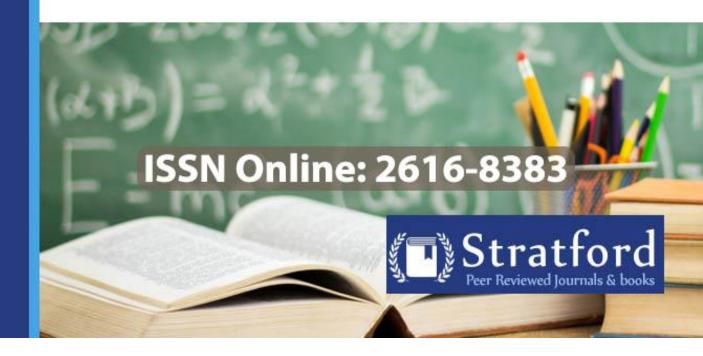# No Learner Should Be Left Out: A Systematic Review of Perceived Effects of Inter Class Cognitive Classroom Streaming in Secondary Schools in Sub Saharan Africa

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No Learner Should Be Left Out: A Systematic Review of Perceived Effects of Inter Class Cognitive Classroom Streaming in Secondary Schools in Sub Saharan Africa

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Abstract

Inter-class cognitive classroom streaming has been one of the most contentious and divisive educational issues and practices. It is associated with negative outcomes, such as excluding other learners, lowering low-performing learners' self-esteem and confidence, and u3ltimately leading to a loss of interest in learning. However, research on its non-academic effects, such as its impact on learners' psychosocial well-being, is still limited, particularly in developing countries such as Uganda and South Africa. In addition, there are still few systematic reviews that can provide a comprehensive synthesis of the available information in the context of Sub-Saharan Africa. As a result, this review investigates not only the effects of inter-class cognitive classroom streaming in secondary schools, but also the learners' psychosocial well-being, with the goal of informing intervention strategies into the practice in order to reduce its negative outcomes. The systematic review was guided by the Frame of Reference theory. This conceptual paper employs a systematic review approach, with Google Scholar and Scopus Database search engines used to locate peer-reviewed articles from journals, conference proceedings, and book chapters relevant to the research. A mix of journal articles, conference proceedings, and book chapters published between 2008 and 2023 were considered for the study based on specific inclusion and exclusion criteria. The paper covered the following topics: the history of inter-class cognitive classroom streaming in Sub-Saharan Africa, the effects of inter-class cognitive classroom streaming, best practices for effective Cognitive Classroom streaming implementation, and intervention strategies to mitigate the practice's perceived negative effects. The study found that inter-class cognitive classroom streaming undermines the inclusion of students with learning disabilities, negatively impacting their emotional and psychological well-being and, as a result, deteriorating their academic performance. Teaching and learning should increase student engagement, regardless of cognitive abilities, and improve academic achievement while encouraging meaningful learning experiences and positive learning environments.

Keywords: *Cognitive-Based Classroom Streaming, Learner, Secondary Schools, Sub-Saharan Africa*

1.0 Introduction

Cognitive-based classroom streaming (CBCS) is viewed as the same as ability grouping, in which learners are assigned to different learning environments based on their academic achievement or performance. CBCS is an ability practice in which learners are grouped for teaching and instruction based on capability or accomplishment to reduce diversity (Marumo & Mhlolo, 2027; Lewis & Doorlag, 2005). In South Africa, it is determined whether students are high or low achievers (Marumo & Mhlolo, 2017), and it is particularly used to group students based on their performance in subjects such as Mathematics. In Uganda, it is a practice used in some schools regardless of subject (Babirye, 2019; Odongo, Wandera & Kobusingye, 2021; Karuhanga, Chama, Bantu, Tibesasa & Turyasingura, 2023). This results in learners of the same grade being subjected to different treatments, with some remaining in the same grade for years, being placed in groups where they receive different assignments than others, and being expected to stay in those groups. We believe that such a grouping contradicts the United Nations' Sustainable Development Goal Four, which calls for quality education for all (Pailman & de Groot, 2021), as well as the 'Agenda 2063' for the Africa We Want. Further, it appears to contradict the principles of inclusive education, which advocate for students to be exposed to the same learning environment without discrimination based on cognitive ability, gender, race, age, culture, language, religion, or socioeconomic status. It is well documented that CBCS promotes biases and prejudices when teachers' expectations and syllabi coverage differ, resulting in the labelling of learners (Hove, 2022). There are also those who believe that learners are streamed based on their socioeconomic status or contextual background because they automatically fall into the category of learners with learning barriers who are considered to have special needs.

For the purposes of this systematic review, CBCS refers to the grouping of learners based on academic achievement, excluding other learners with low cognitive ability. However, there is a global movement, led by Human Rights watchdogs, to promote inclusive education in order to achieve quality education for all, justice, and equity (Wergeland, Fjermestad, Marin, Haugland, Bjaastad, Oeding, & Heiervang, 2014; Hove, 2022). Therefore, this review also examines interventions and strategies that can be implemented to ensure that no learner is left behind. With the existing gross competition among schools, the adoption of cognitive-based classroom streaming (CBCS) and seemingly similar ability practices has become unavoidable in order to reactivate and sustain educational standards (Odongo, Wandera, and Kobusingye, 2021). The basic rationale for CBCS is to help instructors rethink their pedagogical approaches and styles, as well as to free up more time for academically and cognitively challenged students (Ireson & Hallam, 2009). However, the emphasis on students' academic growth has unintentional negative effects on their psychological and social characteristics of social interaction and relationships, as well as self-esteem, which can undoubtedly account for a deterioration that, in the long run, causes shame, inferiority feelings, and complexes, isolation, and depression, which can further impede their already dwindling academic progress and achievement. While many studies have been conducted on the effect of CBCS on academic achievement (Okello, 2019; Odongo, Wandera, & Kobusingye, 2021; Babirye, 2019; Karuhanga et al., 2023), those that have focused on its non-academic effects, such as those that affect learners' psychosocial wellbeing, are still scarce in Sub-Saharan Africa, particularly in Uganda and South Africa. As a result, the purpose of this chapter is to investigate the effects of CBCS on secondary-level learners, as well as its psychological and social consequences, in order to propose intervention measures to mitigate its negative effects and ensure

that no learner falls behind. This chapter's discussion is guided by the following themes: the history of inter-class cognitive classroom streaming in Sub-Saharan Africa, the effects of inter-class cognitive classroom streaming, and interventions and best practices for effective implementation of Cognitive Classroom streaming.

The study's empirical research findings may help educators understand the non-academic effects of CBCS on students. An in-depth examination of the effects of cognitive-based classroom learning may also help school administrators gain a clear picture of the challenges associated with this practice, allowing them to incorporate other appropriate strategies for dealing with students. It may assist teachers in adopting and implementing more effective student-management strategies. Teachers, who implement the majority of educational practices in schools, may find this study useful in gaining a better understanding of the psychological and social impact of CBCS and making necessary adjustments. Many parents struggle with the decision between being at the top of the middle category track and being at the bottom of the top category track (Alpert & Bechar, 2008). This chapter may emphasize the importance of sincere dialogue between school administrators and parents about how to best implement the practice without negatively affecting the learners' psychological and social well-being, which, if not handled properly, can have a negative impact on academic performance. This chapter may provide policymakers with data for developing evidence-based policies that enable and build a healthy school environment in which students can thrive not only academically, but also psychologically and socially. Lastly, what students experience at school influences how they perceive themselves, particularly in terms of ability. Further, the chapter may help them develop a sense of self-worth and overcome the inferiority complex caused by CBCS.

This chapter was guided by Byrne's Frame of Reference Theory (1988), which states that a learner compares, measures, and compares his or her ability to that of others. If a learner is surrounded by high achievers, his or her self-concept may suffer; however, if they are surrounded by low achievers, their academic self-concept may improve (Marsh, Seaton, Trautwein, Lüdtke, Hau, O'Mara & Craven, 2008). The theory emphasizes the relationship between ability-grouped classrooms (environment), students' beliefs about their abilities (psychological factors), and their classroom behaviours (social factors). However, the theory can be criticized for relying solely on interpersonal rather than intrapersonal factors to drive self-evaluation, which is the primary focus of this study.

2.0 Research Methodology

The systematic review analyzed published studies from 2008 to 2023, as the authors believe that understanding CBCS (Cognitive-Based Classroom Streaming) and its effects and best practices requires a detailed review of related literature. By comparing existing literature, the reviewers aimed to construct a viable understanding of CBCS as both a phenomenon and a practice. The reviewed literature spans diverse geographical areas, predominantly from developed countries like the UK, although CBCS has also been practiced in South Africa in the past and is currently in Uganda. The literature from quantitative, qualitative, and mixed-method studies in more developed regions informs the effects and best practices of CBCS. These studies were sourced from Google Scholar, an easily accessible search engine that does not require login and enables citation preservation. Keywords used in the search included cognitive-based classroom streaming, ability grouping, ability practices, best practices, and mixed ability. Ability grouping and CBCS were

treated as synonymous. To avoid confusion, the reviewers focused on homogeneous rather than heterogeneous grouping. Most of the reviewed literature came from peer-reviewed journal articles, with a smaller portion from dissertations and newsletters. The review was not conducted chronologically but rather focused on the main objectives. Research spanning the past decade was explored, with the latest study being a 2023 publication. The reviewed works included journal articles, newsletters, and Master's dissertations on CBCS, collectively from the UK, USA, and Africa (South Africa and Uganda).

3.1 Results

3.1.1 History of Inter-Class Cognitive Classroom Streaming

Grouping and categorizing students based on their cognitive and academic potential is a widely used and popular practice in educational institutions worldwide. Grouping learners based on ability has been practiced for a long time around the world, and students were identified, classified, and assigned to different schools based on their abilities. Globally, for example, in the twentieth century United States of America, it was introduced to meet parental demands, children's performance needs, and other life needs (Ireson, Hallam, & Plewis, 2001; Hove, 2022). It was initiated and exacerbated by the Industrial Revolution, and parents desired that their children excel academically (Hove & Phasha, 2022). CBCS is known as tracking in the United States, and streaming in the United Kingdom (UK). In the United Kingdom, CBCS was used to categorize learners based on their ability performance. It was believed that CBCS in the UK was necessary because it positively impacted the academic growth of all learners while striking a balance between high performers and low-ability learners, each at their own pace without delaying the academically gifted or putting pressure on the low performers.

In Africa, cognitive-based classroom streaming (CBCS) or ability grouping was implemented to address students' academic challenges and raise learning standards (Ansalone, 2010; Betts, 2011; Catsambis & Buttaro, 2012). The proponents of CBCS hoped that the new practice would bridge the academic achievement gaps between different categories of students (Collins & Gan, 2013; Ansalone, 2010; Pierce, Cassady, Adams, Speirs, Dixon & Cross, 2011; Stipek, Newton & Chudgar, 2010). Individualized teaching and intuitive team building can help, but it should be noted that doing so unconsciously jeopardizes their psychological and social lives. In South Africa, for example, CBCS was visible in the type of schools established to accommodate learners with disabilities (placed in special schools) as well as mainstream or regular schools where learners without disabilities were placed (Hove, 2022). It was believed that students with exceptional needs could not cope in traditional and established classes due to methodologies and pedagogies that were not accommodating to them but were biased toward learners without disabilities. According to the literature, learners with disabilities were separated from those without disabilities (Hove, 2022). It is also documented that the latter were further grouped or streamed into ability groups within the same classroom or across classes within the same grade (Yee, 2013), resulting in within-classes and between-classes. CBCS was used to group students who had similar characteristics in terms of performance or challenges so that teachers could identify their needs and provide the necessary assistance (Hove, 2022). For example, in Zimbabwe, ability grouping is used to help teachers deal with students who appear to have similar patterns of academic performance. In addition, Kenya and Ghana practice ability grouping based on preferred learning style. As a result,

it is influenced by individual differences (Gyamfi, Langee, Yeboah, Aboagye & Erzoah, 2022; Westbrook, Durrani, Brown, Orr, Pryor, Boddy & Salvi, 2013).

This practice has been linked to discrimination, particularly in East African and Ugandan settings (Karungi, 2016). Even though it has been shown to increase group cohesiveness (Rees, Brewer, & Argys, 2000), it also affects the ability to form friendships (McGillicuddy, 2021; Okello, 2019), particularly among children and adolescents. Grouping learners based on their cognitive abilities may result in isolation and perceived neglect (Futrell & Gómez, 2003; Hall, 2014). Uganda's Education Policy has evolved to address the challenges of learning and achieving the educational Sustainable Development Goal (SDG). However, the adaptation and implementation of cognitive-based classroom steaming has been more detrimental than beneficial due to the numerous potentials and actual social, psychological, emotional, and academic challenges associated with it (Palmer, Maramba & Dancy, 2011). The practice has been in place in Uganda, particularly in urban schools, since the early 2000s, and while it has partially resulted in grade improvement, it has also been blamed for the subsequent psychosocial effects on not only the learners but also their parents (Mahuro & Ngora, 2016; Muwumba, 2014; Kamwine, 2012).

According to (McCarter 2014), CBCS is a practice that involves categorizing learners based on their previous academic competencies and abilities. Most proponents of this practice, such as Spina (2019), argue that school ability practices like CBCS protect low-ability students from unnecessary stressful competition that could harm their self-esteem. In the same vein, Trautwein, Lüdtke, Marsh, Köller and Baumert (2006) claim that high-achieving students are highly motivated and have their self-esteem boosted by practices like CBCS. However, psychologists disagree on how they perceive the impact of CBCS on learners, arguing that assigning learners to specific tracks based on their cognitive abilities influences what they believe about their motivation and potential (Archbald & Keleher, 2008). Fung and Chi (2012) argue that, surprisingly, such practices subject high-achieving students to increased competition, which harms their self-esteem and self-worth. Low-achieving learners, on the other hand, unconsciously focus on their flaws rather than their competencies as a result of CBCS, lowering their self-esteem (Siu & Tse, 2012). Preckel, Schmidt, Stumpf, Motschenbacher, Vogl, Scherrer and Schneider (2019) find that most low-self-esteem learners perceive themselves as incompetent, which affects their social interaction with other learners. They avoid situations where they might be subjected to public scrutiny and evaluation (Jung & Worrell, 2017; Mansor, Maniam, Hunt & Nor, 2016).

According to Spina (2019), the practice is intended to protect slow learners from aggressive competition while also preserving their self-esteem, which would otherwise be compromised if they were placed in high-grade settings. While some researchers, such as Nabayunga (2013), would disagree with such a justification, they argue that any form of classroom discrimination would have a negative impact on learners, not only in terms of performance but also in terms of affective self-worth. Cognitive-based classroom streaming enables instructors to target learners' specific instructional needs (Collins & Gan, 2013). This is supported by (Ansalone, 2010) and (Pierce et al., 2011), who argue that such ability practice can improve learner participation and, in the long run, lead to higher grades. So, any ability practice that improves performance at the individual, class, and school levels is justified because it closes the academic achievement gap between low and high achievers (Okello, 2019).

It is documented that the practice of ability grouping began to lose traction in the late 1960s because it was perceived as promoting segregation, discrimination, and isolation of learners (Loveless, 2013). Kelley (2018) also observes that the practice of ability grouping promoted segregation and discrimination of races, resulting in two educational systems within one country. This means that two curricula were offered. For example, during the apartheid era in South Africa, Black Africans had a system of education known as 'Bantu education', which was inferior to the type of education offered to Whites, who had a curriculum that never allowed them to compete with Blacks. Other governments, particularly in Africa, used race to group learners rather than the Intelligence Quotient (IQ), which explains why the system was condemned (Kelley, 2018). It should be noted that calls to abolish ability grouping became louder and stronger because ability grouping promoted traditional teacher/content-centered methods that removed the learner from the center stage of teaching (Hove, 2022; Kelley, 2018), cognitively disfavoring them. New approaches to learning and teaching advocate for pedagogies that engage learners and treat each learner as a unique entity; thus, learner/cognitive-centered methods should be prioritized.

Given the picture painted above, it is clear that in Africa, ability grouping was associated with racial rather than IQ-based segregation, which created the need for and calls for the decolonization of education in Africa. Learners in Africa, particularly in South Africa, protested the educational system and how it was delivered, resulting in the "Rhodes Must Fall" and "Fees Must Fall" campaigns. These were calls to dismantle education, demanding an all-inclusive education (Hove, 2022) and subjecting everyone to the same educational practices regardless of ability, socioeconomic status, color, creed, race, age, gender, political and religious affiliation (Kirillova & Ibragimov, 2016). These changes did not occur in Uganda, so the practice continues, albeit unofficially and unrecognized by Uganda's Ministry of Education and its educational partners. These calls in South Africa also resulted in the abolition of ability groups. However, in some countries such as New Zealand, America, the United Kingdom, and some African countries, including democratic South Africa, ability grouping is used to identify learners who require additional support or assistance in order to progress academically (Anderson & Oakes, 2014; Spratt & Florian, 2015; Hove, 2022).

3.1.2 Effects of inter-class Cognitive Based Classroom Streaming

Psychologically, Bolick and Rogowsky (2016) see inter-class cognitive-based classroom streaming as an institutional strategy that places students in groups based on their academic and cognitive abilities, which is consistent with Preckel et al. (2019) and Anthony, Hunter and Hunter (2016). However, Hastie, Brock, Buchanan and Moore (2023) define it as the practice of assigning students to different classrooms based on their previous and current academic ability. Walker (2015) defines it as when a stream is created to accommodate students of comparable academic competence, with ability serving as the justification rather than age and chronological level. It can be argued that the implementation of cognitive-based classroom streaming in higher levels of education is a prejudiced practice that is detrimental to not only the academic but also the holistic well-being of the students (Anthony & Hunter, 2017). While it may boost high-performing students' self-esteem, it may also lower the same psychological traits in low-performing and mediocre student categories (Shield, Greenland & Dockrell, 2010). Although this effect is more profound in younger students, it also affects adolescent and older students, such as those in high school (Zaman, Geurden, De Cock, De Schutter & Abeele, 2014).

In the same vein, Ramberg (2016) contends that ability grouping promotes issues that the world is grappling with, such as inequality, the demand for equal educational rights for all learners, social injustice, and racism. This implies that teachers will treat students differently, and learners in low-performing cohorts may have fewer opportunities for knowledge sharing, socialization, and motivation. Psychologists such as Lev Vygotsky's part and his Socio-Cultural Theory discuss the Zone of Proximal Development (ZPD), where a learner can master, be knowledgeable, and reach the highest level with guidance and encouragement from a more knowledgeable learner, resulting in peer teaching and learning (Shabani, Khatib & Ebadi, 2010). It can be inferred that ability grouping denies learners in low-achieving groups the opportunity advocated for by ZDP. Furthermore, such learners behave in accordance with the labels assigned to them, i.e., low performers (Hove, 2022) and have a self-fulfilling prophecy (Alavi, Kaivanpanah & Shabani, 2012). Matavire, Mpofu and Maveneka (2013) argue that, while ability grouping allows learners to progress academically at their own pace, it disadvantages learners labeled as underperformers because resources, attention, and motivation are directed toward high performers. According to Ginsburg (2016), cognitive-based inter-class ability grouping causes low achievers to perceive themselves as worthless (Alavi, Kaivanpanah & Shabani, 2012), which promotes stress, depression, and low self-esteem. Academic self-concept is also reduced, primarily as a result of reference-group factors (Seaton, Marsh, & Craven, 2009). Students assigned to low tracks may receive lower-quality instruction than other groups. This causes a gap in knowledge and skills, which may affect the personal interpretation of their self-worth, academic self-efficacy, and self-esteem (Preckel, Goetz, Pekrun & Kleine, 2008). However, regardless of ability, all students deserve equal treatment (Gregg, Sedikides & Gebauer, 2011). Homogenous grouping can negatively impact slow learners and underachievers, leading to low self-esteem, high stress levels, depression, isolation, and inferiority complexes (Vogel and Biesheuvel, 2010; Heltemes, 2009).

Students' self-concept is negatively impacted by cognitive-based classroom streaming (Makel, Lee, Olszewski-Kubilius & Putallaz, 2012) due to the associated stigma and discrimination against low-achieving groups, which may further aggravate their motivation and drive in learning (Mantle, 2013), whereas the same type of grouping will give high-achievers an overinflated and inflated sense of self-worth, which may surprisingly and unintentionally lead to their academic decline. As a result of the effect of class placement on learners' self-image and self-concept, it is not surprising that existing ability practices also have an impact on their motivation, belief, and self-worth (Moore & Smith, 2018). In a study conducted by Tsai, Chi, Grandey and Fung (2012) on the relationship between streaming, self-esteem, mood problems, and coping strategies among secondary school students in North Korea, it was found that students in high-ability class streams had higher levels of self-esteem than students in low-ability class streams. However, the same study found that high-ability students use more emotional and problem-solving coping strategies than students in regular classes. Overall, the study findings revealed that ability grouping has a positive effect on the self-esteem of not only low-ability groups, but also high-ability groups in a counterproductive way, which should inform educational best practices.

In Marsh and O'Mara (2010) study on the reciprocal effects between academic self-concept, self-esteem, achievement, and attainment, it was discovered that on the contrary, homogeneous grouping does not expose low cognitive ability learners to anxiety and tension because they tend to compare their achievement with those within their cohort, resulting in the growth of self-worth and improvement in their intra-group self-esteem measures, which ogres well with the Big Fish

Little Pond If learners are treated as a homogeneous entity despite cognitive differences and given much-needed mentoring, they are more likely to adopt appetitive adaptive behavioral tendencies (Mansor et al., 2016). Furthermore, (Becker, Neumann & Dumont, 2017) strongly asserts that ability grouping causes students to compare themselves to others, which is a very tempting trap that they usually fall into when ability grouping. It is easy to fall into the trap of comparing oneself to others, which harms learners' self-esteem (Francis, Taylor, & Tereshchenko, 2019). In Malaysia, Kususanto, Ismail and Jamil (2010) found a significant difference in self-esteem between high-achieving and low-achieving learners. Learners in low-achieving groups, in particular, viewed and perceived the teaching styles they were exposed to as teacher-centered or content-focused. Similarly, CBCS is a social injustice to students' self-esteem and perceived academic self-efficacy (McCarter, 2014).

In terms of life skills, Nomi and Allensworth (2010) emphasize that ability grouping creates a gap. Furthermore, authors such as Orth and Robins (2022) show that learners placed in lower groups perform poorly on life skills such as self-efficacy, self-esteem, attitudes toward academics, and related attributes when compared to those in higher tracks. Further, Auerbach, Webb, Gardiner and Pechtel (2013) observe that high-ability learners develop confidence, which improves their self-worth measures, whereas low-ability learners become marked by demoralization, lowering their feelings of self-esteem, which in the long run leads to delinquency, impulsivity, risky behavior, and suicidal ideation. Willingham (2008) observes, from an intervention standpoint, that high-ability classes require more competent teachers, but that inadequate teacher allocation for specific classes may lower the disadvantaged group's self-esteem.

According to studies, ability grouping is harmful to many students and hinders their development in interpersonal relationships and friendships (Preckel, 2019). It undervalues social values and contributes to a stratified society (Henry, 2015). There are effective and practical alternatives to addressing academic challenges faced by students that do not exacerbate pre-existing social problems (Hodum, 2016). Ciesielski et al. (2014) found that gifted high school students have higher levels of social acceptance and psychosocial adjustment. Kelley (2018) notes that cognitive-based classroom streaming has a negative impact on friendship formation, particularly among young adults. He also observes that ability grouping undermines students' social interaction, life skills, and soft skill development. He believes that high-achieving students form friendships with other high achievers. The opposite is true for underachieving students. The latter feel isolated and segregated (Nomi & Allensworth, 2010), and they are under pressure to perform (McGillicuddy, 2021).

Ability grouping may result in social stigma and discrimination (Wai & Worrell, 2016). This practice promotes social injustice and subjects' learners to social inequality (Makel et al., 2012; Gallagher, Smith, & Merrotsy, 2011), while advocating for heterogeneously grouped settings that can strengthen learners' social development. Catsambis, Mulkey and Crain (2001) discovered that there are gender differences in both the high and low reading levels. After assigning over 20,000 kindergarten students to reading ability groups, some had more boys than girls, while others had more girls than boys. These statistics show that gender inequalities exist as a result of cognitive-based classroom streaming, which facilitates friendship formation as a social skill. Kintz (2011) conducted a study on ability grouping and observed a disparity between students in high and low homogeneous groups. The study concluded that homogeneous grouping has a negative impact on both upper and lower academically grouped learners for a variety of reasons. Students spend a lot

of time with people of similar ability, which exposes them to fewer challenges (Véronneau, Vitaro, Brendgen, Dishion & Tremblay, 2010).

According to Jung and Worrell (2017), low-ability groups are frequently stereotyped, receive less rigorous instruction, and consistently associate with those in their classroom. Unfortunately, they become less motivated toward achievement and growth over time (Heltemes, 2009), which becomes an impediment to participation in school activities. Cognitive-based classroom streaming separates and neglects students, particularly those with low abilities (Gentry & MacDougall, 2007). Seasoned and more experienced instructors would prefer to teach more intelligent students, leaving their less experienced counterparts to instruct lower-ability learners (Lleras & Rangel, 2009), resulting in lower-quality education. Such practices cause students to socially detach from their peers (Kususalo, 2010). Researchers such as (McGillicuddy & Devine, 2018) agree that this practice exacerbates social inequality and isolates learners as low-performing students begin to view themselves as outcasts, incompetent, and unwanted (Fendler & Muzaffar, 2008).

3.1.3 Interventions and Best Practices for Cognitive Classroom Streaming

Treating learners as a single group, despite differences in academic ability and achievement, boosts not only their self-esteem but also fosters a sense of community, both of which are necessary for academic progress and achievement (McGillicuddy & Devine, 2018). Learners' experiences with CBCS have a significant impact on their social comparisons. Low-ability category learners begin to perceive themselves as outliers, which leads to feelings of isolation (Alpert & Bechar, 2008). Ability grouping influences students' social interaction on both micro and macro levels (Fendler & Muzaffar, 2008). According to Preckel et al. (2019), learners can develop their life skills by copying productive behavioral tendencies from their contemporaries, which can only be accomplished if they are placed in heterogeneous groups. School-based practices aimed at teacher/mentor-student/mentee pairing emphasize relationship-building between learners and instructors, goal setting, and academic guidance to improve students' self-esteem, interpersonal relationships with others, and reduce mood disorders such as depression (Wang, King & McInerney, 2023). Similarly, school programs at all levels that focus on improving self-esteem through short classroom-based sessions have a positive impact on students' measures of that life skill, thereby reducing aversive behaviors and strengthening peer connections. Ability grouping eliminates the possibility of lower-ability students' self-esteem being lowered as a result of having their work compared to that of higher-ability counterparts in a mixed-ability classroom setting.

According to Odongo, Wandera and Kobusingye (2021), students in a cognitive-based classroom stream must be educated on the rationale for ability practice, and all students must be treated equally regardless of placement. Guidance is required for both students and parents, as the latter are also affected by the psychological and social effects of the secondary level practice. Teaching and learning, whenever possible, should be personalized in addition to CBCS practices, with the former supplementing the latter at specific times in the school calendar. Co-curricular activities should be implemented to provide time for students from various academic groups to interact socially in a non-academic environment in order to improve social interaction and explore their non-academic potentials and abilities, which can boost self-esteem and other intra-personal and interpersonal characteristics. It would also be beneficial to practice CBCS in a diverse setting so that there is no need for grouping but rather an adjustment in teaching strategies to benefit all categories of learners, namely low, mediocre, and high achievers. Users of CBCS should avoid

using degrading and demeaning labels for low achievers and flattering labels for high achievers and gifted learners because the effect on both diverse groups can affect self-esteem, which can have a negative impact on academic achievement in the long run. Reviewing grouping practices on a regular basis is necessary to track progress and avoid the need to regroup and re-strategize.

4.0 Conclusion

Cognitive-based classroom streaming (CBCS) significantly impacts students' self-esteem and sense of self-worth. Students placed in high-performing groups experience increased self-value, while those sidelined often develop lower self-esteem. This practice affects interpersonal and social relationships, with gifted students experiencing better social acceptance and psychosocial changes compared to their peers who require more time to learn. CBCS can hinder interaction and friendship formation among students, leading to unavoidable consequences such as stigma, discrimination, and neglect. The creation of self-identity is heavily influenced by these social-academic surroundings, particularly affecting late bloomers.

5.0 Recommendations

To address the challenges posed by CBCS, schools should adapt heterogeneous grouping practices aimed at improving academic achievement for all students. Teachers should implement practical and suitable teaching strategies that benefit students across all cognitive categories. Schools and families should introduce initiatives to assist students in developing and maintaining social relationships. Personal teachers or mentors could be assigned to provide support for students' personal, social, psychological, and academic challenges. Academic guidance and counseling services should be reinforced, potentially bringing in professional counselors. Open conversations on topics such as career choices, preferences, and individual differences should be facilitated to help learners realize their self-value and improve self-perception. Throughout all these efforts, priority should be given to strategies that uphold students' self-identity and protect them from avoidable discrimination that may lower their self-esteem.

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