementation, interventions consisting of many elements that require special skill and that require coordination by many people are less likely to be perceived as effective (Yeaton and Sechrest, 1981).

External drivers: These are factors external to the program affecting the success of its implementation. Different names were used to refer to these sets of factors: Implementation drivers (Metz & Bartley, 2012), influencing factors (Sabatier cited in Peters et al., 2013, p.2), or implementation challenges (Lyon, no date). To employ Metz & Bartley's (2012) broader term, implementation drivers are three core components or building blocks of the infrastructure needed to support (practice, organizational, and systems change) competent and sustainable service delivery that ultimately ensure high-fidelity sustainable program implementation: competency drivers, organizational drivers, and leadership drivers. According to Fixsen and colleagues (2005), competency drivers relate to the skillfulness, knowledge, attitude, and motivation of personnel (practitioners, administrators, regulators, stakeholders) in the delivery of the intervention and includes; interpersonal and process level skills (Forgatch et al., 2005; Perepletchikova & Kazdin, 2005; Stein et al., 2007) that determine how well the intervention protocol is implemented as planned. Competence in delivering an intervention includes qualities related to communication, technical abilities, and skills to respond to participants receiving the intervention (Forgatch et al., 2005; Perepletchikova & Kazdin, 2005; Stein et al., 2007). Competency drivers are then ensured through provision of adequate, relevant and quality training.

Organization drivers relate to receptivity of the sponsoring/implementing organization (Wandersman et al., 2008) including the school culture, intentionally developed organizational supports and

systems needed to create a hospitable environment for new programs to be installed and conducted, ensure that the competency drivers are accessible and effective (Dusenbury et al., 2003, pp. 250-251). In the school settings, Lyon (No Date) also indicates that calendars and organizational structures can, among others, affect the implementation processes as programs can truly be considered sustained if they are allowed to continue to be implemented with fidelity over at least 2-3 consecutive school years and this poses difficulties in the functioning of schools.

Broader socio-cultural drivers: Socio-cultural and economic systems affect organizational as well as competency drivers. In educational settings, for example, staff morale and poverty affect how well programs are to be implemented as planned. For instance, new programs are customarily associated in Ethiopia with sponsoring NGOs and this sets expectation for incentive to implement them. A continued lack of program/ policy implementation that is not uncommon in Ethiopia may also set a culture of 'take it easy spirit' in program implementation. In a culture where time is not considered as a resource that finishes would also fail to send a sense of urgency to do business as planned. A lot more cultural features embedded in a particular society, group, and organization need to be featured apriori and adjustments be made beforehand. Just to give an example, it may be difficult to implement a reading skill improvement project in Ethiopia by including an extra reading time (out-off school reading program) for children; as many of them are expected to use their out-off school time either to working for income or run errands at home. The season/ time factor has also its own specific role to play in enabling or disabling program implementation and these needs to be critically examined long before program installation and implementation. For example, whether the time is a harvest time, a fasting period, a period social transition and instabilities, etc. makes a lot of differences in program implementation. Program owners and developers, therefore, need to critically examine if program intervention is spatially, contextually and temporally attuned.

Conclusions and Implications

Conclusions: It can be generally concluded that program / policy and project implementation in Ethiopia has been an area of inadequate performance in different sectors and particularly so in the field of education. In the absence of adequate program performances, it may not even be fair to expect program evaluations to take place. When program evaluations happen, experience shows that they are fundamentally confined to assessing program impact and then relate results to program effectiveness; without due regard to the role of program implementation in determining impact. Given that implementation science is only emerging particularly in social, behavioral, and educational programs particularly in Ethiopia, it is believed that

the problem of program implementation could relate to lack of tools that help gauging the feasibility of programs developed at the planning stage, expediting the process during implementations and also guiding in program monitoring and supervision at large. Hence, the need for an implementation fidelity assessment framework was felt in this paper particularly in social, behavioral and educational programs in an Ethiopian setting. This paper presented a framework that attempted to operationalize implementation fidelity (meaning, components, and characteristics), the possible internal and external drivers giving form and structure to implementation, and the bigger contextual factors that affect program implementation at large.

Implications for Program Implementation in Ethiopia: The major problem inherent in the scenarios presented earlier seems to be a failure to bring the implementation issue on board both in program/policy design as well as in subsequent evaluation efforts to establish program effectiveness. With respect to the former, trying to design a program incorporating measures of implementation fidelity helps to safeguard against rosy tainted plans that hardly translate themselves into actions. Incorporating fidelity measures also makes our programs to be more purposive and focused.

Conducting implementation fidelity assessment also helps to establish the relationship between impact and intervention with certainty. It also helps to determine if the subsequent impact assessment is required or not. Poor fidelity results suggest that the subsequent task of evaluation of program impact is unnecessary (Yeaton & Sechrest, cited in cited in Dusenbury et al., 2003).When we understand that an intervention was not implemented with fidelity, data suggesting that it failed to have an effect becomes 'totally uninteresting' (Yeaton and Sechrest, cited in cited in Dusenbury, Brannigan, Falco, & Hansen, 2003) and useless.

Implications for implementation science: The conceptualization in this paper has a lot of implications for implementation science in general and implementation research in Ethiopia in particular. It makes lots of new additions to existing frameworks and, hence, will contribute towards theorizing fidelity in educational, social, and behavioral program implementations. Among some of its additions are:

- an extended, more comprehensive components of adherence
- viewing implementation as a bidirectional process requiring adjustments both to the program package as well as the setting of implementation
- Including the role of inherent program features as potential threats to implementation
- Assessing implementation fidelity as a process than as a one-shot experience

- Relating implementation driver issues (of Metz and Bartley, 2012) into implementation fidelity in a more systematic and inclusive manner
- Integrate the bigger socio-cultural, economic and political issues in project implementation
- The need to keep posted about possible impacts of time and season on program implementation

***Limitations*:** Overlaps are noted among some components, internal drivers, external driver and contextual factors. In fact, overlaps mayn't be avoided (Hulscher, Laurant & Grol, 2003) unless implantation fidelity measures were consciously incorporated into the program and guided implementation. In fact, some overlaps are assets than liabilities to establish strong claims for concurrent validation of the fidelity components. Yet, attempts need to be made to refine the conceptualizations at least to minimize these concerns

Further work needed: future research is suggested to focus on improving and refining the conceptual clarity of this framework, validating the framework with actual projects implemented in different settings and then develop an implementation theory within the context of the socio-cultural and ecological framework. In the meantime, it is also recommended that more concert checklist be extracted from the model as an aid to conducting quantitative assessments of implementation fidelity in this area.

References

Ababu Teshome, Berhanu Dendena, Bekrethion H/ Sellasie, & Usman Ahmed (2017). The implementation of modular curriculum in three selected universities of Ethiopia. Proceedings of the 7th Annual International Conference on Quality of Education: 'Status and Prospects of Quality of Education for Advancing Sustainable Development in Ethiopia', Jigjiga University, pp. 89-98.

Abatihun A. Sewagegn (2019). Modular/Block teaching: Practices and Challenges at higher education Institutions of Ethiopia Teaching in Higher Education Critical Perspectives.

Abiy Yigzaw. (2013). High school English teachers' and students' perceptions, attitudes and actual practices of continuous assessment. *Academic Journals, 8*(16), 1489-1498.

Assefa Hailemariam (2016). Implementation of the population policy of Ethiopia: Achievements and challenges. *Population Horizons, 13*(1), 1–14.

Aytaged Sisay. (2013). A comparative study on the practice of continuous assessment between Addis Ababa and Unity Universities. *Global Journal of Comparative Education, 1*(1), 50-58.

Bauman, L. J., Stein, R. E. K., & Ireys, H. T. (1991). Reinventing fidelity: The transfer of social technology among settings. *American Journal of Community Psychology, 19*, 619–639.

Belay Tefera, Fantahun Admas, and Missaye Mulatie (2016). Education of children with special needs in Ethiopia: Analysis of the rhetoric of ‘‘Education for All’’ and the reality on the ground. The Ethiopian Journal of Education, 35 (1).

Bellg, A.J., Borrelli. B., Resnick, B., Hecht, J., Minicucci, D.S. & Ory M. 2004). Enhancing treatment fidelity in health behavior change studies: Best practices and recommendations from the NIH behavior change consortium. *Health Psychology, 23*, 443–451.

Bezabih Bekele (2009) Implementation Challenges of Service Delivery Policy of Ethiopia: Civil Servants' Perspective. A Paper presented on the 3rd National Conference on Assessment of the Practices of Civil Service Reform Program in Ethiopia organized by the Ethiopian Civil Service College and the Ethiopian Management Institute.

Bineyam Taye (2014). Online discussion for block teaching in postgraduate health professionals' curriculum: the Ethiopian experience.

Breitenstein, S. M., Gross, D., Carri, H., Fogg, L., & Resnick, B. (2010). Implementation fidelity in community-based interventions. *Res Nurs Health, 33*(2), 164–173. doi:10.1002/nur.20373.

Britto, P. R., Ponguta, L. A., Reyes, M.R., Mekoya Wodaj, Tirussew Teferra & Tezera Fisseha (2012). Feasibility study for the implementation of the early childhood care and education policy framework in Ethiopia: Preliminary Summary of Early Childhood Education Programme Findings. Unpublished Research Report, Ministry of Education, Addis Ababa, Ethiopia.

Bronfenbrenner, U. (1979). The ecology of human development. Harvard university press.

Browne, E. (2016). Evidence on formative classroom assessment for learning. K4D: Knowledge, Evidence and Learning for Development. The K4D helpdesk report commissioned by the UK Department for International Development.

Camfield, L., & Tafere Yisak (2011). Community understandings of childhood transitions in Ethiopia: Different for girls? *Children's Geographies, 9*, 2.

Carroll, C., Patterson, M., Wood, S., Booth, A., Rick, J., & Balain, S. (2007). A conceptual framework for implementation fidelity. Implementation Science, 2, 40.

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A.,

& Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implementation science, 4 (1), 50.

Dane, A.V., Schneider, B.H. (1998). Program integrity in primary and early secondary prevention: are implementation effects out of control? Clinical Psychology Review, 18, 23-45.

Dobson, K.S. & Singer, A.R. (2005). Definitional and practical issues in the assessment of treatment integrity. Clinical Psychology: Science and Practice, 12:384–387.

Dusenbury, L., Brannigan, R., Falco, M. & Hansen, W. (2003). A review of research on fidelity of implementation: implications for drug abuse prevention in school, 18 (2 2003), 237–256.

Elliot D., & Mihalic, S. (2004). Issues in disseminating and replicating effective prevention programs. Prev., 5, 47-53.

Elliott, D.S. & Mihalic, S. (2004). Issues in disseminating and replicating effective prevention programs. Prevention Science, 5, 47–53.

FDRE (1995). The Constitution of the Federal Democratic Republic of Ethiopia (1995). Addis Ababa, Ethiopia.

Federal Negarit Gazet of the Federal Democratic Republic of Ethiopia. Proclamation No. 1/1995. First year No.1 Addis Ababa.

Firehiwot Amsalu (2014). Policy Borrowing Practices and Challenges in Ethiopian Higher Education Institutions: A Case of Quality Assurance. Unpublished Thesis Submitted in Partial Fulfillment of the Requirements for the Master of Arts Degree in Educational Leadership and Management, Addis Ababa University.

Fixsen, D., Naoom, S., Blasé, K., Friedman, R., & Wallace, F. (2005). Implementation research: A synthesis of the literature Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication 231).

Forgatch, M., Patterson, G., & DeGarmo, D. (2005). Evaluating Fidelity: Predictive Validity for a Measure Competent Adherence to the Oregon Model of Parent Management Training. Behav Ther, 36:3-13.

Gizat Mekonnen. (2014). An Assessment of The Practices and Challenges of Modular Master's Program of Addis Ababa University. MA Thesis, Addis Ababa University.

Gottfredson, D. C., & Gottfredson, G. D. (2002). Quality of school-based prevention programs: Results from a national survey. Journal of

Research in Crime and Delinquency, 39 (1), 3-35.

Hailu Gutema (In Press). Students' and instructors' attitudes toward block teaching of modular postgraduate courses - the Dilemmas there of. *Ethiopian Journal of Behavioral Studies*.

Hasson, H. (2010). Systematic evaluation of implementation fidelity of complex interventions in health and social care. Implementation Science, 5, 67.

Hogue, A., Henderson, C.E., Dauber, S., Barajas, P.C., Fried, A., & Liddle, H.A. (2008). Treatment adherence, competence, and outcome in individual and family therapy for adolescent behavior problems. Journal of Consulting and Clinical Psychology, 76,544–555.

http://www.biomedcentral.com/1472-6920/14/29.

http://www.implementationscience.com/content/5/1/67

Hulscher, M., Laurant, M., & Grol R. (2003). Process evaluation on quality improvement interventions. Quality and Safety in Health Care, 12, 40-46.

ILO & CSA, International Labour Organization and Central Statistical Agency. (2018). Ethiopia National Child Labour Survey 2015, Addis Ababa.

Kagan, S.L. (2007). Successful transitions: a question of readiness? Readiness is a condition of families, of schools and of communities. In Martin Woodhead and Peter Moss (Eds.), Early Childhood and Primary Education, Early Childhood in Focus 2, Bernard van Leer Foundation, PP. 22-23.

Kedir, A. (2007). The teacher education reform process in Ethiopia: Some consequences on educators and its implications. Teaching Education, 18 (1), 29–48.

Lipsey, M. W., & Cordray, D. S. (2000). Evaluation methods for social intervention. Annual review of psychology, 51, 345-375.

Lyon, A. (No Date). Implementation science and practice in education sector. BRIEF. www.samhsa.gov/NITT-TA.

Luborsky, L., & DeRubeis, R. J. (1984). The use of psychotherapy treatment manuals: a small revolution in psychotherapy research style. Clinical Psychology Review, 4, 5–14.

Manaye Adela (2017). Practices and challenges on cooperative learning and quality matter among students in higher education institutions: The case in Addis Ababa. Proceedings of the 7th Annual International Conference on Quality of Education: 'Status and Prospects of Quality of Education for Advancing Sustainable Development in Ethiopia', Jigjiga University, pp. 99-110.

Metz, A., & Bartley, L. (2012). Active Implementation Frameworks for Program Success: How to Use Implementation Science to Improve Outcomes for Children. Zero to Three. www.zerotothree.org/permissions.

MoE, Ministry of Education (2012/13). Education Statistics Annual Abstract. EMIS, Planning and Resource Mobilization Directorate, Ministry of Education. AddisAbaba, Ethiopia. Website: www.moe.gov.e.

MoE, Ministry of Education (1994). The new Education and Training Policy of the federal Ministry of Education, Ethiopia.

MoE, Ministry of Education (2002). The Education and Training Policy and Its Implementation. Ministry of Education, Ethiopia.

MoE, Ministry of Education (2006). Special needs education strategy: Emphasizing inclusive education to meet the UPE and EFA goals. Ministry of Education, Ethiopia.

MoE, Ministry of Education (2010). The Early Childhood Care and Education Policy. Ministry of Education, Ethiopia.

Naylor, P.J., MacDonald, H., Zebedee, J., Reed. K., & McKay H. (2006). Lessons learned from Action Schools! BC – an 'active school' model to promote physical activity in elementary schools. J Sci Med in Sport. 2006, 9: 413-423.

Perepletchikova, F., & Kazdin, A.E. (2005). Treatment integrity and therapeutic change: Issues and research recommendations. Clinical Psychology: Science and Practice, 12, 365–383.

Peters, D., Adam, T., Alonge, O., Agyepong, A. & Tran, N. (2013). Research methods and reporting-Implementation research: what it is and how to do it. BMJ, 347:f6753 doi: 10.1136/bmj.f675.

Pettigrew, A.M. (1990). Longitudinal field research on change: theory and practice. Organizational Science, 1, 267-292.

Sánchez, V., Steckler, A., Nitirat, P., Hallfors, D., Cho, H. & Brodish, P. (2007).Fidelity of implementation in a treatment effectiveness trial of reconnecting youth. Health Education Research. 2007; 22:95–107.

Social Protection Policy (2014). Implementation Challenges of the Social Protection System in Ethiopia. A paper presented in a conference in December 2014 Washington, D.C.

Solomon Melese, Aschale Tadege & Vonzell Agosto (Reviewing editor) (2019). The Ethiopian curriculum development and implementation vis-à-vis Schwab's signs of crisis in the field of curriculum, *Cogent Education, 6*, 1, 1633147.

Sintayehu Belay (2016). The Practice of Continuous Assessment in Primary Schools: The Case of Chagni, Ethiopia. *Journal of Education and Practice, 7*, (31), 24-30.

Stein, K.F., Sargent, J.T., & Rafaels, N. (2007). Intervention research: Establishing fidelity of the independent variable in nursing clinical trials. *Nursing Research, 56*, 54–62.

Tareke G. & Tefera B. (2018). The Status and Psychological Challenges of Implementation of Continuous Professional Development/CPD/ in Primary Schools of South Wollo Zone. *Journal of Mass Communication and Journalism, 8* (3), DOI: 10.4172/2165-7912.1000373.

Teka Zewdie & Belay Tefera (2015). Early Childhood Care and Education in Rural Ethiopia: Existing practices, new initiatives, and pilot programs. *Ethiopian Journal of Education, 35* (2), 111-161.

Tesfaye Simela, (2017). Teacher preparation in Ethiopia: A critical analysis of reform. Cambridge Journal of Education, Taylor and Francis.

Tirussew Teferra, Amare Asgedom, Jeilu Oumer, Tassew W/Hanna, Aklilu Dalelo & Berhannu Assefa (2018). Ethiopian Education Development Roadmap (2018-30): An integrated summary. Ministry of Education Strategy Center (ESC). Draft for Discussion.

U.S. Department of Education, Office of Planning Evaluation and Policy Development and Policy and Program Studies Service. (2011). Prevalence and implementation fidelity of research-based prevention programs in public schools: Final report (pp. 58). Washington, D.C.: U.S. Department of Education.

Wandersman, A., Duffy, J., Flaspohler, P., Noonan, R., Lubell, K., Stillman, L., & Saul, J. (2008). Bridging the gap between prevention research and practice: The interactive systems framework for dissemination and implementation. *American Journal of Community Psychology, 41*(3- 4), 171- 181.

Woodhead, M. and Moss, P. (2007). Successful transitions: a question of readiness? Children's readiness for school ... and schools' readiness for children? In Martin Woodhead and Peter Moss (Edrs.), Early Childhood and Primary Education, Early Childhood in Focus 2, Bernard van Leer Foundation, PP.18-19.

Yayeh, M. (2017). The crisis and renaissance of curriculum studies: A reflection on the positions of Wraga and Hlebowitsh. *Bahir Dar Journal of Education, 17* (1), 34–47.

Yeaton, W. H., & Sechrest, L. (1981). Critical dimensions in the choice and maintenance of successful treatments: strength, integrity and effectiveness. *Journal of Consulting and Clinical Psychology, 49*, 156–167.

Yiheyis Seyoum & Getachew Seyoum. (2014). The Implementation of Continuous Assessment in Writing Classes of Jimma College of Teachers Education. *Ethiopian Journal of Education & Science, 10* (1), 109-135.