

Girls'
Education
Challenge



Thematic Review

Girls' Self-Esteem

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GEC Thematic Reviews

This paper is one of a series of thematic reviews produced by the Fund Manager of the Girls' Education Challenge, an alliance led by PwC, working with organisations including FHI 360, Nathan Associates and Social Development Direct.

The full series of papers is listed below:

- Understanding and Addressing Educational Marginalisation
Part 1: A new conceptual framework for educational marginalisation
- Understanding and Addressing Educational Marginalisation
Part 2: Educational marginalisation in the GEC
- Economic Empowerment Interventions
- Community based Awareness, Attitudes and Behaviour
- Addressing School Violence
- Girls' Self-Esteem
- Extra and Co-Curricular Interventions
- Educational Technology
- Teaching, Learning and Assessment
- School Governance

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Executive Summary

Educational outcomes are measured in the GEC through the improvement of girls' cognitive skills such as literacy and numeracy. However, there is growing support for the theory that non-cognitive skills, such as self-esteem and self-efficacy are linked to improved learning and eventual life outcomes, and therefore should be considered as an additional and complementary measure, related to girls' attendance and more importantly learning.

There is a growing body of literature which identifies a clear link between self-esteem and academic achievement. However, many studies question this assessment as they argue that the causality of the relationship is unclear and therefore, it cannot be proven that improving self-esteem can directly improve learning.

Findings from the GEC baseline study indicated that "low female aspiration and lack of female autonomy in decision making" was the third most significant of seven main barriers to girls education. In response to this, projects implemented a range of activities to build girls' self-esteem and self-confidence by tackling community attitudes, teaching methods and classroom practices.

GEC endline results demonstrate how activities to increase self-esteem, self-confidence or self-efficacy were successful over a number of projects. These activities include being assigned mentors, girls' clubs and the provision of school supplies. There is also evidence to suggest that these have had positive impacts on learning, attendance and retention outcomes.

A key lesson that emerges from the GEC findings is that there is evidence to support a theory of change which links self-esteem and learning. It appears that between actual activities to build girl's self-esteem and the more tangible outcomes of attendance and learning, lies a softer middle layer of change. This is identified by changes in attitudes, motivation to attend and succeed, ability to make decisions that affect one's education, and aspiration to do better.

There are a number of considerations in four areas for practitioners and policy makers in light of the literature and GEC findings on this theme, including:

1. Conditions for Learning – Families play an important role in building the self-esteem of their daughters. Girls with greater self-confidence often demonstrate positive behaviours in the household and community, for example taking more responsibility for household budgets. This, in turn, can help to reinforce family support.
2. Environment for learning – Girls' clubs and mentors proved to be very successful in building self-esteem and improving learning outcomes. It is important to try and include boys in activities to support changes in girls' self-esteem.
3. Teaching and Learning – Attitudes and behaviours of teachers are critical in changing girls' self-esteem
4. Leadership for Learning – Schools that promote girls' education and change the school environment to support girls' self-esteem need buy in from leadership to make effective changes.

1. Introduction

This paper presents insights from Girls' Education Challenge (GEC) projects which measured and evaluated changes in girls' self-esteem and their relation to GEC project outcomes of learning (literacy and numeracy) and attendance. Projects used a variety of approaches to boost girls' self-esteem and a framework is proposed for assessing and comparing the impact of this non-cognitive characteristic on cognitive development.

At the inception of the GEC, a comprehensive baseline was conducted¹ identifying seven main barriers that block girls' access to education and limit their learning. Whilst poverty and school-related issues were the most common forms of barriers, girls themselves having "low female aspiration and lack of female autonomy in decision making" came a close third (Coffey, 2017). As a result, many GEC projects took this into account when designing their projects, making sure to include a variety of activities to support both cognitive and non-cognitive skills. These included encouraging parental and community attitudes to change to value girls' learning, gender responsive styles of teaching and specialised girls' clubs.

Looking across the GEC portfolio of non-cognitive interventions for learning, a variety of results have been reported. Observed changes fall into three categories: changes to girls' attitudes, behaviours and academic capability. In other words, interventions that focus on building a sense of self with girls trigger positive changes in girls' attitudes such as motivation to attend, new aspirations or a sense of school belonging. This is closely connected to a second set of changes in girls' behaviours, such as greater participation in class, or new and more prominent roles in communities. Lastly, this affects their capability academically so that they are more able to cope with learning. This complex web of change is connected and interdependent but seems to promote the idea of non-cognitive skills leading to better learning outcomes. We might refer to this as the 'ABC of learning'.

Proving a link between the development of self-esteem and non-cognitive skills and learning is complex and problematic for a variety of reasons. Firstly, projects often adopted multiple approaches within their intervention, making it difficult to identify which specific self-esteem building activities were effective in improving learning outcomes. Evidence of this was inconclusive when examining midline reports. However, endline reports have shown some links between non-cognitive skills (mainly self-esteem and self-efficacy) and girls' learning. This is demonstrated in projects which undertook activities such as providing girls' clubs, role models, gender responsive pedagogy, uniforms and books.

¹ An Independent Evaluation Manager (Coffey) was commissioned by DFID.

Secondly, there are multiple definitions of self-esteem, self-confidence and self-efficacy, each of which is a distinct concept, but which can become mixed and confusing when applied in practical situations. As a result, we used set definitions for each, with specific activities attached to them (see accompanying box for definitions).

Three concepts of 'self'

Self-esteem: Self-esteem refers to general feelings of self-worth or self-value. Self-esteem refers to the extent to which we like, accept or approve of ourselves overall or how much we value ourselves.

Self-efficacy: Self-efficacy is belief in one's capacity to succeed at tasks. General self-efficacy is belief in one's general capacity to handle tasks. Specific self-efficacy refers to beliefs about one's ability to perform specific tasks (e.g., maths, reading, studying, etc.)

Self-confidence: Self-confidence refers to belief in one's personal worth and likelihood of succeeding at certain tasks. Self-confidence is a combination of self-esteem and general self-efficacy.

Finally, methodology and measurement for evaluating change is fraught with difficulties. There are few standard methods and of these rely predominantly on girls' self-reporting. This sensitive work requires high standards of evaluation practice which is not always available in the most remote and fragile contexts where the GEC works. However, the analysis of GEC projects has helped us to propose a potential new theory of change using the 'ABC learning' framework as it utilises a more joined-up approach to identifying change as a result of non-cognitive work in girls' education. The individual changes in girls identified in the framework can be easily transformed into a more comprehensive set of indicators, helping to offset some of the monitoring difficulties previously mentioned.

This paper seeks to identify best practise whilst also sharing some of the challenges and how they were overcome, using quantitative and qualitative data from GEC midline and endline. The primary audience for these papers is practitioners, education officials in national governments and donors seeking out solution-driven approaches that get girls into schools and help them learn. The paper contains interesting practical lessons for a much wider community of practice including academics, new organisations and companies interested in investing in girls' education internationally.

2. Overview of the self-esteem discourse

There is a growing body of literature which identifies a clear link between self-esteem and academic achievement. However, many studies question this assessment as they argue that the causality of the relationship is unclear and therefore, it cannot be proven that improving self-esteem can directly improve learning.

Definitions

Self-esteem is a widely-used concept in psychology. The most frequently cited definition of self-esteem describes it as a favourable or unfavourable attitude toward the self (Rosenberg, 1965). Branden (2001) distinguishes self-esteem into two aspects: self-confidence (the sense of efficacy) and self-respect (the sense of worthiness). Self-esteem is often interchangeably used with self-concept, self-competence and self-efficacy. Self-efficacy is a part of self-esteem referring to a person's confidence to perform a specific task successfully and closely links to initial task engagement, persistence and achievement (Branden, 2001). Bandura (1997) notes that self-efficacy is also accompanied by improved intrinsic motivation, the ability to sustain high levels of motivation and persistence in the face of difficulties. The multiple terms and meanings can lead to confusion in projects on the ground as to what they are trying to change, for what purpose, and how to measure it.

The relationship between self-esteem and learning outcomes

There are numerous studies on self-esteem that provide evidence to support the premise that higher self-esteem supports academic performance. Philips, Smith and Modaff (2004) as cited in Bauman (2012) found that students with higher self-esteem are more inclined to take an active part in their education than a student with lower self-esteem, whilst recognising that other factors also contribute to lower class participation. Students who participate in class have a higher success rate, than those who do not². Other studies find a positive correlation between students' level of self-esteem and reading ability, reading level and academic achievement (Hisken, 2011).

Intrinsic motivation was found to be an important predictor of goal-directed behaviour in a study in Malawi (Van Egmond et al, 2017), even under conditions of severe resource scarcity³. Self-Determination theory⁴ is built up of three basic human needs namely relatedness (the need to have close relationship with others), competence (the need to be able to deal with the environment around them) and autonomy (the need to have control over our own life). These factors were found to be even more important for the development of intrinsic motivation when external challenges must be overcome.

There is a substantial body of evidence showing that non-cognitive skills predict a wide range of life outcomes, one of them being educational achievement. Recognising the weak relationship between achievement tests and later-life success, Kautz et al (2014) look at the development of non-cognitive skills such as perseverance, self-esteem and self-efficacy and the evidence that interventions focussed on these skills predict meaningful life outcomes. Looking at the growing body of empirical research, they contend that non-cognitive skills can predict later life outcomes with the same or greater strength as measures of cognition. They also have strong effects on educational attainment as well as additional effects on important life outcomes beyond their effects on schooling.

² Turner and Patrick (2004) as cited in Bauman (2012).

³ This paper draws on evidence and findings from the GEC1 funded TfaC project in Malawi.

⁴ Self-determination theory is a theory of motivation and personality that addresses three universal, innate and psychological needs: competence, autonomy and psychological relatedness. The theory argues that if these needs are met, people will function and grow optimally to achieve their potential. (<https://www.learning-theories.com/self-determination-theory-deci-and-ryan.html>)

In summary, the literature encourages linking self-esteem to learning and improvement. However, the complex and heterogeneous nature of self-esteem clearly requires a nuanced understanding to effectively measure its effect on education outcomes. This therefore limits the way in which it can predict improvements. Whilst some argue that evidence exists to demonstrate that higher self-esteem leads to higher academic performance, others claim that self-esteem cannot be examined in isolation and is one of many factors that can promote positive outcomes on learning. Much of the research and evidence on self-esteem and educational outcomes has been conducted in Western contexts. Further research needs to be done, particularly in developing country contexts, to fully understand the complex relationship between self-esteem and the journey to educational achievement.

Measurement of self-esteem

The measurement of self-esteem has been a long-standing issue in psychology with researchers proposing a variety of measures over the years. Kautz et al (2014) emphasise that “achievement tests do not adequately capture non-cognitive skills such as perseverance (“grit”), conscientiousness, self-control, trust, attentiveness, self-esteem and self-efficacy, resilience to adversity, openness to experience, empathy, humility, tolerance of diverse opinions and the ability to engage productively in society, which are valued in the labour market, in school, and in society at large.” Past studies have used self-reporting measures which can be problematic when conducting analysis. Baumeister (2003) contends that since it is difficult to obtain non-self-reported measures of such personal and subjective constructs, it can lead to a biased view that increases in self-esteem lead to improvements in academic performance.

Issue of causality

Although research has established links between self-esteem and variables such as educational achievement, these correlations cannot necessarily establish causality. Baumeister et al (2003) maintain that without establishing causality, these correlations remain highly ambiguous and raise significant questions about the connection of self-esteem and academic performance. They argue that efforts to boost self-esteem have not been shown to improve academic performance and may sometimes even be counterproductive. This is because students may reduce their effort due to incentives to work being eliminated by self-esteem interventions in place. Despite recognising that some findings do point to a positive but ambiguous relationship between self-esteem and school performance, Baumeister et al (2003) consider that the findings do not indicate whether self-esteem is a cause or a result of school performance. Other literature supports this opposite causal conclusion that suggests good work in school leads to high self-esteem. Baumeister et al (2003) argue that the correlation between self-esteem and academic performance are not due to a direct causal link and therefore propose that self-esteem should be understood as one of a cluster of factors which can promote positive outcomes.

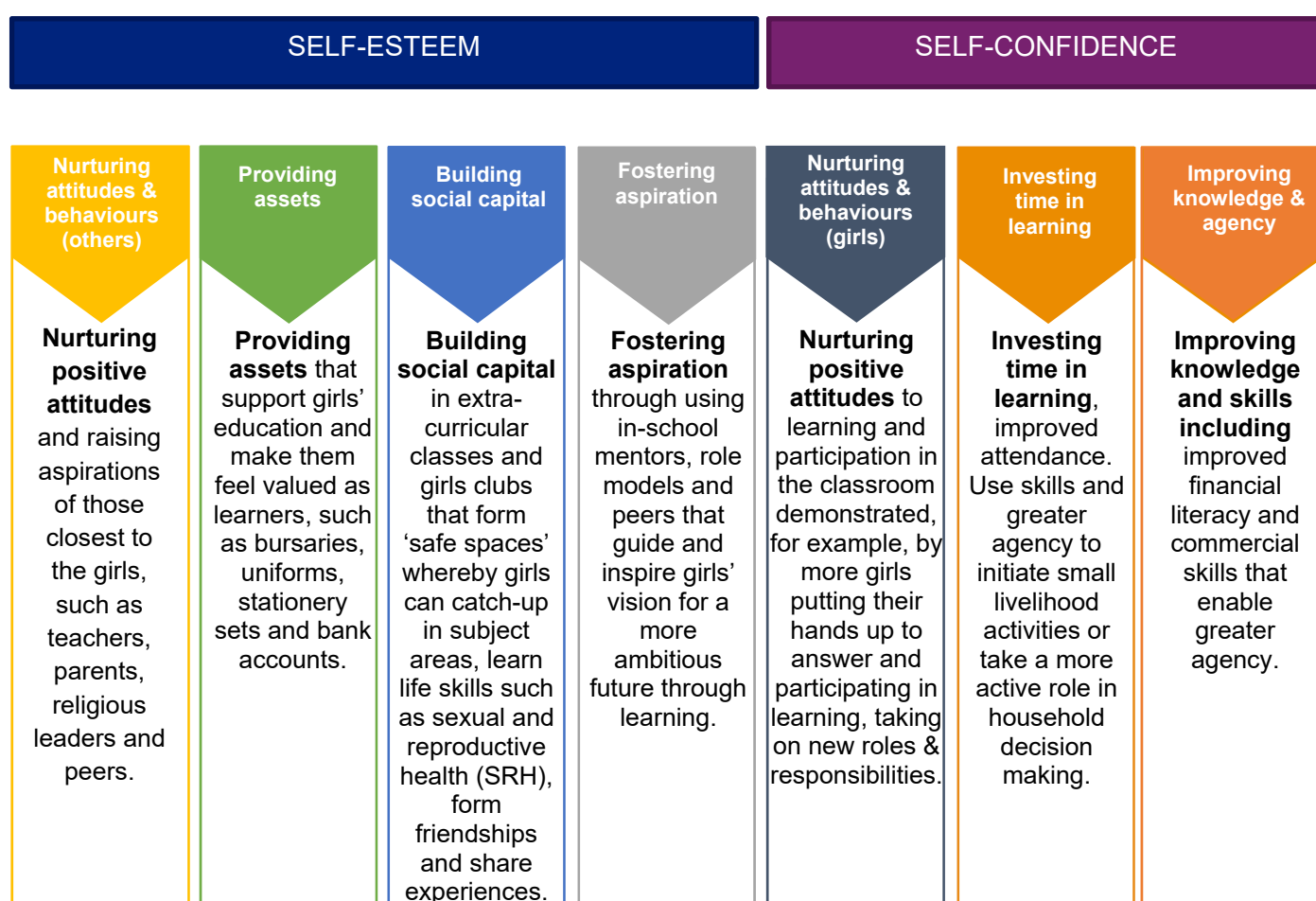
3. Self-esteem activities in the GEC

Overview of inputs

There are a range of activities that projects have adopted to build girls' self-esteem (girls' self-value) and self-confidence (self-belief in fulfilling tasks related to skills).

Projects have placed importance on developing self-esteem because they are seeing that greater self-esteem leads to improved self-confidence in girls and changing behaviours, which have the potential to improve learning. Behaviours that are seen to develop self-esteem and support learning are summarised below. These approaches to non-cognitive learning have been put in place across the GEC portfolio and have been grouped under activities that improve either self-esteem and self-confidence as illustrated by Figure 1 below.

Figure 1: Inputs in GEC projects



Understanding which approaches are the most effective is complicated as all projects conducted at least two or more activities to build girls' self-esteem or confidence. In fact, 77% of projects undertook activities in at least five of the nine activity categories above, illustrating that most projects have adopted a complex and multi-strand approach. The blending of multiple project activities is common and effective, but creates some difficulty in understanding exactly which activities are working, and why.

Theories of change: expected benefits from non-cognitive skills for girls

At the start of the GEC, the baseline study indicated that there were seven main barriers to girls' education. These were a complex mix of economic, structural and physical barriers.⁵ Whilst poverty and school related issues were the most common forms of barriers, girls themselves having "low female aspiration and lack of female autonomy in decision making" came a close third (Coffey, 2017). It appeared that many girls were affected by low self-esteem and a lack of confidence in the classroom which appeared to affect their ability to participate and learn. In their baseline studies, projects attributed this to the dominance of a range of social attitudes in those around them. This included low academic expectations from parents, teachers, peers as well as a lack of physical assets available to them such as transport, uniforms, or even stationery. A combination of these factors created an environment that kept girls' self-esteem and aspirations low and prevented them from thriving in the classroom.

For example, Link Community Development in Ethiopia found that up to a third of girls in their target schools had a perception that teachers regarded education for boys as more important, and that boys received more attention than girls in class. An even larger proportion of girls (77%) thought that they learned less than boys, suggesting the absence of gender sensitive pedagogy. In addition, low parental expectations of girls' success in school seemed to have a negative impact on their performance, as the more negative the caregiver's attitude towards girls' education, the lower the girls' average reading fluency scores⁶.

Another negative social norm in the community influencing girls' self-esteem was that they did not have control over their own future. This is particularly apparent at puberty when fears of early pregnancy can lead parents or other family members to withdraw girls from school for marriage. For example, in the Red een Kind (ReK) project in South Sudan, almost all teachers interviewed (94%) reported early marriage as a reason for girls dropping out of school. This was also the case in Nepal and Mozambique where it emerged from focus group discussions that extremely poor families may make marriage commitments for girls at birth. These girls would then be expected to move and live with their 'husband's' family when they are of marriageable age, generally at puberty.

Such social attitudes and low expectations for girls' educational outcomes has stunted girls' education and affected their motivation and aspirations for their future, which may in turn have a negative influence on their learning and life outcomes. This finding at baseline provoked GEC projects to adopt a range of methods to building girls' self-esteem and self-confidence by tackling community attitudes, teaching methods and classrooms practices.

⁵ Barriers are poverty and the inability to pay school fees, poor quality teaching and the absence of teachers in classrooms, inadequate school facilities, negative attitudes towards the education of girls, violence and safety factors, lack of access because of factors like disability, or even remoteness and last, environmental and political fragility that affected girls' access to schools and education.

⁶ Step Change Window Baseline Report. p.60.

4. Key findings

GEC projects were all designed to achieve learning outcomes, measured in terms of literacy, numeracy, and attendance. Activities were introduced across a variety of projects to build girls' non-cognitive skills, as literature suggested this could improve learning.

Midline evaluation reports (2016) signalled the following positive changes:

- Changing teacher attitudes towards teaching girls can build better classroom relationships and girls' self-esteem
- Academic capacity building interventions such as tutoring and remedial lessons are enhancing self-confidence
- Promoting sexual and reproductive health nurtures agency
- The provision of sanitary pads, kits and better sanitation in schools has boosted girls' self-esteem and confidence
- Mentors and role models can significantly raise self-esteem
- Skills including financial literacy and life skills is having an impact on self-esteem and self-belief

Whilst many of the results at midline indicated that activities that built girls' self-esteem were beneficial to girls, there was limited evidence that a broader range of non-cognitive skills had any impact on learning. However, endline evaluations have shed further light on which interventions seem to have a positive effect on learning and why. Individually, the projects discussed similar changes in the girls such as improvements in motivation or aspiration and changing behaviours. However, looking at the findings from a larger body of projects, a clearer pattern has emerged. Activities that build girls' non-cognitive skills have led to changes in three categories namely girls' attitudes, behaviours and academic capability.

Projects noted a range of changing attitudes that were important to improved learning, such as a love of reading, greater aspiration and, importantly, motivation. These attitudinal changes are accompanied by changes in girls' behaviours such as improved attendance and greater participation in a classroom environment. This included putting hands up, approaching the blackboard or answering teachers' questions. These more positive attitudes and behaviours are reinforced by an improved capability to learn, which leads to and promotes academic success. Whilst no projects cited all these changes in girls in a single intervention, common changes emerged across several projects in the GEC portfolio which are consistent. It is also difficult to isolate a sequence of change between attitudes, behaviours and capability, as it is unclear which came first as they appear interdependent and self-reinforcing. Therefore, the factors of girls' attitudes, behaviours and capability are all potentially necessary and connected leading to more effective learning. We have entitled this the 'ABC of learning'.

Figure 2: The ABC of Learning

Attitudes	Behaviours	Capability
<ul style="list-style-type: none"> • Love of reading • Greater motivation • Higher self-esteem/efficacy • New aspirations • Greater confidence • School belonging • Ability to make decisions for yourself 	<ul style="list-style-type: none"> • Greater participation in class • Putting hands up in class • Attendance in class • Timekeeping • Reading at home • Taking books home to read • Saying no to unwanted sex • Speaking up in class • Speaking out in communities • Debating • Adopting roles and student positions in school • Transferring skills from school to home (e.g. financial literacy) 	<ul style="list-style-type: none"> • Catching up with studies • Achievement in exams • Progression through the school cycle • Transition to secondary school • Setting up a business

On a practical level these changes identify points for measuring change in this complex and hard to measure thematic area. Each of the above changes could be easily transformed into indicators for more effective monitoring and evaluation of girls' non-cognitive skill development. The evidence for this will now be discussed (see Annex 1 for a more detailed example of non-cognitive activities for individual projects).

Intermediate outcomes: Increase in self-esteem and self-efficacy

GEC projects have demonstrated a number of successful ways to build a sense of 'self' in girls. Although not specifically linked to learning outcomes, some results build the foundation for learning and demonstrate a positive intermediate stage towards learning and attendance.

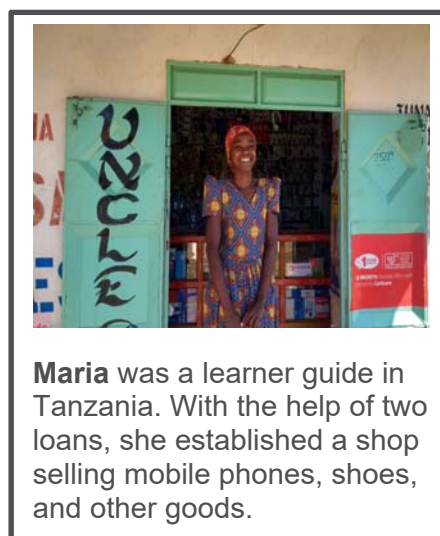
A number of projects found that the presence of peer mentors and role models built motivation and aspirations

The presence of peer mentors has been highly positive. The role of mentors is to encourage and guide girls academically to enable them to learn, interact with each other, and ask questions or seek help for studies. Positive role models are also identified within schools or

clubs, for example a lead female teacher, or prominent woman in the communities being invited as visitors. Mentors and role models were used and developed both in girls' clubs and schools, and appear to have had a positive impact on girls' self-esteem and motivation which was reported as changing girls' behaviours.

In Tanzania and Zimbabwe, CAMFED developed a life skills programme focused on non-cognitive skills called the 'My Better World Programme' (MBW) (Coffey, 2017). This was delivered by 'learner guides' (mentors) through the CAMA⁷ network, to raise motivation among marginalised girls, and improve both their academic and general confidence to face their post-school futures. Interestingly, CAMFED's report noted that over 90% of both boys and girls were equally likely to report that using the MBW curriculum and materials had led to positive changes in their behaviour.

A CAMFED Learner Guide stated that; "The MBW has made a huge difference in that it has changed behaviour. Even teachers have commented that behaviour in class has improved. They say that students used to talk and whistle in class, but not now. Drop out has reduced and pass rate has increased. Fewer girls get pregnant but this is still an issue."⁸



Maria was a learner guide in Tanzania. With the help of two loans, she established a shop selling mobile phones, shoes, and other goods.

Members of girls' clubs in the Discovery Kenya project spoke highly of the social support, role models and encouragement provided by their club mentors, and how this helped them to study harder and perform better in their studies. In Ghana, the Discovery girls' club members indicated that they use their mentor's advice on self-esteem in their academic learning, and the girls' club mentors saw positive changes in members' motivation, self-esteem, health, and school performance. Some club mentors also said that non-members, including boys, noticed positive changes in members and asked for club membership.

Link Community Development in Ethiopia found that 88% of girls involved in their Social and Emotional Learning intervention reported improved self-esteem. Girls (junior and senior) who attended tutor classes and counselling at school improved their self-esteem, increased their aspirations and put more effort into school work. Higher self-esteem was linked to fewer early/forced marriages because girls wanted to complete their education. In midline, 67% parents responded that they 'do not approve of early marriage of girls'. At endline, 78% parents of senior girls and 89% parents of junior girls reported that they 'do not agree to early marriage', compared to 44% of parents in the control group.

Mercy Corps, Nepal established girls' clubs which focused on leadership, voice and participation. They also used a 'girls-to-community' approach where girls were encouraged to talk about their life skills and sexual and reproductive health classes in the community. This was linked to increased self-confidence and a significant increase in self-efficacy.

⁷ Alumnae association for CAMFED graduates.

⁸ CIDT (2017) Endline Qualitative Study of the Camfed Girls' Education Challenge Step Change Window (GEC SCW) funded programmes in Tanzania and Zimbabwe, pp.43 in Annex 11

Supporting the Education of Marginalised Girls (STEM), Nepal found that General Self-Efficacy scores for treatment girls in-school recorded a statistically significant increase of 2 points from the midline. One of the main reasons for the increase in girls' confidence was the in-school girls' club. As the club modality required groups to be formed and every girl to lead her group in turn, everybody had a chance to speak up and proactively participate in the sessions. Another reason for increased self-confidence amongst girls was STEM's 'girls-to-community' approach. In year 2, girls went into communities and facilitated discussions and enacted plays to demonstrate their learning from Life Skills/Sexual and Reproductive Health (LS/SRH) classes. The girls said it helped to increase their confidence as most thought they would not have been able to do this prior to the STEM intervention. This increase in confidence was also visibly evident during focus group discussions, where girls were more forthcoming and vocal about their opinions than before. 'Girls-to-community' presentations were also conducted to inform parents and the rest of the community about what was being discussed at the STEM clubs.

A number of projects found that the provision of school supplies fostered a sense of school belonging

The provision of uniforms, books and stationery kits seemed to equip girls for school both physically and emotionally. Results suggest that a 'sense of belonging' in school is an important characteristic for increasing girls' self-esteem. This was particularly apparent for girls with disabilities as many had never been to school before.

Save the Children, Mozambique provided girls with an education kit containing school supplies. This was found to improve girls' sense of belonging in their school and their perceived ability to complete academic tasks successfully. Students receiving education kits were found to have higher academic self-efficacy and school belonging scores than their non-recipient peers indicating that this improved their motivation to learn.

Outcomes: The effect of increased self-esteem on learning, attendance and retention outcomes

GEC endline results demonstrate how activities to increase self-esteem, self-confidence or self-efficacy were successful in a number of projects. These activities include being assigned mentors, girls' clubs and the provision of school supplies. There is also evidence to suggest that these have had positive impacts on learning, attendance and retention outcomes.

Literacy and numeracy outcomes

Girls' clubs have had a positive impact on improving girls' self-esteem and subsequently learning outcomes. Generally, girls meet in single-sex, safe spaces for a range of different activities, for example 'catch-up' learning, sexual and reproductive health classes, drama, singing and skills development. These clubs nurtured greater participation and interaction between girls and teachers or mentors, and were designed to be girl-focused and girl-friendly. A particularly valuable focus of girls' clubs is the chance to catch up on learning as girls can repeat learning activities without fear of ridicule by male peers.

TfaC in Malawi demonstrated that higher self-esteem results in higher literacy, unless the girl is married, in which case self-esteem no longer visibly predicted literacy. In spite of this finding, all key subgroups targeted by the intervention (mothers, sexually active girls, married girls, girls who have been pregnant, and orphans) outperformed in literacy over and above their control group counterparts, over time.

On average, married girls in the TfaC's treatment group exhibited the highest change and increased their oral reading fluency by 31.32 words per minute between midline and endline. This change was an average of 13.3 words more than married girls in the control group. These findings suggest that the intervention was well targeted.

TfaC used girls' clubs in Malawi to build self-esteem and investigated what girls valued about the clubs. Girls agreed or strongly agreed with the following statements;

- *It was easier to learn reading in the Girls' Clubs than in school (79%)*
- *It was easier to learn mathematics in the Girls' club than in school (77%)*
- *I feel that I can use the skills that you learned in clubs in your everyday life (75%)*
- *The Agent of change (person in charge of the club) was able to answer all my questions about sexual and reproductive health topics. (89%)⁹*

In Plan UK's project in Sierra Leone, teachers observed changes in girls' behaviour and self-confidence as a result of catch up classes in girls' clubs. One head teacher in Bo, Sierra Leone recognised the benefits that came from girls' attendance in the Study Group, and echoed the need to continue the study process through the support from the local community:

"We have seen the benefits to the girls because they have extra time to work after school. They can learn the things together that they did not master in class. Often girls don't get the chance to study at home, so this has really helped them with their school

⁹ GEC Endline evaluation – Tiphunzire (2016) p:60.

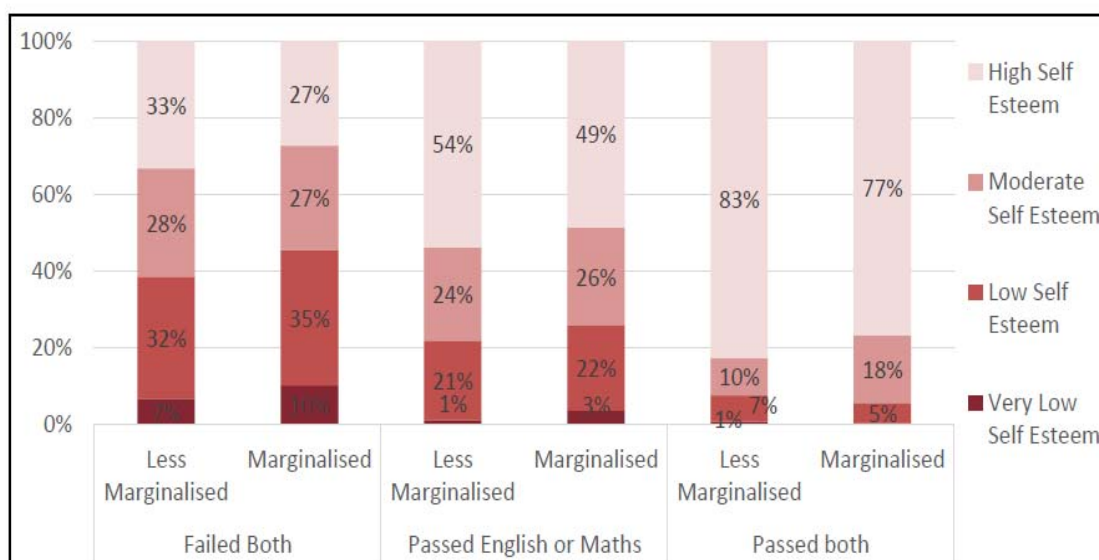
work. We have seen grades go up, and girls are more confident now.”¹⁰

In some cases, projects demonstrated that girls’ clubs had positively affected learning through building self-efficacy. Findings suggest that membership in girls’ clubs increased girls’ level of ‘self-belonging’ and therefore motivation to attend school, which in turn increased literacy performance, so long as there was also good quality teaching. This was shown in the Save the Children project in Mozambique where Girls Club membership positively affected both literacy and numeracy outcomes.

CAMFED Zambia adopted the *Fundación Escuela Nueva* (FEN) approach which promotes self-esteem through child to child learning. This approach used a democratic school governance model and a child-centred pedagogy which was originally designed in Colombia. FEN is adopted and used alongside the Camfed model of support for girls’ education. Their endline reported that 75% of marginalised girls in FEN treatment schools achieved normal to high levels of academic self-esteem, 15% higher than the target. Academic self-esteem was linked to better attainment and increased over the course of the project. However, self-esteem improved amongst treatment *and* control girls, with no notable difference between the groups. This would seem to suggest that an increase in self-esteem alone is not enough to improve learning and there are possibly other causal factors working alongside improvements in self-esteem. This is in keeping with the work of Baumeister et al (2003) mentioned earlier, who note that self-esteem should be understood as one of a cluster of factors which promote positive outcomes.

However, CAMFED Zambia cross checked self-esteem scores with exam results and found a correlation between levels of self-esteem and exam pass rates for English and mathematics. (see Figure 3 below from their endline report.) This shows that girls who passed both Examination Council of Zambia (ECZ) English and mathematics were more likely to have mid-high self-esteem, irrespective of their level of marginalisation.

Figure 3: Self-esteem predicts academic performance on the ECZ assessment exam



¹⁰ Plan International-Sierra Leone, Quarterly Progress Report, Quarter 16: (2017)

Retention outcome

Academic self-efficacy was also found to be a strong predictor of attendance. The more a girl feels capable of completing academic tasks, the higher her attendance. This makes intuitive sense and supported project activities that focused on empowering girls in schools. School belonging was also a strong predictor of attendance. Feeling a sense of belonging to one's school leads to higher average attendance:

“The project concluded that girls’ clubs were found to be an effective means to improve literacy and attendance through improved school belonging and academic self-efficacy, which leads to improved motivation. Each point increase on academic self-efficacy resulted in average increases in attendance of 5.8%.”

In its theory of change, TfaC Malawi related school attendance to lower levels of risky sexual behaviour. Mediation analyses¹¹ revealed school attendance (linked to higher levels of self-efficacy) increased the chances that girls said no to unwanted sex.

In Uganda, Promoting Equality in African Schools (PEAS) established girls’ clubs to promote games, sport and income generating activities to increase school attendance and motivate girls’ learning. At endline, 95% of girls mentioned that this motivated them to stay in school, but the link between attitudes to school attendance and behaviour change are less clear cut. Parents’ ratings of their girls’ confidence did not improve to quite the aspirational target level set at baseline, although anecdotal evidence from the schools suggests girls are speaking up in class regularly and reporting incidences of poor treatment more frequently, both of which are early indicators of growing confidence¹². PEAS stated that an innovative part of their girls’ clubs is the introduction of income generating activities (IGA) for girls. Besides empowering girls with life skills for self-esteem, decision making and responsible living, the IGAs equip girls with entrepreneurial skills that go a long way to building a sense of self-reliance thus combating lack of agency, recognised as a barrier to girls’ education.

5. Key lessons

Non-cognitive skills: A complex path to learning

By mapping the complex result pathways from multiple projects (see Annex 2 for two examples), a common thread starts to emerge allowing us to make a tentative proposition for new theories of change between girls’ ‘self’ and learning.

There is evidence to support a theory of change which links self-esteem and learning

It appears that between actual activities to build girls’ self-esteem, and the more tangible easier-to-measure outcomes of attendance and learning, lies a softer middle layer of change. This is identified by changes in attitudes, motivation to attend and succeed, ability to make decisions that affect one’s education, and aspiration to do better. It is this ‘softer’ middle layer that appears to some extent to underpin and enable girls’ learning, but has

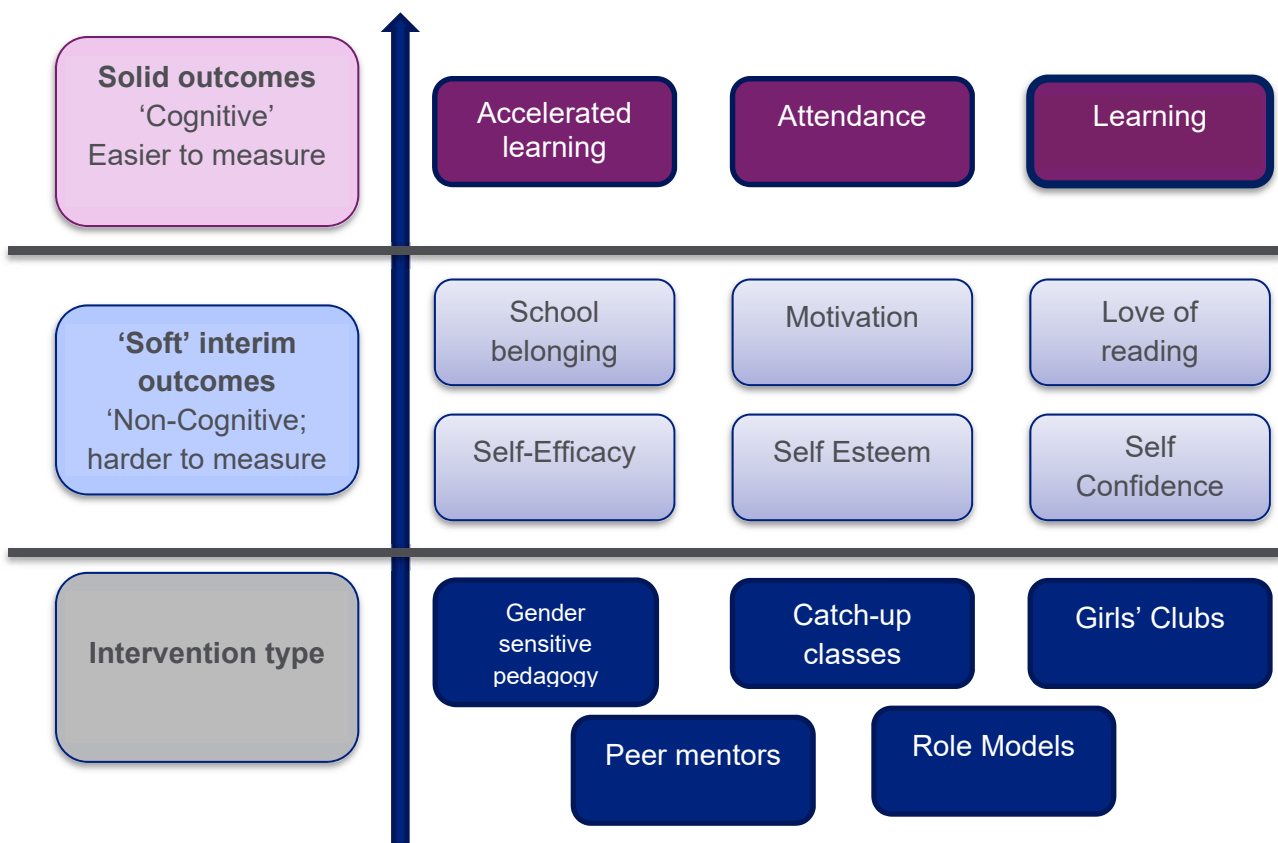
¹¹ Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach. By Andrew F. Hayes.

¹² PEAS Girls’ Enrolment, Attendance, Retention and Results (GEARR) Project. 2017.

remained opaque as it is difficult to both identify and measure. Girls' clubs, coupled with mentors and catch-up learning seems to be highly effective and motivation is one of the most commonly reported outcomes of these activities, but is rarely defined, measured or evaluated in any way. However, greater girls' motivation to attend school and succeed is a commonly reported intermediate outcome in projects and seems to be a significant gateway which unlocks potential to greater attendance and ultimately learning.

Figure 4 (below) starts to build a more complex theory of change from activity through attitudinal and behaviour changes to improved learning. Key findings from GEC projects point to specific interventions such as girls' clubs, role models and gender sensitive pedagogy being most effective.

Figure 4: Example of a theory of Change linking non-cognitive and cognitive skills (simplified)



6. Considerations for practitioners and policy makers

In summary, many of the GEC projects have adopted innovative and creative methods to support girls' learning by building up their self-esteem and self-confidence. The number and combination of activities within individual projects often makes it difficult to determine what is having the greatest impact and why. Endline findings seem to be shedding more light on successful approaches and their results.

The following considerations may be helpful for others who are engaged in or considering similar interventions.

Conditions for Learning

- GEC projects have demonstrated **the powerful role of families** in building the self-esteem of their daughters by valuing their education equally to boys, supporting through the provision of fees to give continuity of education, and enabling girls to make their own decisions about their education, particularly at transition points.
- **Girls with greater self-confidence** often demonstrate different behaviours in the household and community – taking more responsibility for household budgets, for example, or speaking out at home or in communities. These behaviours have proved persuasive to parents with regard to the value of education and reinforced their decisions to keep girls in school.

Environment for Learning

- **Girls' clubs have demonstrated enormous value in supporting the self-esteem and self-confidence of girls.** Girls' clubs seem to be particularly effective when combined with catch-up learning classes and have demonstrated that they can provide a safe environment for girls to talk about issues, gain confidence and participate in groups with peers.
- **Mentors and role models serve a worthwhile function in clubs and schools by supporting girls' motivation to attend school and succeed.** They also help in building their aspiration to do better and persevere to achieve a better, more prosperous future.
- **Men and particularly boys are important change agents in school** and can support changes in girls' self-esteem by supporting girls and accepting their new roles in class and school. Girl-focused activities can alienate boys and create resentment so it is important to include boys in the planning, explanation and if possible activities in girls' clubs and boys'/mixed gender clubs.
- **Some activities, such as networks for girls and mentoring structures are enduring and sustainable.** Whilst some girls' clubs are difficult to sustain beyond project funding, networks for girls and mentoring structures can be sustainable. A

good example of this is Camfed's CAMA Learner Guide Network, which works to support girls' learning and their non-cognitive development in school and in post-school working environments.

Teaching and Learning

- **The attitudes and behaviours of teachers and school staff is a critical part in changing girls' self-confidence and self-efficacy.** Teacher training in gender responsive pedagogies has been effective and sustainable, supporting the complementary work done in girls' clubs.

Leadership for Learning

- **Introducing systems in schools that both promote girls and change the school environment needs school-wide support to change classroom dynamics and enable girls to have greater confidence to achieve.** This starts with buy-in from head teachers and cascades down to introducing gendered teaching methods in the classroom, and better teaching assessment for pupils that includes non-cognitive skills as well as cognitive learning.

GEC projects have observed a three-part change in girls as a result of building their non-cognitive skills: **attitudes, behaviours and capability (ABC)**. These three areas seem to be interdependent and self-reinforcing so that a love of reading can lead to improved attendance and learning or a sense of belonging can result in girls' staying in and enjoying school, which supports their learning. Greater participation in class and higher expectation from teachers for girls equally changes classroom dynamics and can lead to an improved learning environment.

In future projects, indicators could be developed to measure change in these three distinct aspects at the level of the girl. These can then be measured to get a more in-depth picture of how and why non-cognitive skills for marginalised girls can support their learning.

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Annexes

Annex 1: Overview of GEC projects implementation of self-esteem/self-confidence activities

Project	Country	Self-esteem interventions/findings
BRAC	Afghanistan	<p>BRAC’s mentoring program was first implemented as part of the GEC in 2014, and consists of supporting girls to become mentors to their peers. The program’s main objectives are to develop the leadership potential of mentors, who help other students in their studies, and to instil values consistent with civic responsibility. The program also encourages mentee students to attend school more regularly and be more attentive and proactive in class. The mentoring program also focuses on developing girls’ interest and involvement in extra-curricular activities, especially in debating, creative writing and math-competitions, by creating an environment where weaker students can get support from their mentors and teachers.</p> <p>Local resource persons (LRPs) are trained by BRAC and subsequently train the mentors, conduct refresher trainings and organise different issue-based events when necessary. Each mentor works in a small group with 10 fellow classmates of different learning abilities and sits with the group once a week where they support each other in studies and perform different activities. The mentor training also includes social issues so that the mentors can go back to their classes and disseminate the information to their fellow students.</p> <p>Debating is a particularly important activity in the mentoring program. The objective of debating is to increase girls’ self-confidence and enhance their public speaking capacity. Because of debating there is also forward linkage, which includes transferring messages covered in debates to the family, community and school authority to address barriers related to girls’ education. For instance, debating statements have included: girls have the right to be educated, and women should have equal rights to men. Although mentors participate in debates primarily within their schools, the mentoring program also supports inter-school, inter-district and inter-province debating competitions. Debating contributes to BRAC’s theory of change by raising awareness of girls’ rights by creating dialogue at the school, family and community levels, and by increasing girls’ confidence, which is hypothesized to be linked to better learning outcomes.</p>

Link	Ethiopia	<p>88% of girls reported that the Social and Emotional Learning (SEL) intervention helped to improve their self-esteem. The girls realized their own value and the value of education. Through attending tutor classes and counselling at school, their self-esteem improved that enabled them to have high aspirations and put effort into their school work. Self-esteem scores increased for senior girls (6.2 to 7.8 on scale of 0-10). Junior girls completed the self-esteem scale for the first time at endline evaluation and scored 8.8 on a scale 0-10 which is high. Self-esteem scores were related to aspirations ($r=0.6$) and attitude towards school ($r=0.7$). Higher self-esteem can be related to less early/forced marriages because girls want to complete their education. In midline 67% parents responded that they do not approve of early marriage of girls. In endline 78% parents of senior girls and 89% parents of junior girls do not agree to early marriage, compared to 44% of control group parents</p>
Varkey	Ghana	<p>With respect to self-esteem, the project did not observe a significant difference on the overall standardised self-esteem index. Girls in the treatment group showed a greater degree of disagreement with the statement, "On the whole, I am satisfied with myself" (at the 5% significance level). For the reasons stated above, we again caution against drawing inferences on singular statements. However, one possible explanation for this outcome may be that attending a treatment school may have induced girls to think more about how they could improve themselves and their educational situations. Girls in the treatment group also showed a greater level of disagreement with the statement, "Sometimes I feel like I can't do anything." This outcome may reflect greater empowerment over being able to change things. In sum, quantitative survey measures suggest that overall, there is no impact of the programme on girls' confidence and self-esteem measured in this way. However, this does not necessarily imply that the MGCubed programme is ineffective in fostering confidence and self-esteem. Overall students in treatment and control both exhibit a high level of agreement with statements reflecting confidence and self-esteem. The social desirability of agreeing to statements like this can lead to difficulty measuring confidence and self-esteem in a survey, which only reflects self-reported attitudes and is not a measure of behaviour change. Qualitative data does suggest that the MGCubed and Wonder Women programme has a positive effect on girls' confidence levels, with one facilitator noting the following about students: "Confidence level has improved, those who used not to talk in class are now doing</p>

		well in answering questions during lessons, children can now choose who their role model is, and make career choices.”
Discovery	Ghana, Kenya, Nigeria	Girls’ Clubs were reported to have improved girls’ motivation and confidence. Participation in Girls’ Clubs increased since Round 1 and participation increased more in Year 1 schools than in Year 2 schools. The members and mentors opined that the clubs created a safe place for girls to talk about things they were uncomfortable discussing at home or school, such as menstruation, HIV/AIDS, harassment from boys, sex, and child abuse. Many Girls’ Club members spoke positively about their experiences in the club. Some Girls’ Club mentors also said that girls’ self-esteem, self-confidence, and self-expression improved. Indeed, more than 70% of cohorts felt that they had the ability to decide about school and their future.
EDT	Kenya	Project interventions were meant to increase the number of girls in target schools reporting concerns to teachers/school management from 621 at baseline study to 1,621 at endline thus demonstrating increased empowerment. This target was largely achieved as 1,470 of girls were reporting concerns to the teachers. To achieve this, it was planned that 480 schools will have clubs, 75% of which will be operational. This target was fully achieved with 480 schools having clubs that were all operational. Most of the girls appreciated the club activities and the impact the activities like the galas and competitions have had on them. The activities in the clubs had been instrumental in improving their self-esteem and confidence and also in building their future aspirations. It has also promoted values in them and encouraged them to work hard in school.
I Choose Life	Kenya	Mentorship enhanced the motivation of girls and boys in school. This is one intervention that the project will need to invest in as it affects the learners’ motivation to learn directly. Teachers reported improved self-esteem and class participation among girls. In some schools, girls had started outshining boys in most curricular and co-curricular activities.

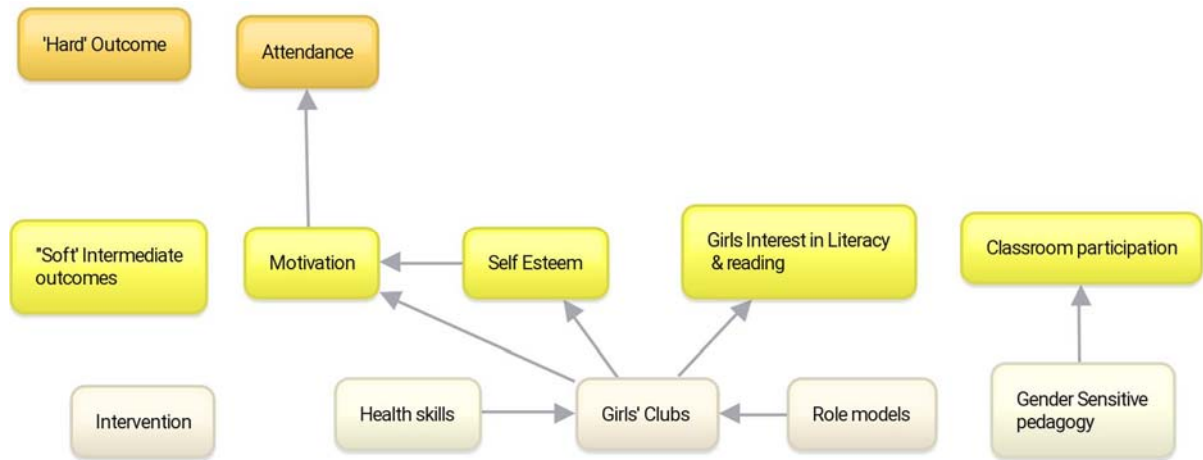
TfaC	Malawi	<p>Girls' clubs were primarily designed to enhance the girls' levels of self-efficacy (i.e. to empower girls) and to improve their self-confidence. The intervention had a significant impact on the academic self-efficacy of girls. Linear regression analyses revealed a significant interaction between time and treatment status ($t(3,2429) = 4.74, p < .001$). The girls in the treatment schools improved more than the girls in control schools and even score higher at Endline, even though their scores were lower at the start of the intervention. The project had an impact on the self-esteem of participants of the Y1 cohort ($t(3, 1571) = .182, p < .001$). In this group, girls experienced larger gains in self-esteem than those in control groups over time. However, impact on self-esteem for the Y2 group was non-significant. Sub-group analyses (moderation analyses) reveal that at Endline, there is a smaller difference in the levels of self-efficacy of in and out of school girls at treatment schools, than there is at control schools (interaction: $F(,1355) = 40.03, p < .001, R^2 \text{ change} = .03$). In other words, there is a big difference between the self-efficacy levels of out of school girls at treatment and control schools, with out of school girls at treatment schools scoring much higher ($B = .66^{***}$). Self-efficacy plays a significant role in the relationship between attendance and the reported ability to say no to unwanted sex. In its theory of change, TfaC relates school attendance with lower levels of risky sexual behaviour. Mediation analyses reveals school attendance increases the chances that girls say no to unwanted sex, because school attendance is associated with higher levels of self-efficacy (indirect effect: $B = .3$ (LLCI = .02, ULCI = .25).</p>
Save the Children	Mozambique	<p>Membership in the Girls' Club increases motivation, which in turn increases literacy performance. Additional mediation models find that the reason that the motivation of Girls' Club members increases is due to the increase in their levels of school belonging and academic self-efficacy. This finding suggests that girls' clubs are an effective means to affect literacy, and attendance through improved school belonging and academic self-efficacy which leads to improved motivation. Academic self-efficacy was found to be a strong predictor of attendance. The more a girl feels capable of completing academic tasks, the higher her attendance. This makes intuitive sense and strongly validates project activities focused on empowering girls in schools. Each point increase on academic self-efficacy resulted in an average increase in attendance of 5.8%. School belonging was also a strong predictor of attendance. Feeling a sense of belonging to one's school leads to higher average attendance.</p>

MercyCorps	Nepal	<p>The General Self-Efficacy (GSE) scores for of IS treatment girls was 34, a statistically significant increase of 2 points from the midline. One of the main reasons for the increase in girls' confidence was the IS girls' club. As the club modality required groups to be formed and every girl to lead her group in turn, everybody had a chance to speak up and proactively participate in the sessions. Another reason for increased self-confidence amongst girls was STEM's 'girls-to-community' approach. Going into the community and facilitating discussions and enacting plays to demonstrate their learning from Life Skills/Sexual and Reproductive Health (LS/SRH) classes, in year 2, girls say this has increased their confidence as this was not something most thought they could do before STEM. As a result, their participation in extra-curricular activities at school was also increased. This increase in confidence was also visibly evident during the Focus Group Discussions (FGDs) conducted by FDM, where girls were more forthcoming and vocal about their opinions than earlier. The 'girls-to-community' presentation was also a way to let the parents and rest of the community know what was being discussed at the STEM clubs. In the case of OOS girls, there was no change in the GSE scores from midline to endline. Both the control and treatment groups recorded an average GSE score of 32 in midline and endline. It should be noted that it is likely that the OOS girls, who were a part of LS/SRH and SLC clubs and experienced increased self-confidence, did not fall into the endline sample for quantitative survey. However, it was observed that they had become more forthcoming and confident, and this was noted during the FGDs.</p>
Red Een Kind	South Sudan	<p>Girl Education Movement (GEM) clubs in schools aimed at promoting self-confidence; self-expression; decision-making and conflict management skills will continue after the project because they are school based and have become part of school activities. Girl Education Movement patrons are teachers in schools who are paid by the government and have been trained by ACROSS. They will continue to train GEM club members. Interestingly GEM activities go even beyond the school, as it involves activities such as organizing music dance and drama activities out of school to educate the communities on girls' education. These are continuous activities and shall keep going in schools even after the phase out of the project as already demonstrated, and more importantly benefitting the wider community as well.</p>
Camfed International	Tanzania, Zimbabwe	<p>Evaluation evidence confirmed that the Learner Guide programme and the My Better World curriculum have had a statistically significant impact on girls' enjoyment of school</p>

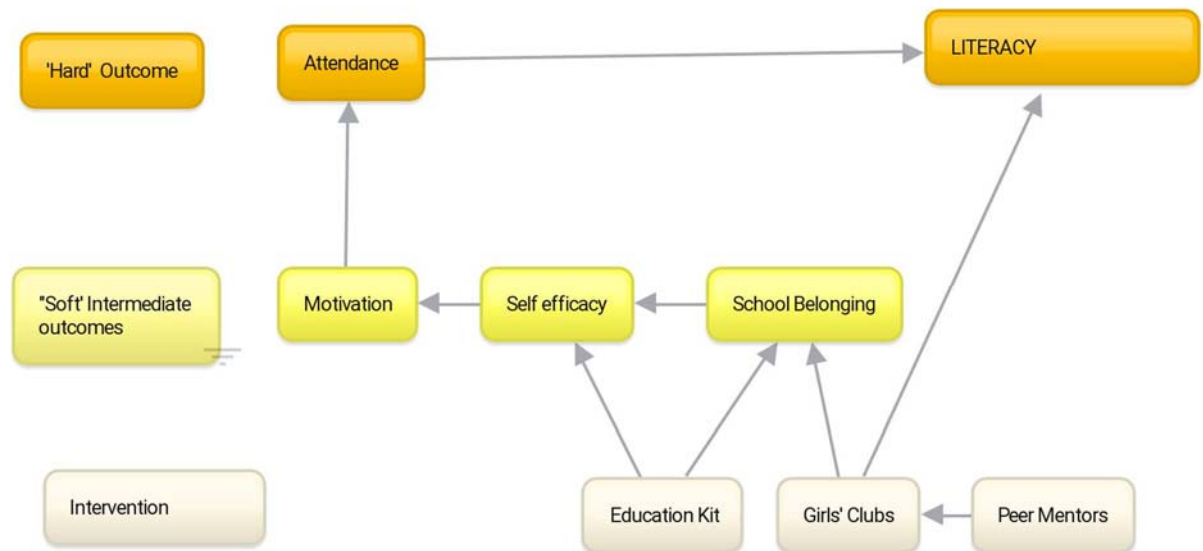
		and confidence in their academic progress in both countries and in Tanzania, had made them feel more integrated in society. The 'My Better World' life skills programme builds confidence, encourages goal-setting and helps students to recognise the importance of academic achievement in achieving their goals. In particular, the programme was found to help empower marginalised girls increase their self-awareness and build self-esteem. The qualitative research repeatedly refers to girls and boys in both countries referring to improved self- confidence, self-awareness, and ability to make choices.
PEAS	Uganda	Girls' Clubs to improve confidence, safety and aspirations. Senior Women Teachers: Appointment and training of a senior women teacher at each school to serve as a conduit between girls and school staff for raising girls' concerns and advocating for their needs. Through co-curricular activities, girls are taught entrepreneurial skills, agriculture and business skills. The girls' school clubs have introduced various IGAs based on the members' interests. Ninety five percent (95%) of the in-school girls mentioned that participating in IGAs and/or co-curricular activities motivates their attendance to stay in school year on year. The project implementation ensured appointment and continuous training of the Senior Women Teachers. Other project activities include empowering girls to express their gender specific issues, provision of counselling, guidance and support on gender related issues. To this end, the project activities achieved 63.4% compared to 80% set endline target of parents reporting that their daughters are more confident than other girls their age in their community.
Camfed	Zambia	5% of marginalised girls who had been exposed to the new pedagogy had high or medium levels of self-esteem at the endline (Logframe Indicator 3.1), exceeding the target, and nearly on par with less marginalised girls (78%). Self-esteem improved over time, and remained higher amongst less marginalized girls. The tracked cohort was 2.5 years older at the endline, and maturation undoubtedly accounts for some improvements in self-esteem (though girls who are older than their peers show statistically lower levels of self-esteem). Poverty and more challenging family situations that define marginality appear to continue to affect self-esteem, apparently most acute for a subset of the overall group of girls defined as marginalised. Preliminary findings suggest that the FEN boosts self-esteem. When students in New Camfed Only schools are compared with students in New Camfed + FEN schools the improvement in self-esteem amongst those exposed to the FEN is greater, a difference which is

		<p>statistically significant. Further, by the endline, students in FEN classrooms were statistically more likely to agree to the statement Teachers ask us to figure out answers on our own than students in Camfed only or Comparison classrooms—a positive sign that the pedagogy is having an effect on classroom practice. Further, academic self-esteem appears to be a strong predictor of attainment outcomes.</p>
World Vision	Zimbabwe	<p>Findings from the component-specific analysis indicate that marginalised girls exposed to Power Within and VSL had a significant improvement on learning outcomes, over and above control students. Between the midline and the endline, Power Within participants improved their reading fluency 18% above their control peers, indicating that the development of self-confidence and problem-solving skills among marginalised girls accelerates the acquisition of literacy skills. The effect is statistically significant and consistent across time. While not speaking specifically about their maths skills, girls spoke about how PW club activities have helped them become more confident in class. Being more confident learners likely improves their academic achievement in all subjects, including maths.</p>

Annex 2. Two project examples of the complex Causal Relationships between non-cognitive skills and literacy



Source: Data from endline report Discovery



Source: Data from endline report Save the Children Mozambique

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