



Education Policy Intentions and Principals' and Teachers' Conceptualizations of Curriculum Differentiation in Ethiopian Secondary Education

Kagnen Tarekegn

University of Gondar

Ethiopia



Dawit Mekonnen Mihiretie

Addis Ababa University

Ethiopia

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Abstract: This study examined the intentions of education policy documents and the conceptualizations of secondary school principals and teachers regarding curriculum differentiation. Regular and special day schools were selected using purposive sampling based on their experiences with different types of curriculum differentiation. Two school principals and 17 subject teachers were selected using purposive and convenience samplings, respectively. The study analyzed national education policy documents (e.g., education and training policy and curriculum framework) and collected interview data from school principals and teachers. The two main national education policy documents conceptualize curriculum differentiation in terms of various tracks, like fields of study, streams, and school types. The other national document, the guideline for curriculum differentiation, emphasizes the differentiation of curriculum components—contents, instructional processes, assessment strategies, and learning environments—and highlights the importance of inclusive classrooms. Principals' and teachers' conceptualizations of

curriculum differentiation vary across three levels: lacking awareness, holding divergent views, and aligning with policy intentions. The absence of a coherent policy guide and the lack of engagement of principals and teachers in reform ideas have contributed to these diverse conceptualizations. Additionally, the policy intentions seem inadequately addressed through curriculum differentiation practice by school types, such as regular, special day, and boarding schools, which do not correspond to variations in the types and levels of difficulty of the school subjects taught.

Keywords: curriculum differentiation; education policy intention; secondary education teachers

Intenciones de la política educativa y conceptualizaciones sobre la diferenciación curricular en la educación secundaria etíope según directores y docentes

Resumen: Este estudio examinó las intenciones de los documentos de política educativa y las conceptualizaciones de los directores y maestros de escuelas secundarias con respecto a la diferenciación curricular. Se seleccionaron escuelas regulares y especiales diurnas mediante un muestreo intencional basado en sus experiencias con diferentes tipos de diferenciación curricular. Se seleccionaron dos directores de escuela y 17 maestros de asignaturas mediante muestreos intencionales y de conveniencia, respectivamente. El estudio analizó documentos de política educativa nacional (por ejemplo, política de educación y capacitación y marco curricular) y recopiló datos de entrevistas a directores y maestros de escuela. Los dos principales documentos de política educativa nacional conceptualizan la diferenciación curricular en términos de varias vías, como campos de estudio, corrientes y tipos de escuela. El otro documento nacional, la directriz para la diferenciación curricular, enfatiza la diferenciación de los componentes del currículo (contenidos, procesos de instrucción, estrategias de evaluación y entornos de aprendizaje) y destaca la importancia de las aulas inclusivas. Las conceptualizaciones de los directores y maestros sobre la diferenciación curricular varían en tres niveles: falta de conciencia, tener puntos de vista divergentes y alinearse con las intenciones de la política. La ausencia de una guía coherente de políticas y la falta de compromiso de los directores y los maestros con las ideas de reforma han contribuido a estas diversas conceptualizaciones. Además, las intenciones de las políticas parecen abordarse de manera inadecuada mediante la práctica de la diferenciación curricular por tipos de escuelas, como escuelas regulares, escuelas especiales diurnas e internados, que no se corresponden con las variaciones en los tipos y niveles de dificultad de las materias escolares impartidas.

Palabras-clave: diferenciación curricular; intención de política educativa; docentes de educación secundaria

Intenções da política educacional e conceituações de diferenciação curricular no ensino secundário etíope segundo diretores e professores

Resumo: Este estudo examinou as intenções dos documentos de política educacional e as conceituações de diretores e professores de escolas secundárias em relação à diferenciação curricular. Escolas regulares e especiais foram selecionadas usando amostragem intencional com base em suas experiências com diferentes tipos de diferenciação curricular. Dois diretores de escola e 17 professores de disciplinas foram selecionados usando amostragem intencional e de conveniência, respectivamente. O estudo analisou documentos de política educacional nacional (por exemplo, política de educação e treinamento e estrutura curricular) e coletou dados de entrevistas de diretores e professores de escolas. Os dois principais documentos de política educacional nacional conceituam a diferenciação curricular em termos de várias trilhas, como campos de estudo, fluxos e tipos de escola. O outro documento nacional, a diretriz para diferenciação curricular, enfatiza a diferenciação de componentes curriculares — conteúdos,

processos instrucionais, estratégias de avaliação e ambientes de aprendizagem — e destaca a importância de salas de aula inclusivas. As conceituações de diretores e professores sobre diferenciação curricular variam em três níveis: falta de conscientização, manutenção de visões divergentes e alinhamento com as intenções políticas. A ausência de um guia de política coerente e a falta de engajamento de diretores e professores em ideias de reforma contribuíram para essas diversas conceituações. Além disso, as intenções políticas parecem ser inadequadamente abordadas por meio de práticas de diferenciação curricular por tipo de escola, como escolas regulares, escolas especiais e internatos, que não correspondem às variações nos tipos e níveis de dificuldade das disciplinas escolares ensinadas.

Palavras-chave: diferenciação curricular; intenção de política educacional; professores de educação secundária

Education Policy Intentions and Principals' and Teachers' Conceptualizations of Curriculum Differentiation in Ethiopian Secondary Education

There are different ways and strategies for conceptualizing curriculum differentiation (CD). The ways and strategies of conceptualizing CD are considered educational responses to the diverse learning interests and abilities of students to help them reach their full potential (Ireland et al., 2020). In this regard, some educators conceptualize CD as student placement with varying needs, talents, and interests in inclusive classrooms, providing standardized or common curriculum to all students, and adapting and expanding the curriculum to fit each student's learning styles and interests (Reis & Renzulli, 2015; Tomlinson, 2014; Tomlinson et al., 2003; Watson & Reigeluth, 2008). CD is offering a common curriculum for all students with diverse needs, abilities, and skills through differentiation of curriculum components such as contents, instructional strategies, assessments or products, and learning environments in mixed-ability inclusive classrooms. Several educators (e.g., Eikeland & Ohna, 2022; Smale-Jacobse et al., 2019; Tomlinson, 2014) stated that this kind of CD is conceptualized as differentiated instruction. Thus, CD is understood as a strategy of varying instruction for which a common curriculum is implemented to support all students with diverse needs in an inclusive classroom (Adewumi et al., 2017; Reis & Renzulli, 2015).

On the other hand, some educators conceptualize CD as assigning students to distinct tracks and learning settings by offering different curricula to various student groups (Ayalon, 2006; LeTendre et al., 2003; Ware et al., 2011). Still, others conceptualized it as subject and level differentiations (Ayalon, 2006; Ware et al., 2011). Placements of students into distinct school types, streams, and fields of study are some aspects of track differentiation. Placements of students into different subjects and the same subjects but with different levels of advancement (basic and advanced subjects) offered at the same grade level are subject and level differentiations. Some researchers (e.g., Ayalon, 2006; Perry & Lamb, 2017; Van de Werfhorst & Mijs, 2010) argue that CD across different tracks, especially different school types, creates hierarchy and discrepancies in access to academic courses, learning efficiency, academic achievements, educational careers, and social prestige based on factors other than meeting the students' diverse needs and abilities.

The variety of ways that educators conceptualize CD is linked to several contributing factors, apart from the diversity of student learning characteristics. For example, Kaplan (2022) and Terwel (2005) stated that political, social, cultural, and economic factors often influence the conceptualization of CD that leads to tracking practice. They argue that such tracking practices also lead to harmful categorization of students and uphold enduring inequity between student categories. According to Ayalon (2006), Kaplan (2022), and Terwel (2005), offering different curricula to various student groups based on factors other than the diverse abilities of students, such as family

background, race, and social class, regulates access to educational resources for some students and maintains status hierarchy and inequality between privileged and underprivileged students. In general, the variations of CD conceptualization—that is, whether offering students different curricula in different paths or offering a standard curriculum by differentiating its components in inclusive classrooms—must be aligned with the goals of schools that provide equitable learning outcomes for all students in order to minimize hierarchy and inequality among students in an education system (Terwel, 2005; Van de Werfhorst & Mijs, 2010).

According to Terwel (2005) and Van de Werfhorst and Mijs (2010), the goals of schools are to support each student's learning, assist them in reaching their full potential, and minimize inequalities among them, with which educators' conceptualization of CD needs to be aligned. Otherwise, the practices of CD negatively impact the equitable learning outcomes of students and their adult lifestyles. For CD practices to be successful, teachers and other educators should have clear conceptualizations that help to make accommodations for varied levels of learning profiles, readiness, and interests of students (Eikeland & Ohna, 2022; Ireland et al., 2020; Tomlinson, 2014). According to Kaplan (2022), policies tend to change over time in reaction to disputes and changes to curricula. Changes in curricula also necessitate corresponding changes in people, programs, and organizations (Fullan, 2007). However, the majority of teachers and school principals are not involved in changing policies or curricula to be differentiated; instead, they are responsible for delivering them (Sparapani & Callejo-Perez, 2015).

Changing education policies or curricula in African countries, including Ethiopia, is often associated with internal government changes and the influences of multiple external forces, like the governments of other countries or international institutions (Halkiyo, 2023). Particularly, Ethiopia experienced education policy changes from the era of long-aged traditional and religious education to the introduction of Western-like secular or modern formal education (340 AD–1886), the era of Emperor Menelik II (1886–1930), the era of Emperor Haile Selassie I (1930–1974), the Derg era (1974–1991), the EPRDF era (1991–2018), and the Prosperity Party era from 2018 to present (Halkiyo, 2023; Ministry of Education [MoE], 2018; Solomon, 2019b). Within these eras, policy or curricular changes share similar characteristics, such as a top-down approach, disjunctions between global discourse and limited local practices, and foreign influences including France, Britain, America, Russia, or other governments, NGOs, the IMF, and the World Bank (Animaw et al., 2022; Halkiyo, 2023; Seyoum, 1996; Solomon, 2019b). Especially, the top-down approach to policy and curriculum changes, under the influence of internal and external forces, involved state actors and non-state actors, including top political leaders such as ministries, parliamentarians, regional presidents, bureau heads, university presidents, deans, directors, experts, and professional association leaders. However, the changes have usually overlooked the involvement of practitioners such as school principals, teachers, and students (Animaw et al., 2022; Halkiyo, 2023; Seyoum, 1996). Conversely, it is widely agreed that policy enactment depends on the alignment between policy intentions and teachers and school leaders' interpretations of the intentions (Phaeton & Stears, 2017).

Strong alignment between policy aims, school goals, and curricular conceptualizations in an education system allows teachers and other educators to translate policy intentions and curricular contents into classroom practices. In addition, it assists educators in succeeding in analyzing student assessment results and learning outcomes (Eikeland & Ohna, 2022; Phaeton & Stears, 2017; Sparapani & Callejo-Perez, 2015; Terwel, 2005; Van de Werfhorst & Mijs, 2010). After reviewing research conducted in the US, Japan, and Germany, LeTendre et al. (2003) disclosed that the legitimacy for implementation of differentiating curricula is determined by country-specific values, cultures, or policies, as well as by the perceptions, beliefs, or conceptualizations of parents, teachers,

students, and principals. Thus, it is crucial to understand that a key component of a successful CD practice is the alignment of country-specific policy aims (like Ethiopia) with the conceptualizations of teachers and school principals.

Ethiopia has implemented significant educational reforms aimed at improving schools, restructuring the curriculum, and changing education policy. For example, throughout the past 6 years, changes have been made to the Federal Democratic Republic of Ethiopia (FDRE) Education and Training Policy (ETP) of 2023, the General Education Curriculum Framework (GECF) of 2020, and the school improvements that involve the expansion of special day and boarding secondary schools. In Ethiopia, special day and boarding schools are distinct educational options that have developed as alternatives to regular secondary schools. Unlike regular schools, special day and boarding schools admit only selected students who have demonstrated outstanding academic performance in eighth grade regional examinations. These schools offer secondary education for students in Grades 9-12. Boarding schools provide students with accommodation and food in addition to secondary education. Students in boarding secondary schools live in the school campus with their peers and attend classes until the end of the school year, while students in special day secondary schools attend classes during the day and live with their families. These educational arrangements are part of the education system's reform in recent years, although a few special day and boarding schools have existed since decades.

This educational system change in Ethiopia aims to incorporate the issue of CD, and CD has been discussed among policymakers, teachers, and other educators as a vital component of curriculum revision since the introduction of the National Guideline for CD and Individual Educational Programs (IEP) of 2012 (Joshi & Verspoor, 2013; MoE, 2012, 2019). For example, the MoE (2021) states that “curriculum flexibility has to be introduced in Grades 11 and 12 to allow equitable access to... different career paths and make efficient use of school resources to support the diversity of educational contexts in Ethiopia” (p. 74). The GECF stated that “the curriculum should provide equitable opportunities for all learners so that they can reach their full potential” (MoE, 2020, p. 23). Furthermore, the FDRE (2023), in the ETP, commented that “the previous education policy has several shortcomings, including a low participation rate of students with special needs, especially students with disabilities” (p. 2). As a result, the ETP emphasizes the need to create and implement a curriculum developed to address the interests of gifted and talented students, and those with disabilities (FDRE, 2023).

The national policy documents, i.e., the Guidelines for CD and IEP of 2012, the GECF of 2020, and the ETP of 2023, all appear to have as their general goal to accommodate students' varied learning profiles, interests, and readiness through CD. As per the MoE (2023b) press release on August 31, 2023 (found in the Ethiopian MoE website: <https://moe.gov.et/am/publication>), and the 5-year Education Sector Development Program VI (2020/21-2024/25), the MoE and regional education bureaus are giving priority to opening special day and boarding schools in order to cater to the needs of high achievers. Through which competent young citizens are equipped with the necessary academic knowledge and skills that enable Ethiopia to transform into a middle-income economy in less than a decade (MoE, 2021; MoE, 2023b). According to the state minister of the Ethiopian MoE, there is a move to establish 50 special day and boarding secondary schools in Ethiopia (MoE, 2023b). This appears to be a priority set out by the new MoE leadership and triggered by the high passing rate of Grade 12 students in special day schools and boarding schools in national examinations, as well as the high failing rate of Grade 12 students in regular schools in secondary school leaving examinations (MoE, 2023a, 2023b). Hence, on top of the stated policy intentions, special day and boarding schools are perceived as ways to increase pass rates in Grade 12 examinations. Currently, the various regional governments of Ethiopia, under the direction of the

MoE, also appear to emphasize the expansion of special day and boarding schools. There is no evidence of how schools, principals, and teachers conceptualize and implement CD, despite a growing interest in it at the top level.

Various studies have shown that there are challenges in developing a shared understanding of educational ideas and innovation in Ethiopia. For example, the MoE and many scholars (e.g., Akalewold, 2005; Dawit, 2023; Girma & Dawit, 2023; MoE, 2019, 2021) contend that teachers and principals have awareness and clarity problems with some of the main reforms such as active learning, continuous assessment, social promotion, continuous professional development, and problem-based learning. Dawit (2007) reported considerable gaps in the evolution of the education aims of the previous education and training policy into curricular materials and teachers' awareness and classroom practices. To better understand how school principals and teachers conceptualize CD in Ethiopian secondary education, the study intends to explore the national education policy intentions as well as school principals' and teachers' conceptualizations of CD in Ethiopian secondary education. The study provides evidence of coherence in policy ideas and their evolution in the context of Ethiopia.

Statement of the Problem

Ethiopia's education system continues to face challenges due to low and deteriorating trends in secondary school students' learning outcomes, poor practices of continuous assessment, and inadequate responses to students' diverse needs despite improvements in education access during the past three decades (Joshi & Verspoor, 2013; MoE, 2016, 2019; 2021). For example, the total numbers of Grade 12 examinees in Ethiopian higher education entrance examinations in 2021/22 and 2022/23 were 896,520 and 845,099, respectively. From which, only 3.3% and 3.2% have scored 50% and above to join the Ethiopian higher education institutions (MoE, 2023a). Besides, a thorough review of the General Secondary Education Curriculum in Ethiopia revealed the need for curriculum change to provide equitable access to values, knowledge, and skills and alternative career routes, as well as efficient use of school resources for all students, including previously excluded groups of gifted and talented students and those with disabilities (FDRE, 2023; MoE, 2019, 2020). The government of Ethiopia considered, "Education and training are at the center of the Ethiopian government's policies targeted at achieving middle-income economy status in less than a decade" (MoE, 2023a, p. i). Thus, the government revised the ETP and GECF based on an education roadmap study and other studies on the national curriculum. Improving quality, relevance, and equitable access to quality education are the main rationales for the policy and curriculum reforms. The Guideline for CD and IEP, developed in 2012, is still in use.

However, although policy documents stipulate equitable access to quality education and CD can be one of the ways to address this, it appears that there are two parallel directions of tracking students at the secondary school level and a policy of inclusive education, which is still a guiding principle of some of the above documents. Secondly, although special day schools and boarding schools could have diverse purposes, there is no evidence of how teachers and principals conceptualize their purposes or whether they are in fact serving the needs of academically high-achieving students selected at the end of primary education. In fact, some of the rhetoric from top educational leaders at the Ministry of Education and regional states seems to suggest that high academic achievement in secondary school leaving examinations is the prime purpose rather than differentiating the curriculum to the needs and abilities of students. On top of this, the coherence among the national policy documents regarding CD is essential to translating policy intentions into actual practices. As stated earlier, the guidelines for CD and IEP appear to focus on accommodating students with diverse needs and abilities in an inclusive classroom, whereas the ETP and the GECF

focus on accommodating students with diverse needs and abilities in separate tracks, for example, student placements between different school types such as regular, special day, and boarding schools (FDRE, 2023; MoE, 2012, 2020, 2021).

The CD reform (establishing special day schools, boarding schools, and categorizing students along different levels) appears to emanate from the need to address the diverse learning needs and current learning crisis in regular schools. The federal and regional education bureaus appear to prioritize the expansion of placing students into different secondary school types (i.e., regular, special day, and boarding secondary schools). It is reported that the purpose of expanding such special day schools and boarding schools is primarily to meet the exceptional needs and abilities of gifted and talented students who cannot realize their abilities in regular schools (MoE, 2020; MoE, 2023b). However, these special day and boarding secondary schools admitted high academic achievers rather than gifted and talented students to teach the common curriculum, which is already in use for students in regular school. Authorities argue that those students with high achievement and abilities should be taught in special day and boarding schools where facilities are well equipped so that they can be the future scientists and leaders. There is not much rhetoric in terms of meeting the needs of students with low learning achievements except school-based interventions in terms of make-up classes or tutorials. Under such a context, the study examines how school principals and teachers conceptualize CD.

Current research in Ethiopia (i.e., Abrham, 2019; Addis, 2019; Solomon, 2019a; Tadesse, 2018) focuses on instructional differentiation (such as content, instructional process, assessment, and learning environment) in an inclusive classroom setting rather than CD in a broader sense. The explanatory sequential mixed study of Tadesse (2018) and the three distinct case studies by Abrham (2019), Addis (2019), and Solomon (2019a) deal with the differentiation of curriculum components. There are also studies that refer to instructional differentiation as curriculum differentiation. The qualitative study by Marishane et al. (2015) and the quantitative survey study by Ireland et al. (2020) characterize the differentiation of curriculum components as curriculum differentiation. Others use CD to examine student placements into different tracks within and between school types (Ayalon, 2006; Perry & Lamb, 2017; Smyth, 2017).

Some studies in Ethiopia (e.g., Animaw et al., 2022; Halkiyo, 2023; Seyoum, 1996; Solomon, 2019b) showed that the Ethiopian education policy and curriculum reforms appear to be the result of a top-down approach dominated by the top leadership, experts, and development partners or donors, with little to no involvement of practitioners (i.e., school leaders, teachers, parents, and students). These practices discourage school leaders, teachers, and researchers from challenging the challenges of educational reforms in Ethiopia (Animaw et al., 2022; Halkiyo, 2023; Seyoum, 1996). Hence, it is often reported that a lack of clear understanding of education reform ideas is one of the implementation problems.

This study involved one regular secondary school and one special day secondary school. The special day school admitted high academic achievers from eighth grade, whereas the regular school admitted students with diverse levels of achievements from eighth grade. In the special day school, there are only students in the natural science stream, which aims to produce scientists and professionals in science and technology, but the subjects offered to students in the special day school are similar to those offered to students in the natural science stream in the regular school. On the contrary, steam differentiation (i.e., natural sciences and social sciences streams) and subject differentiation, which is limited to language subjects (i.e., Amharic and Afan Oromo), are available in the regular school. In both schools, principals and teachers are supposed to have vital roles in implementing the available types of CD. However, principals' and teachers' conceptualizations of various types of CD and their alignment with the intentions of national policy documents on CD are

not yet investigated. In general, the focus of this study on the conceptualizations of secondary school principals and teachers on CD in Ethiopia and the alignments between their conceptualizations and the intentions of national education policy documents on CD contributes much to closing the aforementioned gaps. One of its additional contributions includes providing evidence of coherence in policy ideas and their evolution in a developing country context. The study then attempts to answer the research questions mentioned below.

Research Questions

This study has been intended to address the following basic research questions: (1) What are the intentions of education policy documents in Ethiopia regarding curriculum differentiation? How coherent are the intentions of different policy documents? (2) How do secondary school principals and teachers conceptualize curriculum differentiation? (3) How coherent are the conceptualizations of principals and teachers with the intentions of education policy documents?

Theoretical Framework

According to Eikeland and Ohna (2022), there are four ways to approach differentiation: individualized-based differentiation, group-specific differentiation, classroom adaptations within diversity, and differentiation from the institutional system or policy perspective. The four perspectives of differentiation can be broadly categorized as CD between classes or school types (LeTendre et al., 2003; Perry & Lamb, 2017) and CD within a classroom (Reis & Renzulli, 2015). In line with the first form of CD, Perry and Lamb (2017) defined CD as “the process of accommodating diverse needs, interests, and talents of students by providing them with different curricular opportunities” (p. 1). LeTendre et al.’s. (2003) theoretical framework concisely explains five different types of CD that demonstrate a wide range, from tracking students between school types to grouping them between classrooms.

Type 1 (School Type): The first type of CD refers to CD by school type, which means CD differs between school types in formal and structural ways. These school types, serving the same grade level, differ in their curricula, which direct students towards various post-secondary paths. Formal selection methods typically govern student admission into different school types, making it challenging for students to transfer between types. Austria, Belgium, the Czech Republic, Finland, Germany, Hungary, Ireland, Japan, the Netherlands, Slovenia, and Turkey are among the nations with Type 1 CD in their education systems (Bol & Van de Werfhorst, 2013; LeTendre et al., 2003; Perry & Lamb, 2017). For example, the three types of high schools in Germany—lowest level, middle level, and highest level—(Bol & Van de Werfhorst, 2013), the three types of upper secondary schools in the Czech Republic—academic, technical, and vocational/trades (Perry & Lamb, 2017), the two types of upper secondary schools in Finland—general academic school and vocational school, and the three types of secondary schools in Ireland—voluntary, comprehensive, and vocational schools (Smyth, 2017) are all Type 1 CD.

Type 2 (Fields of Study): This category describes CD by fields of study, which entails offering students’ more than one official pathway within a school. Each field of study often comprises several distinct core subjects (the core of broad disciplinary areas). These are subjects taught in all regional and national educational systems. Students typically find it challenging to shift from one field of study to another. Australia, Japan, Norway, and Sweden are among the nations whose educational systems comprise Type 2 CD (LeTendre et al., 2003; Perry & Lamb, 2017).

Type 3 (Stream): CD through streams involve more than one pathway within a school, with each path containing multiple subjects but one route differing from the other(s) by rigor rather than broad disciplinary area. This type of CD usually covers several years or courses. Student interest

and past-grade academic performance usually determine entry into streams, and movement between streams is flexible. Australia, Japan, and the United States are examples of countries with Type 3 CD in their education systems (LeTendre et al., 2003; Perry & Lamb, 2017). The stream is particularly prevalent within a comprehensive high school due to its popularity in many nations. For example, the liberal arts and science streams in Japan and the college preparatory and regular streams in the United States (LeTendre et al., 2003), as well as the academic extension stream for a selected group of students and the general stream for all other students in some Australian lower secondary high schools (Perry & Lamb, 2017), are all commonly referred to as Type 3 CD.

Type 4 (Ability Grouping): In a school or between classrooms in the same grade, Type 4 refers to CD by ability grouping, which often includes one or more pathways for each core subject area. Standardized exams and teacher-made assessments of some measurable or assumed abilities of students are just two of the many reasons used to place students into ability groups. Although initially flexible, their transition across courses of ability groupings becomes progressively more challenging. Usually, ability grouping refers to a single subject or year level. Australia, Britain, France, Ireland, Israel, and the United States are among the nations whose educational systems include Type 4 CD (Ayalon, 2006; Callahan, 2005; Gamoran, 1989; Hallinan & Kubitschek, 1999; LeTendre et al., 2003; Perry & Lamb, 2017; Smyth, 2017). For example, ability grouping for mathematics in three pathways (advanced, general, and foundation) within and between classrooms in the same high school in the United States (Callahan, 2005; Gamoran, 1989; LeTendre et al., 2003; Smyth, 2017); ability grouping for mathematics, English, and science between classrooms in a lower secondary school in Australia (Perry & Lamb, 2017); and ability groupings for English and mathematics at higher or foundation level in Irish lower secondary schools (Smyth, 2017) are Type 4 CD.

Type 5 (Geographic Location): According to LeTendre et al. (2003), unsystematic differences in CD exist between schools of the same kind in various geographic regions due to differences in socioeconomic makeup and funding source of the school. Australia and the United States are two nations whose education systems are well-known for their Type 5 CD (LeTendre et al., 2003; Perry & Lamb, 2017). In the United States, socioeconomic disparities and local school funding across different geographic locations gave rise to Type 5 CD (LeTendre et al., 2003).

The second form of CD, within a classroom, promotes the inclusion of students with diverse needs and abilities by differentiating curriculum components such as contents, instructional processes, assessment strategies, and learning environments in accordance with every student's learning profile, interest, and readiness (Tomlinson, 2014). This form is supported by Gardner's (1983) theory of multiple intelligences and Vygotsky's (1978) concept of the zone of proximal development (ZPD). The theory of multiple intelligences and the concept of the ZPD both recognize that educators must differentiate a curriculum to accommodate students' varying needs and abilities. In CD, educators offer learning opportunities that foster students' potential abilities (Seifert & Sutton, 2009). Eikeland and Ohna (2022) also reported CD as a means of responding to student diversity in order to meet the vision of a school for all.

Similarly, UNESCO (2004) defined CD as the practice of adapting curriculum to consider students' varied skill and ability levels in a classroom. Then, teachers, working in collaboration with other stakeholders like school administrators, curriculum designers, and policymakers, can employ CD to support every student's learning at their own pace and ability level. Accordingly, UNESCO specified that teachers differentiate the curriculum to make it more need-based by changing the contents, instructional strategies, and assessment options. Moreover, Reis and Renzulli (2015) added that classroom differentiation needs to be considered as a curriculum component in addition to content, instructional process, and assessment differentiations for the implementation of CD in a classroom of students with diverse needs. Generally, the aforementioned five specific types of CD

to be implemented in separate paths along with differentiation of curriculum components in an inclusive classroom are employed in this study to examine the intention of education policy documents and principals' and teachers' conceptualizations of curriculum differentiation.

Method

Research Design

The contexts, conceptualizations, and phenomena of CD in regular and special day secondary schools were investigated using a case study design. A case study design allows researchers to investigate the comprehensive, in-depth, thorough, or precise depiction of an individual, program, school, group, or event as an entity (e.g., Creswell & Creswell, 2018; Mertens & McLaughlin, 2004). According to Yin (2018), using a case study as a research design is particularly necessary to understand complex phenomena and preserve the extensive and important elements of real events, such as organizational and management procedures. Therefore, the case study design aids in understanding the intricate details and key components of CD in secondary education.

Study Contexts

This study was conducted in two government secondary schools (Grades 9 to 12) in Addis Ababa City Administration, designated as School A and School B. School A refers to a regular secondary school founded in 1905. Now, it offers education from Grades 9 to 12 for all students who have mixed-ability academic achievements. School B is a special day secondary school founded in 1957 as a regular school but transitioned to its current status in 2015. It also offers education from Grades 9 to 12, but only for selected students who are admitted as high academic achievers. School A and School B are different school types and practice different types of CD. School A has been practicing CD by stream (natural science and social science) since 1948 and CD by subjects but limited to language subjects (Amharic and Afan Oromo) for the last 4 years. Students who have been placed into Amharic and Afan Oromo subjects were grouped into different classrooms, but they took the same subjects except Afan Oromo was offered only to students in one classroom and Amharic was offered only to students in another classroom. Accordingly, School A has more (i.e., 75) years of streaming experience than other regular schools. School B had been serving as a regular school before it was designated as a special day school in 2015. In this school, highly qualified teachers are assigned to teach students who are selected based on their high academic achievement in primary education and through the administration of entrance exams for admission to Grade 9. Since 2015, School B teachers have differentiated the components of the curriculum, including content, teaching methods, and learning environments. They differentiate teaching methods and learning environments by implementing research-based projects and assignments, providing modern laboratory and ICT resources, and increasing the depth and complexity of the content. Both schools are expected to provide data on how they conceptualize CD. They have been open for many years, and one of the schools was selected as the only special day school in the study area.

In 2022/23 academic year, School A had 2,338 students (1,153 male students and 1,185 female students), 128 subject teachers (110 male teachers and 18 female teachers), and four school principals (one main principal and three vice principals). In addition, School B had 312 students (174 male students and 138 female students), 35 subject teachers (28 male teachers and seven female teachers), and two school principals (a main principal and a vice principal). Table 1 shows the total number of students in both schools, broken down by sex and grade level.

Table 1*Student Population across Sex and Grade Level in School A and School B*

| Grade level | No. ^d of students in <i>School A</i> | | | No. ^d of students in <i>School B</i> | | |
|--------------|---|----------------|----------------|---|----------------|----------------|
| | M ^a | F ^b | T ^c | M ^a | F ^b | T ^c |
| Grade 9 | 304 | 265 | 569 | 48 | 34 | 82 |
| Grade 10 | 119 | 137 | 256 | 37 | 36 | 73 |
| Grade 11 | 332 | 329 | 661 | 44 | 38 | 82 |
| Grade 12 | 398 | 454 | 852 | 45 | 30 | 75 |
| Total | 1,153 | 1,185 | 2,338 | 174 | 138 | 312 |

Notes: ^aMale students; ^bFemale students; ^cTotal students; and ^dNumber.

Participants

Due to their roles and experiences on CD, School A and School B were chosen as study sites using purposive sampling. School principals were also chosen in both schools using purposive sampling due to their school positions, longer years of experience in their respective school administrative system and teaching-learning processes, and their extensive knowledge and information about school matters that might represent other staff of the schools. In addition, school leaders are primarily responsible for implementing national policies in their schools. According to Creswell (2012) and Cohen et al. (2018), to comprehend the vital phenomenon (the phenomenon of CD in this study case), information-rich sites and knowledgeable persons can be chosen purposefully. Thus, using a purposive sampling, a male principal of School B, and a female vice principal of School A were chosen as participants. Besides, 17 subject teachers who taught Amharic, English, Afan Oromo, mathematics, chemistry, biology, physics, history, geography, ICT, and civics and ethical education subjects were chosen using convenience sampling. According to Cohen et al. (2007), convenience sampling is the sampling strategy that could be employed for case study design, through which researchers simply choose respondents from those to whom they have easy access at the time. Cohen et al. stated that students or teachers often serve as respondents based on convenience sampling. Accordingly, 11 teachers from School A and six teachers from School B, as depicted in Table 2, were chosen as the study participants using convenience sampling based on their easy availability and accessibility to the researchers at the time of data collection. See Table 2 for the demographic details of the principal and teacher participants from the two schools.

Table 2*Demographic Characteristics of Principal and Teacher Participants*

| Participant Code | Position | Sex | Education level | Work experience in years | School code |
|------------------|----------------|----------------|------------------|--------------------------|-------------|
| Principal A | Vice Principal | F ^b | MA ^e | 11 | School A |
| Principal B | Principal | M ^a | MA ^e | 17 | School B |
| Teacher A1 | Teacher | F ^b | MA ^e | 5 | School A |
| Teacher A2 | Teacher | M ^a | MA ^e | 30 | School A |
| Teacher A3 | Teacher | M ^a | MSc ^f | 38 | School A |
| Teacher A4 | Teacher | M ^a | MSc ^f | 8 | School A |
| Teacher A5 | Teacher | M ^a | BA ⁱ | 4 | School A |
| Teacher A6 | Teacher | M ^a | MA ^e | 12 | School A |
| Teacher A7 | Teacher | M ^a | MA ^e | 8 | School A |

| Participant Code | Position | Sex | Education level | Work experience in years | School code |
|------------------|----------|----------------|------------------|--------------------------|-------------|
| Teacher A8 | Teacher | M ^a | BSc ^j | 31 | School A |
| Teacher A9 | Teacher | F ^b | MA ^e | 15 | School A |
| Teacher A10 | Teacher | M ^a | BA ⁱ | 27 | School A |
| Teacher A11 | Teacher | F ^b | MA ^e | 16 | School A |
| Teacher B1 | Teacher | M ^a | MSc ^f | 14 | School B |
| Teacher B2 | Teacher | M ^a | MEd ^g | 14 | School B |
| Teacher B3 | Teacher | M ^a | MSc ^f | 10 | School B |
| Teacher B4 | Teacher | M ^a | MSc ^f | 17 | School B |
| Teacher B5 | Teacher | F ^b | PhD ^h | 25 | School B |
| Teacher B6 | Teacher | M ^a | MA ^e | 12 | School B |

Notes: ^aMale; ^bFemale; ^eMaster of Arts; ^fMaster of Science; ^gMaster of Education; ^hDoctor of Philosophy; ⁱBachelor of Arts; & ^jBachelor of Science.

Data Collection Instruments

In this study, an interview guide and a document review guide were developed after carefully examining pertinent literature. The interview guide included two forms: one that contained six guiding questions for a principal and a vice principal, while the other contained six guiding questions and was administered to teachers. The guiding questions were specifically tailored to the responsibilities and duties of school principals and teachers. For example, in the teachers' form of interview, there was a question: how do you (a) teach contents, (b) use instructional strategies, (c) manage learning classrooms, and (d) conduct assessments in your subject area? However, in principals' form, the question was: how do you support teachers to (a) teach contents, (b) use instructional strategies, (c) manage learning classrooms, and (d) conduct assessments in their subject areas? During face-to-face individual interviews with principals and teachers, the consent of each of them was asked orally, and they participated after explanations of the study's purpose. All interviews were conducted in school compounds using an audio recorder that respected participants' confidentiality. In this regard, considering ethical principles and practices such as informed consent, confidentiality, and anonymity not only protects participants from harm but also helps to obtain valid and reliable data (Cohen et al., 2007, 2018).

The other data collection instrument, a document review guide, was employed in this study to gather qualitative data from national education policy documents in Ethiopia. For the purpose of this study, first, all national education policy documents in Ethiopia were collected from the respective offices of the MoE. Second, the relevant policy documents for the study—the ETP of 2023, the GECF of 2020, and the Guidelines for CD and IEP of 2012—were identified. Though the focus of the former two policy documents is mainly on the general education system, the features of various types of CD have been incorporated into their intentions and contents as vital components. Last, the document review guide in the form of a checklist (see Appendix A) was prepared to review whether the intentions of the three national education policy and curriculum documents include different types of CD; these are Type 1, Type 2, Type 3, Type 4, Type 5, and other types of CD (to examine if there were other types of CD that emerged from the documents). The types of CD, from Type 1 to Type 5, are known as a typology of CD developed by LeTendre et al. (2003), as described in the theoretical framework section. The other type of CD that emerged from a document is the differentiation of curriculum components such as contents, instructional processes, learning environments, and assessment strategies. The typology of CD as a framework was used because it is

comprehensive and simple to explore the unique features of CD. Besides, the framework is relevant globally, and other academics have utilized it to assess the CD experiences of nations like Australia.

Data Analysis Procedures

The data collected through the document review guide was analyzed qualitatively using the following steps: First, the aims, goals, or intentions of the three national education policy documents were identified. Second, the contents of these three policy documents were reviewed against their intentions towards different types of CD (i.e., the topology of CD and differentiation of curriculum components) using a checklist (see Appendix A). Last, the results collected were presented separately in the results section of this study. The qualitative data collected through the interview guide was also analyzed following sequential steps from the specific data to general themes as outlined by Creswell and Creswell (2018, pp. 268–270). First, audio-recorded data collected from school principals and teachers was transcribed, sorted, and arranged into text data from different Microsoft Word documents. Second, researchers read all the text data to conceptualize the general ideas of participants. Third, the text data was coded and organized into different categories and themes. Fourth, five themes were generated. Last, these themes and their descriptions were presented in the results section of this study. During the presentation of the results, the participants remained anonymous.

According to Marczyk et al. (2005), it is important to note that research participants may receive compensation. However, participants in this study received no compensation because the authors had no research funding available and participation in the study was voluntary. The authors also made it clear to the participants that although they would not receive direct benefits, the insights gained from their responses would be used to design and implement educational policy reforms in Ethiopian schools. The study involved no anticipated risks or discomforts for participants and received approval from the Institutional Ethics Review Committee (IERC) of the College of Education and Behavioral Studies at Addis Ababa University, with the ethics committee approval reference CEBS_IERC_C & I_001/2023.

Findings

Intentions of Education Policy in Conceptualizing Curriculum Differentiation

In Ethiopia, the education sector has undergone several national policy documents in the last 6 years. These documents include the GECF of 2020 and the ETP of 2023. The ETP and the GECF guide the whole intentions of the general education system of Ethiopia, including the intention of curriculum differentiation. Similarly, the 2012 National Guidelines for CD and IEP are still guiding the intention of CD within the general education system of Ethiopia. Hence, the three national policy documents, among other concerns, have a similar concern of guiding curriculum differentiation within the same education system, i.e., the general education system of Ethiopia. Table 3 shows the intentions or purposes of the national policy documents as a source of the conceptualizations of different types of CDs.

As shown in Table 3, the three documents that make up Ethiopia's national education policy are broad in their stated intentions (purposes), from which the conceptualization of CD emerged. The following section provides in-depth analyses of these national policy documents against the theoretical framework of the typology of CD developed by LeTendre et al. (2003) and the other form of CD, i.e., differentiation of curriculum components.

Table 3*Intentions of National Education Policy Documents of Ethiopia*

| National document | Intention/Purpose |
|--------------------------------------|---|
| The ETP of 2023 | <ul style="list-style-type: none"> • To provide language subjects in secondary education, i.e., mother tongue, and optional federal language(s) and foreign language(s) (p. 8); • To ensure delivering secondary education in different tracks, streams, or fields of study (p. 9); • To prepare secondary education curricula those accommodate the needs of talented students and persons with disabilities (PWDs) (p. 9). |
| The GECF of 2020 | <ul style="list-style-type: none"> • To provide students in Grades 9 and 10 with general education subjects that include five optional subjects (pp. 3, 10); • To help students in Grades 11 and 12 choose among eight career and technical education fields of study in social science and natural science streams (pp. 3, 10); • To organize special schools to accommodate the needs of talented people and PWDs (pp. 3, 10). |
| The Guideline for CD and IEP of 2012 | <ul style="list-style-type: none"> • To introduce CD to the education sector in Ethiopia (p. 6); • To provide clear instructions on CD and give technical support to schools and teachers to include the diverse needs of learners (p. 6). |

Types of Curriculum Differentiation Introduced in the Education and Training Policy

Language area is one of the CD conceptualization indicators included in the 2023 FDRE education and training policy. In this regard, the FDRE (2023) mentioned that “mother tongue shall be used as a subject and... its end subject to be decided by concerned regional authorities. A student or a student parent can choose from among the Federal Languages and learn as a subject from grades 3–10” (p. 8). The ETP document also includes the following statements:

One additional language may be selected from among the federal languages and learned as a subject. The decision regarding the grade level where it starts and ends is left to the regions. One additional foreign language shall be offered as an optional subject beginning in grade 9 (FDRE, 2023, p. 8).

The ETP document also included the conceptualization that “special curriculum that accommodates gifted and talented students and students with disabilities... shall be prepared and implemented” (FDRE, 2023, p. 9). Moreover, the ETP document indicates that the 2 years of secondary education will be organized into various focus areas or fields of study and offered to students in Grades 11 and 12.

Types of Curriculum Differentiation Introduced in the National General Education Curriculum Framework

The secondary school level from Grades 9 to 12 incorporates principles of various types of CD. According to the Ethiopian MoE (2020), “In grades 9 and 10, students continue learning general education subjects, which consist of 10 compulsory and two optional ones out of five subjects” (p. 3). In particular, students in Grades 9 and 10 take 12 subjects, including 10 compulsory

subjects. These subjects include English, mathematics, chemistry, physics, biology, geography, history, citizenship education, economics, and information technology. First language, a federal language, a foreign language, health and physical education, and performing and visual arts are the options for the two optional subjects. In addition, the GECF specifies that students in Grades 11 and 12 enrol in either social science or natural science streams. The curriculum framework included the following:

Grades 11 and 12 subjects divide students into natural science and social science streams, in which natural science has five fields and social science has three fields of study. Each of the natural sciences field of study has seven general subjects and a maximum of five field-based subjects, while each of the social sciences field of study has six subjects and a maximum of five field-based subjects (MoE, 2020, p. 41).

In particular, the natural science stream has five fields of study: construction, manufacturing, information technology (and computer science), agriculture, and health science. In contrast, the social science stream has three fields of study: business science, language (and social science), and performing and visual arts. All Grade 11 and 12 students enrolled in the natural science stream complete seven general education subjects and a maximum of five field-based subjects for each field of study. Similarly, all students enrolled in the social science stream in Grades 11 and 12 take six general education subjects and a maximum of five field-based subjects in each field of study. Additionally, according to the GECF of Ethiopia, special schools can now offer secondary education in various settings to cater to the needs of gifted students and people with severe disabilities. In its GECF of Ethiopia, MoE (2020) stated, “Special schools shall... provide for the needs of the talented and those with severe disabilities” (p. 10). In other words, to fulfill the specific needs of students with severe disabilities and those who attend special schools for gifted and talented students, their curricula is expected to differ from the regular school curriculum.

Types of Curriculum Differentiation Introduced in the National Guideline for Curriculum Differentiation and Individualized Educational Program

According to the Guideline for CD and IEP published by the Ethiopian MoE in 2012, a curriculum contains four components: contents, instructional strategies, instructional materials, and learning assessments. This guideline’s conceptualization of CD expands curriculum components according to the various learning levels of the students in an inclusive classroom. As the MoE (2012) notes in this document:

The curriculum in an inclusive classroom is a single core curriculum that is accessible to all learners. Teachers have a vital role in making assessments of the learners’ interests, potentials, and abilities and implementing curriculum differentiation in an inclusive classroom (p. 13).

The guidelines for CD and IEP incorporated the idea that CD is essential to addressing every student’s educational needs and fostering inclusive classroom practices. According to the CD guideline, the inflexibility of the curriculum and teachers’ lack of adequate training in modifying the standard school curriculum to meet the needs of individual students are two drawbacks of implementing CD in inclusive classrooms. The guideline states that teachers have a crucial role in determining how best to differentiate curriculum elements, including what is taught, how it gets taught, how it is assessed, and what resources and tools are employed in an inclusive classroom. Thus, teachers must be aware of the contents, instructional methods, assessment strategies, and learning contexts to build an inclusive environment and ensure that everyone has access to learning.

In general, the ETP stipulated that career and technical education fields of study would be offered in Grades 11 and 12, and that mother tongues, federal languages, and foreign languages would be offered as elective subjects in Grades 9 and 10 in all regions and schools. The GECF, which aligns with the ETP intention, outlines the career and technical education fields of study in natural or social science stream and subjects that will be offered in Grades 9 through 12 across regions or schools. Subject differentiation, which is limited to language subjects, stream differentiation, and differentiations based on fields of study and geographical locations are therefore implied to be implemented in Grades 9 through 12.

Additionally, while the GECF specifies that students with disabilities and talented students might be placed between school types or within a school type to complete their education in Grades 9 through 12, the ETP document states the provision of secondary education curriculum to these students with disabilities and talented students based on their needs and abilities in general terms. These remarks suggest CD across school types or ability groupings within a school type. However, the GECF appears to conceptualize CD in terms of grouping between school types or within a school type but does not explicitly mention how curriculum will be organized for such schools or what the specific aim of CD is for talented and gifted students. Furthermore, since CD's intention is limited to the general curriculum (Grades 9–12), its interface with students further is not clearly stated. Hence, the intentions of CD at a system level remain to be spelled out at both the ETP and the GECF, but they are essential to meeting the needs of students with special educational needs, including talented and gifted students.

Conversely, the Guidelines for CD and IEP specify that the common curriculum components, such as contents, instructional processes, assessment strategies, and classroom environments, should be differentiated based on the needs of each student in order to meet their diverse needs in an inclusive classroom. The guideline document includes an additional and distinct kind of CD. As a result, the ETP and the GECF have different intentions and strategies for CD compared to the guidelines for CD and IEP.

School Principals' and Teachers' Conceptualizations of Curriculum Differentiation

The data collected from principals and teachers about their conceptualizations of CD are presented under the following major themes. These major themes emerged from the data following the processes of qualitative data analyses recommended by Creswell and Creswell (2018, pp. 268–270). Creswell and Creswell stated that transcribing interviews and categorizing the data based on information sources is the initial stage of organizing and preparing data for analysis. Reading through all the data in the second stage provides a comprehensive understanding and an opportunity to evaluate its overall significance. The third phase involves data coding, which includes classifying the text data, assigning a label to each group, and categorizing the data. The fourth phase creates a description and identifies themes, which goes beyond simply recognizing the themes during the coding process. It involves extensively working with the themes to create intricate theme linkages and add further layers of analysis. The final step articulates the description and themes, stating how they are presented in the qualitative narrative. A narrative passage is often used to convey the conclusions of the analysis.

Curriculum Differentiation as Gifted Programs and Conceptualization of Giftedness

Some of the participants perceived CD as a program that considers the various abilities and passions of gifted and talented students. Teacher A1 and Teacher A3 mentioned that every student has at least one unique talent or gift. According to Teacher A3, “Some students have exceptional abilities in mathematics, others in language areas, and others in sports areas.” As a result, for

Teacher A1 and Teacher A3, CD should consider the diversity of every student's talents and interests rather than catering to the talents and interests of a small group of students. On the other hand, Teacher B1 and Teacher B3 believed that a small number of students had innate gifts and talents in both academic and extracurricular arenas. Teacher B1 stated, "There is a big difference between high-achievers and gifted or talented students. High achievers are the best scorers in subject areas, but gifted or talented students are also practically inventors of something new in a community." Therefore, for Teacher B1 and Teacher B3, the majority of students are high achievers in the classroom but not necessarily gifted or talented. They stated that CD is a program that serves a small number of gifted students based on their unique abilities to help them become inventors. Teacher B5 also argued:

In my understanding, all students cannot be successful in academic areas. They have various abilities in music, art, literature, agriculture, technical drawing, woodwork, and gymnastics. For example, some want to be artists, others want to be educated farmers, and still others want to be space scientists. Thus, CD means meeting students' unique needs through dropping unrelated areas of learning for their abilities and promoting their abilities for a need-based future career in which they can lead a successful life in a society.

Teacher A7 expressed that "I believe that every student has his or her own unique giftedness or talent, but the way the education system treats the student's giftedness and talent makes a difference. Therefore, CD is a program of individualized curriculum for every student's talent or giftedness in an inclusive school." For example, Teacher A7 elaborated that if musically talented students were mistreated, they were considered "normal" in their whole lives. If their talent is identified early and treated properly, they invent something in their talent area and contribute to their society. Teacher A7 further added, "All students should learn a common curriculum by differentiating curriculum components based on their giftedness or talents. Otherwise, dividing students into separate school types based on certain criteria such as gender, academic achievement, and types of disabilities promotes exclusion among students."

Curriculum Differentiation as Student Placement into Subjects, Streams, and Schools

Another theme that emerged from the data is the conceptualization of CD as placement into different subjects, streams and school types. According to Teacher B2, "There are grouping students into the natural and social sciences stream in Grades 11 and 12, and into Amharic and Afan-Oromo subjects in Grades 9 and 10 within regular government schools in Addis Ababa. These show the conceptualizations of CD." Teacher A9 also viewed:

I understand that students in a classroom differ by interest, understanding, and ability. Some groups of students are interested in number-related areas; others are interested in social areas; and still others are interested in practical application or vocational fields of study. Thus, CD is a stream choice based on interests among social, natural, and vocational tracks.

Teacher B2 added, "I think CD as a program specialization like health and agriculture is important to meet the students' diverse needs." Besides, Teacher B4 argued that:

If we take the case of the Netherlands as an example, there are two groups of students. One group that scored lower academic achievement joins a type of school that focuses on the application area. The other group that scored higher academic achievement joins another type of school that provides students with university

preparatory education and then directly joins the university. So, ability grouping into such types of schools is part of CD's response to their levels of abilities.

Teacher A7 further stated, "CD, in my opinion, is reflected by the historical boarding schools for girls and boys, special day schools for high academic achievers, and other school types." Teacher 7 added, "In Ethiopia, for example, Sebeta Special Boarding School is considered a CD for blind students, and Gelan Boys Boarding School, Menen Girls Boarding School, and Menelik I Special Day School are considered a CD for high academic achievers." However, Teacher A7 argued that these types of separate schools as CD are not advisable because all students, including persons with and without disabilities, high and low academic achievers, and economically rich and poor families, are not treated equally and equitably in such types of segregated environments; rather, these types of CD abandon inclusion.

Curriculum Differentiation as Special Curriculum for Groups of Students

Principal B stated that "CD is designing unique curriculum courses for gifted and talented students because the existing common curriculum contents developed for all secondary school students cannot meet their exceptional needs." Similar to how Teacher B1 and Teacher B3 envisioned CD, Principal B argued that curriculum should be exclusively designed for talented and gifted students to maximize their potential. These respondents argued that all students should not follow a single, nationally developed curriculum. According to Teacher A1, "CD is a specially designed curriculum, not just for a specific group of students, but for different groups of students based on their needs, abilities, and interests." Teacher A2 stated the following:

I think the students in the classroom can be divided into three categories: high achievers, medium achievers, and low achievers. To help these groups of low- and medium-achievers move up to the level of high-achievers, a unique curriculum called CD should be created based on their ability levels. When teachers assign CDs to low- and medium-achievers, it also benefits high achievers to have extra activities and avoid idleness.

Teacher A2 stated that CD is a way to help low- and medium-achieving students reach their full academic potential by raising their achievement levels from where they currently are. Since high-achiever groups have already attained high-achievement status, Teacher A2 believes that CD is not necessary for them. In this instance, talented and gifted students were seen as high achievers. Teacher A2 did not consider students who achieved a medium level in school to be exceptionally talented.

Teacher B4 views, "CD is not a one-size-fits-all approach because students are diverse in their abilities. It is simply the provision of groups of students with special curricula on the basis of their talents and knowledge as well as the needs of society." Besides, Teacher B4 explained that there is no special curriculum in Ethiopia designed for specific groups of students on the basis of their talents, though university differentiation discourse exists at the higher education level. Teacher A5 also stated that "In my view, some groups of students are fast learners who are capable of understanding things easily, whereas others are medium and slow learners who are not. So, CD is a special type of curricular practice for groups of medium and low learners."

Curriculum Differentiation as Identification and Accommodation of Gifts and Talents

Another conceptualization of CD that arises from teachers and principals' responses is that one of CD's qualities is its capacity to recognize exceptional talent and giftedness and to maximize each person's potential for innovation and the advancement of society. Principal B addressed this

issue by saying, “Identifying students who are intelligent and employing a variety of strategies to accommodate these unique intelligences can foster students’ creative abilities instead of concentrating on content coverage.” Teacher B3 explained that “when I refer to a student as gifted or talented, it goes beyond just their academic performance; it is more than that.” Teacher B3 noted that students assigned to special day and boarding secondary schools are selected based more on their academic performance in subject areas than on the recognition and support of their exceptional giftedness and talent, which is why the practice of CD is not yet practiced in Ethiopia.

Teacher B1 argued that “even though Ethiopia does not currently have mechanisms for identifying talent or giftedness, creating institutions where students can showcase their abilities is a solution.” Because gifted and talented students are not accommodated in the current curriculum, Teacher B1 believed that one of the major causes of poor learning outcomes at the national level is the absence of CD based on the identified needs of gifted and talented students. Teacher A6 added:

In my understanding, all students are not equally gifted or talented. Those students who are naturally gifted and talented learn, understand, and remember things easily without much effort, whereas those who are not gifted or talented exert much effort to learn things. Therefore, CD is identifying the giftedness and talents of students and then matching the curriculum with their exceptional abilities.

Curriculum Differentiation as Curricular Planning and Teaching Strategy

Participants under this theme stated that they were not aware of the issue of CD in their previous careers, but they guess CD is the application of different time allotment, teaching, and curriculum planning strategies to operate an education system. Principal A explained that “there are subjects offered to students one period per week [e.g., health and physical education and technical drawing], three periods per week [e.g., natural science], and five periods per week [e.g., English].” The principal explained that “CD is how much weight the subjects have in terms of time allocation and the focus of the school curriculum on different disciplines or subjects. This difference in subjects’ period allocations could be conceptualized as CD.” Teacher A4 mentioned that:

Although I’m not exactly sure what CD entails, I believe it involves creating a physics curriculum based on the general education curriculum, an annual plan derived from the physics curriculum, and a lesson plan derived from the annual plan. Each of these then goes on to detail what teachers do.

Furthermore, Teacher A10 thought that “CD is curriculum change when one government of a country is changed by another government so as to respond to all students’ common needs.” Teacher A8 added that “CD, in my point of view, is designing curriculum based on the context of a country and applying it accordingly. It is also updating it after years of implementation and evaluation of its impact.” Teacher A11 also argued that “CD is the development of one’s country’s national curriculum by professionals ranging from curriculum documents through textbooks and syllabuses to teacher’s guides for students’ learning. Then, professionals make such a common curriculum adapted to the local contexts of different regional states.” Teacher B6 stated the following:

In my opinion, the contents of the common curriculum are too difficult to learn for some students or too easy to learn for others. Then, CD might make the common curriculum relevant for all students based on every student’s level of knowledge aligned with the current economic and social developments and the existing contexts of a country. Students’ specialty through CD has to be aligned with the country’s economic development plan. Thus, these students could be change agents for the country’s development.

Discussion

Ethiopia's ETP and the national GECF explained the intentions of CD as part of the general education system without a clear link with higher education or further studies. They stipulate CD as different tracks for general education students, whereas the national Guidelines for CD and IEP explained the intentions of CD explicitly as a compulsory practice of the general education system to be implemented in inclusive classrooms. Indeed, these two sets of aligned policies have been revised in the last 6 years by the current government, but the Guidelines for CD and IEP have not yet been revised. This implies that the Guidelines for CD and IEP may require revision to ensure alignment among them because incoherent conceptualizations of CD presented in national education policy documents may lead practitioners (e.g., school principals and teachers) to be confused in their conceptualizations and practices of specific types of CD.

The ETP and the GECF outline different types of placement for students in Grades 11 and 12, such as in the social and natural sciences stream and career and technical education fields of study. The documents also state the need to place gifted and talented students based on their individual needs and abilities. The GECF also proposes that gifted and talented students will be placed in special schools for Grades 9 through 12 (MoE, 2020). Overall, the ETP and the GECF intentions suggested student placements into natural sciences and social sciences streams, as well as into various fields of study and regular, special day, and boarding school types. Hence, streams, fields of study, and school types refer to these as CDs (Hallinan & Kubitschek, 1999; LeTendre et al., 2003; Perry & Lamb, 2017; Smyth, 2017; Terwel, 2005). On the other hand, the Ethiopian National Guidelines for CD and IEP give emphasis on placing mixed-ability students in inclusive classrooms to meet their diverse learning abilities through differentiation of curriculum components such as contents, instructional processes, assessment strategies, and learning environments. This way of differentiation of curriculum components is a different type of CD conceptualization (Eikeland & Ohna, 2022; Ireland et al., 2020; Reis & Renzulli, 2015). It appears that the guideline addresses a limited aspect of CD and deserves to be aligned with the different types of CD proposed in the other policy documents and the current research and framework on CD.

The aforementioned findings illustrate that there are diverse ways of conceptualizing CD in education policy documents, and principals' and teachers' conceptualizations of CD also take different forms, which at times are completely different from policy intentions. Principals and teachers' conceptualizations on CD fall under five themes: (1) CD as gifted programs and conceptualization of giftedness; (2) CD as student placement into subjects, streams, and schools; (3) CD as special curriculum for groups of students; (4) CD as identification and accommodation of gifts and talents; and (5) CD as curricular planning and teaching strategy.

The conceptualizations of CD under theme 1 reflected that every student in a classroom has unique talent or giftedness, at least in one area of multiple intelligences. Working only in the academic area benefits some groups of students who are gifted in academic areas but ignores other groups of students who have giftedness and talents in other multiple areas. Thus, the conceptualization of CD under theme 1 is that CD is the program of every gifted and talented student to differentiate curriculum components in inclusive classrooms. This conceptualization is consistent with the CD view of Gardner's (1983) theory of multiple intelligences and the CD conceptualizations of the national Guidelines for CD and IEP (MoE, 2012). On the other hand, the CD conceptualizations under theme 2 clearly favor student placements into different school types, fields of study, streams, and groups of students into subjects that are consistent with the Type 1, Type 2, Type 3, and Type 4 CD conceptualizations stated in the theoretical framework section (LeTendre et al., 2003). These conceptualizations of CD are also aligned with the intentions of Ethiopia's ETP and the GECF (FDRE, 2023; MoE, 2020).

Theme 3 is the provision of specially designed curricula for gifted and talented students and groups of medium and low academic achievers. The conceptualization of theme 4 indicated that CD is the identification and accommodation of gifted and talented students. However, the accommodation strategies might be either individual or group. The fifth theme illustrates the standard curriculum development processes rather than the conceptualizations of CD. This conceptualization originated from a lack of awareness of CD. For example, the conceptualization of CD as periods or contact hours allocation for different subjects and as curriculum reform due to government changes. It appears that theme 5 is completely different from all the national educational policy intentions.

It appears that teachers' and principals' conceptualizations of CD focus on addressing the needs of gifted and talented students with little consideration for other students with special educational needs. In addition, similar to the different types of intentions among the three policy documents, principals and teachers conceptualize CD as tracking of students (education policy and curriculum framework documents) as well as differentiating curriculum components in inclusive classrooms (the guidelines of the CD and IEP document). Hence, at a broader level, both tracking between classes or schools and differentiating within inclusive classes where curriculum components are differentiated are the main conceptualizations, although the lack of awareness about CD and the focus on gifted students were highly visible. Though both policy intentions and principals and teachers consider giftedness to be different from high achievement in examinations, the practice, however, appears to confound high achiever, talented, and gifted students as there is no system in place to identify such students.

Conclusions and Implications

In the last 6 years of secondary education reform in Ethiopia, on the one hand, field of study, stream, and school type differentiations have all been incorporated into the GECF, and the ETP intends to be implemented in separate tracks. On the other hand, the national Guidelines for CD and IEP, which was developed prior to this decade, included differentiation of curriculum components to address students' varied needs in inclusive classrooms. This implies the need to align policy intentions on CD, although this does not mean that inclusiveness and tracking cannot be adopted in an education system. As there are considerable theoretical debates for or against each, it is essential to have policy coherence on CD. Secondary school principals' and teachers' conceptualizations of CD revealed a lack of awareness about CD and both consistency and inconsistency with policy intentions. The differences in the conceptualization of CD remain a subject of further study with a large number of participants.

Although the education and training policy and curriculum framework set out the provision of appropriate education for students with special educational needs, including talented and gifted students, there is not much clarity about what this means other than the tracking of students in Grades 11 and 12 and the setting of special schools. The curriculum framework should at least operationalize CD so that actors have clarity in order to implement the intentions on CD. The curriculum, management, and conceptualization of talented and gifted students, as well as the way they will be selected by schools and how they will pursue their further education or careers, must be outlined. Without such articulation, practitioners in schools could take different paths and influence the implementation of policy intentions.

Streaming students into the natural sciences and social sciences tracks and organizing identical subjects for all students in the two streams is too uniform to meet the diverse needs and abilities of students. Within the natural sciences, students may have different interests, abilities, and skills in computer science, physics, mathematics, biology, or others. Therefore, offering a natural

science option does not adequately address the diverse needs and emerging developments in secondary education. Within the natural sciences, secondary school students should be offered the opportunity to learn different subjects or the same subjects with different levels of difficulty so that not all natural science students have to take the same subjects with the same levels of difficulty. This requires designing computer, physics, mathematics, or other science subjects with varying levels of difficulty (for example, basic, advanced, or college level) and depth of content. The same applies to social science students. In addition, secondary education should provide opportunities for other areas such as the arts and music. Students with such interests and abilities do not have the opportunity to further develop their knowledge and skills after primary school because there are no such branches and subjects in Ethiopian secondary education. Due consideration should also be given to the needs of average students who prefer to study vocational subjects, as the subject requirements for such students may not be the same as for other students wishing to study at universities.

Such a differentiated curriculum requires flexibility in secondary school assessments and examinations. In summary, secondary school subjects and available tracks should be flexible and diverse, both in terms of content difficulty and type, so that students can study subjects and fields based on their interests, abilities, and career aspirations. Curriculum differentiation is more than accommodating and feeding students or providing students with better human and physical resources. The structure of the secondary school curriculum (variety in depth, type, and flexibility), student selection, and school administration should be clearly formulated to meet the needs of students.

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About the Authors

Kagnew Tarekegn

University of Gondar

kagnew.tarekegn@aau.edu.et

<https://orcid.org/0009-0007-3290-0301>

Kagnew Tarekegn is an assistant professor in the Department of Special Needs and Inclusive Education at the University of Gondar. He holds a Master of Education Degree in Special Needs Education from Addis Ababa University, and a Master of Arts Degree in Social Psychology from the University of Gondar. He has published articles in local and international peer-reviewed journals. His research interests include curriculum differentiation, curriculum for students with special educational needs, and inclusive education.

Dawit Mekonnen Mihiretie

Addis Ababa University

dawit.mekonnen@aau.edu.et

<https://orcid.org/0000-0002-5279-7926>

Dawit Mekonnen Mihiretie (PhD) is an associate professor in the Department of Curriculum and Instruction at Addis Ababa University. He teaches graduate program courses in teacher education, curriculum development and curriculum implementation and comparative teacher education and curriculum. He also advises PhD students. He has worked on various national and international projects in teacher education, quality education, and early grade literacy. He is the author and co-author of numerous articles and book chapters in various local and international peer-reviewed journals. His research interests include teacher education, curriculum development, curriculum understanding, curriculum for nation building, and curriculum and identity.

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Please send errata notes to Jeanne M. Powers at jeanne.powers@asu.edu
