

Life skills training

Technical Report for the Youth Employment in sub-Saharan Africa Toolkit



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Technical reports are intervention-specific summaries based a review of relevant studies from sub-Saharan Africa contained in the Youth Employment Evidence and Gap Map (EGM). This report is prepared by Howard White, The Research and Evaluation Centre. The meta-analysis was performed by Nina dela Cruz, Centre for Evidence-Based Social Sciences, Lanzhou University.

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About this technical report

This technical report is one of a series of technical reports being produced to document the evidence base for interventions to increase youth skills and employment in sub-Saharan Africa. The report is based on relevant studies for sub-Saharan Africa contained in the Youth Employment Evidence and Gap Map (EGM).

The purpose of this report is to inform the content of the What Works for Youth Employment in Sub Saharan Africa Toolkit. This report provides results from both the quantitative evidence from impact evaluations and the qualitative evidence from process evaluations. The former are the basis for the impact rating and the latter the lessons from implementation. The critical appraisal of the studies, which was undertaken for the EGM, provides the basis for the confidence in study findings.

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Abbreviations

BPY	Building the Potential of Youth
CLA	Collaborating, Learning and Adapting
DRC	Democratic Republic of Congo
EDC	Education Development Center, Inc
EGM	Evidence and Gap Map
ESSA	Employment Services of South Africa
EU	European Union
HIV/AIDS	Human immunodeficiency virus (HIV) / Acquired immunodeficiency syndrome (AIDS)
ICT	Information and Communication Technology
ILO	International Labour Office
IOM	International Organization for Migration
KSh	Kenyan Shillings
KYEP	Kenya Youth Employment Programme
K-YES	Kenya Youth Employment and Skills (K-YES) Programme
NGO	Non-Governmental Organization
OR	Odds Ratio
RCT	Randomized Controlled Group
SFC	Sport for Change
SMD	Standardized Mean Difference
UNDP	United Nations Development Programme
UNESCO	United Nations Education, Scientific and Cultural Organization

UNICEF	United Nations Children Fund
UNODC	United Nations Office on Drugs and Crime
USAID	United States Agency for International Development
Ush	Ugandan Shillings
WHO	World Health Organization
WRN	Work Ready Now
YES-JUMP	Youth Employment Support-Jobs for the Unemployed and Marginalised Young People

Plain language summary

<i>What is this report about?</i>	This technical report looks at the evidence in English of life skills training on skills, employment and earnings for young people in sub-Saharan Africa.
<i>What is life skills training?</i>	Life skills are broadly defined as knowledge, attitude and skills, comprising the psychosocial and interpersonal skills that are generally considered important for successful employment. Life skills can include basic skills in literacy and numeracy, practical skills like financial literacy, interpersonal skills, and support to job search such as interview technique. Many of these, especially the interpersonal skills, also go under the name soft skills.
<i>In what context are life skills training implemented?</i>	Life skills training is often offered as one component of a broader programme, either as part of a wider training course, or along with other interventions such as business start-up kits. Life skills training may be offered in schools or colleges as well as in a community setting.
<i>What are the main design choices?</i>	Some interventions sequence the components, starting with life skills to help build the confidence of the participants and support them in making informed choices for the other training modules they select, e.g. vocational modules.
<i>How is life skills training expected to work?</i>	Life skills are expected to increase the employability and the ability of a young person to start their own business. This may be on account of practical skills such as improved financial literacy, or better interview performance, but also from improved self-efficacy and interpersonal skills. The combination of life skills with other intervention components is expected to increase its effectiveness as the other components provide the chance to utilize these skills.
<i>What sort of activities do life skills training programmes support?</i>	Life skills training programmes may support curriculum development, training of trainers and direct support to life skills training for young people.
<i>Implementation issues</i>	First, courses are often of too short a duration for youth to acquire the life skills. Second, frequently there are funding constraints or delays meaning insufficient staff, or failing to reach as many young people as planned. Third, weak sustainability is an issue if local training institutions

	do not adopt the life skills curriculum, which is likely if the project used external trainers for delivery.
<i>The effects of life skills training</i>	<p>Overall, life skills training has a significant moderate size effect on employment, equivalent to an 11% increase compared to a comparison group not receiving life skills training. There is a similar size effect on skills and a slightly smaller effect on wages and earnings. The effects on business performance and material welfare are also positive, though not significant in the case of business performance.</p> <p>There is substantial variation in impact, which are associated with: (i) life skills training combined with other interventions has a substantially larger impact than life skills alone for employment, skills, and earnings; (ii) the effect is larger in mixed sex groups than for female groups only; and (iii) randomized controlled trials (RCTs) find smaller effects than non-RCTs.</p>
<i>Cost analysis</i>	There is no evidence on the cost-effectiveness of life skills training.
<i>How strong is the evidence base?</i>	Reported effect sizes are from just 15 effects from fourteen studies, though effects other than employment are from a smaller number of studies. The majority of impact evaluations are rated low confidence. Hence there is low confidence in the evidence of effects (impact evaluations). There is medium confidence in findings from implementation evidence from seven process evaluations.
<i>Implications for research</i>	Life skills as implemented by practitioners need to be more rigorously evaluated. Within-intervention studies on the most relevant curriculum for different population groups, e.g. graduates compared to those without secondary education, would be particularly useful.
<i>Implications for policy and practice</i>	The evidence supports the continuation of life skills training in combination with other interventions, both as part of a broader training programme but also combined with other interventions such as support to employment. Efforts should be made to build life skills into the national curriculum at secondary and tertiary level to ensure sustainability.

What is life skills training?

Life skills refer to the skills needed to deal with the issues and challenges people face so they can have a happy, successful life, but which are not the vocational or academic skills usually taught in the education system. But there is no agreed universal definition of life skills and they can cover a wide range of topics.

International organizations have offered various definitions which are quite general, sometimes to the point of tautology. An early definition is from the WHO according to which life skills build “abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life” (WHO, 1993).

An often-cited definition is that of UNICEF as “psychosocial and interpersonal skills that are generally considered important” (cited in UNFPA and UNICEF, 2019: 9). This vagueness is deliberate in that the specific life skills should be appropriate to the target group and planned purpose of the intervention, which may range from gender equality and sexual and reproductive health and rights to financial literacy for potential entrepreneurs.

Another UNICEF definition is “a behaviour change or behaviour development approach designed to address a balance of three areas: knowledge, attitude and skills” (cited in UNODC, no date). UNICEF-India’s Comprehensive Life Skills Framework has an expanded, more detailed definition that “life skills are a set of abilities, attitudes and socio-emotional competencies that enable individuals to learn, make informed decisions and exercise rights to lead a healthy and productive life and subsequently become agents of change” (UNICEF, no date: 7).

A UNESCO background document on understanding life skills lists ten areas supported by life skills training: decision-making, creative thinking, communication, self-awareness, coping with emotions, problem solving, critical thinking, interpersonal skills, empathy, and coping with stress (UNESCO, 2003: 4).

Life skills may also be referred to as soft skills, though some would see soft skills as a subset of life skills. A review of support to soft skills development in Africa concluded that “no single definition of soft skills serves all countries, cultures, policymakers, and funders” (USAID, 2021).

In the developing country context a broad and deliberately vague definition is most appropriate, so that it may be extended to include basic skills such as literacy, numeracy and financial literacy as well as interpersonal skills and more practical skills for job search such as preparing a CV and interview technique.

How is life skills training expected to work?

Life skills training can work through several channels. The most immediate is to increase employability or the ability of young people to start and run their own business. For the former, life skills training includes practical advice on CV preparation, interview technique and job search. Life skills training often includes financial literacy which can be important for youth wishing to start their own business. Indirectly, the training can help build self-efficacy, with an increase in confidence which helps the young person in securing and maintaining employment, ensuring adequate terms and conditions, or starting and running their own business.

The combination of life skills training with other interventions can increase the effectiveness of both. For example, vocational training may provide necessary skills for a job, which will help get an interview, but the life skills improve interview and job performance. Life skills can help with confidence and skills to run a business, but combining life skills with a start-up grant or connection to microfinance can help the young person start the business.

What are examples of life skills training in sub-Saharan Africa?

There are two key features of life skills interventions: (i) what is described as life skills training can vary greatly from intervention to intervention; and (ii) life skills training is often offered as part of a larger package, most commonly other types of training.

Examples of life skills interventions in the evaluations from the evidence and gap map included in this report are shown in Table 1. The studies have been selected to illustrate the different types of project including, and approaches to, life skills training.

Table 1: Examples of life skills training component

The <i>Youth Potential Activity</i> programme in Ethiopia provided life skills training alongside vocational and entrepreneurship development activities through partnerships with training, small business, and micro-finance institutions. Life skills training was “designed to help participants prepare for work, search for employment opportunities, prepare their CVs and write applications, and improve their knowledge of resources available for finding employment as well as for self-employment” (Chawla et al., 2018: 71-72).
A study in Ethiopia compared the effects on job search of two interventions initiated by the study team: life skills training and a transport subsidy for job search. The life skills intervention comprised a two-day workshop for job applications at which cognitive and mathematical ability were certified, as well as providing advice on effective job applications (Abebe et al., 2018).
The <i>Ninaweza</i> programme in Kenya was a 24-months youth employability initiative that provided young women with advanced training in information and communication technology (ICT), life skills training, work experience through internships, and job placement assistance. The life skills section covered topics including: self-awareness, emotional intelligence, problem-solving, goal setting, job hunting, and health practices. The course lasted eight weeks. Following that, the young women began an 8-week internship, which was followed by six months of work placement assistance (De Azevedo et al., 2013).
The <i>Kenya Youth Empowerment Project</i> (KYEP) provided two weeks of life skills training at the start of a three-month training course which included also core business training, and sector specific vocational training. This was followed by three months of work experience. (Honorati, 2015)
The <i>Somalia Youth Livelihoods Programme</i> provided both life skills and vocational training to youth who were then helped find internships or job placements. The life skills were adapted to the target group with graduates being provided “topping off skills, e.g. resume writing, job seeking” but the group with least education also receiving literacy and numeracy training (Cook and Younis, 2012: 12).
<i>Youth Map Uganda</i> had four components: (i) orientation and skills training, including life skills; (ii) internship placements; (iii) professional development support services, including mentoring, job placement services, and participation in an alumni network; and (iv) entrepreneurship training and facilitation of youth participation in activities in support of USAID’s Collaborating, Learning and Adapting (CLA) agenda. The life skills curriculum included “problem-solving and conflict

resolution, critical thinking and decision making, interpersonal relationships and communication skills, coping skills and flexibility, and community service” (Duggleby et al., 2015: 17).

Design choices

The examples in Table 1 illustrate a range of design choices such as content of the life skills training, and what other interventions are delivered alongside it and in what order.

Given the lack of a common definition, and the intentional generality of the UNICEF definition, it is unsurprising that a wide range of interventions go under the name of life skills in the included studies in this review. Examples of programme content fall into three categories:

- 1. Narrow focus on job-seeking skills:** The *Youth Livelihoods Programme* in Somalia provided graduates with job-seeking skills such as resume writing and preparing for interviews (Cook and Younis, 2012).¹ Similarly, the *Building the Potential of Youth Activity* (BPY) programme in Ethiopia (referred to also as the *Youth Potential Activity*) supported skills designed to help participants prepare for work, search for employment opportunities, prepare their CVs and write applications, and improve their knowledge of resources available for finding employment as well as for self-employment (Chawla, 2018).

- 2. Focus on soft skills:** In *Youth Map Uganda* life skills training covered problem-solving and conflict resolution, critical thinking and decision making, interpersonal relationships and communication skills, coping skills and flexibility, and community service (Duggleby et al., 2015), and in *Youth Reintegration Strategy* in South Sudan included personal skills (such as self-awareness, self-esteem, confidence, motivation) and social skills (including building relationships, working in groups, and organizational capacities (International Organization for Migration, 2019)).

¹ Other groups of youth were provided a broader range of life skills including literacy and numeracy.

3. Combined with a broader range of skills: *Youth Employment & Skills*

Development in Burkina Faso addressed basic skills development in both "soft" skills (e.g. technical, health, environment) and business-related skills (e.g. functional literacy and numeracy, basic accounting, business planning) (Kamil, 2013); *Creating Opportunities for Youth Employment in South Sudan* included functional literacy, peace building, reproductive health and gender equality (Carravilla, 2011; and Chiwara, 2012).

Life skills training is often not a stand-alone intervention. It is commonly combined with other sorts of training and sometimes with other interventions:

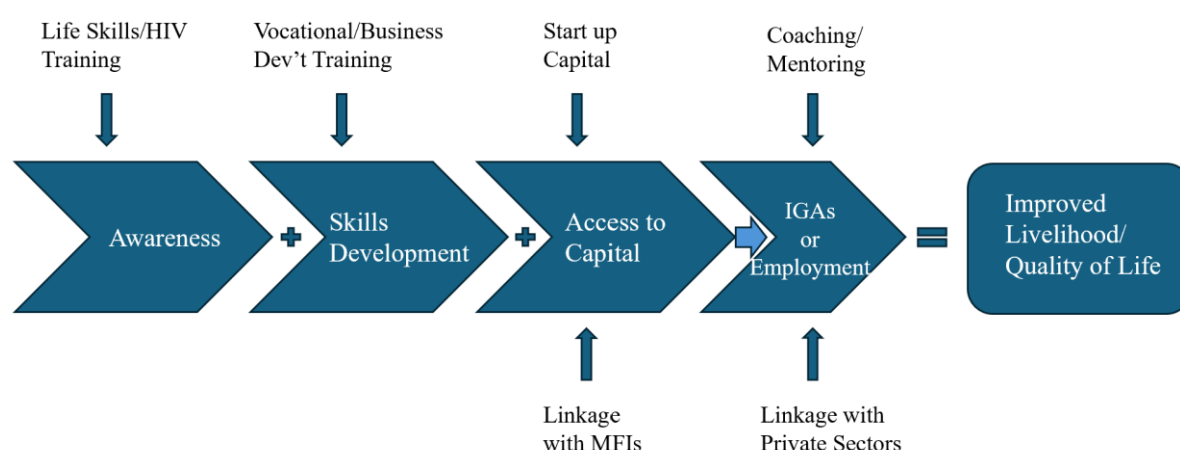
- **Combined with other training:** The *Kenya National Youth Development and Training Programme* included life skills as part of a broad training programme which include a range of vocational trades, communication skills, entrepreneurship skills, ICT studies, and technical drawing (Mburugu, 2011); and the *Joint Programme on Youth Employment* in Somalia also included business and entrepreneurship training, vocational training, and professional skills (Shumba, 2019).
- **Combined with other interventions:** The *Youth Employment Project* in Benin combined life skills training with several months of technical training followed by a cash start-up grant with continued networking and mentorship opportunities (Cherukupalli, 2019); and YES-JUMP in Kenya and Zimbabwe also included (i) capacity building for youth entrepreneurship, vocational training, (ii) micro-finance, and (iii) other business-related services (Karuga, 2012)

A gender component is also a common feature of life skills training. For example, (i) the programme in South Sudan is described as 'Life skills with an emphasis on functional literacy, reproductive health and gender equality' (Chiwara, 2012: 24); and (ii) an ILO evaluation of programmes in sub-Saharan Africa stated they included 'gender aspects on

girls' participation in employable skills and technical trades with a view to breaking the cultural and social barriers' (Wichmand, 2007: 22).

In three of the interventions in Table 1 (Benin, Ethiopia and Kenya) there was a **planned sequencing, with life skills training preceding the vocational element**. The sequencing is shown in the logic model for the project *Alternative Livelihoods for Youth Affected and Infected by HIV & AIDS through Skill Development and Youth Volunteering* in Ethiopia (Figure 1). As this was an HIV/AIDS programme, life skills first focused on women's rights and then informational content on training options. Sequencing in this way was done both so that young people had a chance for reflection on their career and training choices. Another example is the EU-funded project *Conflict prevention, peace and economic opportunities for the Youth* in Kenya which included initial life skills training for eight hours for up to two weeks, followed by three months of technical courses and finally a five-week internship (Altai-Consulting, 2019).

Figure 1: Sequencing of life skills training in 'Alternative Livelihoods for Youth Affected and Infected by HIV & AIDS through Skill Development and Youth Volunteering', Ethiopia



Source: Encore Employment, Training & Consultancy Services Plc (2013).

Life skills training is most commonly classroom-based. But in a programme run by Mercy Corps in Liberia life skills training was delivered alongside a sports intervention (Beaman et al. 2021), and in the project in Ethiopia (mentioned in the previous paragraph) life skills and other skills were also acquired through volunteering for activities such as environmental

cleaning, home-based care for orphans and elders (Encore Employment, Training & Consultancy Services Plc, 2013).

Two of the USAID-funded projects – in the Democratic Republic of Congo (DRC) and Rwanda - adopted the Education Development Center, Inc. (EDC) branded programme *Work Ready Now!* (WRN!) (Education Development Center, Inc., 2022 and Dexis Consulting Group, 2019, respectively). WRN! has core modules for life skills such as personal development, communication, job seeking, and workplace behaviour, which may be supplemented by other modules including civic engagement, digital literacy, health, and resilience.²

Most interventions used training of trainers so that existing staff at colleges, universities and vocational centres could deliver the training. Where this was not done then sustainability was likely to be an issue.

² <https://www.edc.org/work-ready-now>

What has been the implementation experience of life skills intervention?

Evidence of implementation of the interventions mainly comes from the process evaluations. However, the majority of the process evaluations of interventions including life skills training have little or no evaluative content with respect to the training. Most simply state that it was done, possibly with a short list giving the course content and numbers trained. But some evaluations do provide more information which is presented below.

The implementation issues which are raised are:

- **The difficulty of designing courses which can take in a wide range of participants, especially those who are illiterate, which is exacerbated by shortfalls in funding.** In Tanzania, for example, a basic education course which was a pre-requisite got cancelled because of lack of funding, so participants needing that course were unable to take part in the life skills programme (Wichmand, 2007).
- **Lack of support for sufficient staffing:** in a project in Rwanda, as courses were rolled out, the increasing pupil-trainer load meant that individual support could not be given. A move to peer support as a complement alleviated the problem somewhat but not in a fully satisfactory manner (Dexis Consulting Group, 2019).
- **Projects being too short, and underfunded, to develop and establish courses, and for youth to acquire the skills being taught in the length of course provided** (e.g. in South Sudan; Chiwara, 2012).
- UN projects may contain **multiple executing agencies which can create coordination problems and inefficiencies from having overhead from each agency** – this issue was mentioned for the project *Creating Opportunities for Youth Employment* in South Sudan (Chiwara, 2012).

- **Lack of sustainability** was raised as an issue in several studies. Sustainability of training courses was an issue for the *Kenya Youth and Skills Project* since the NGO in charge delivered the training through trainers it hired rather than existing training institutions (Management Systems International, 2017). But even when delivered through existing vocational training centres who wanted to incorporate life skills training into their regular curriculum it was not possible without external support. But this was managed in some other cases (e.g. whilst the government in DRC failed to adopt the curriculum supported by the USAID project *Integrated Youth Development Activity*, the Italian NGO Anna Micheli committed to doing so in the colleges it ran; USAID, 2022).

The effects of life skills intervention

Analysis of the average effects from impact evaluations finds that **life skills training has a positive impact on skills and employment, as well as a slightly smaller effect on earnings. There are also effects on business performance and material wellbeing** – though the former effects are statistically insignificant, which may be because of the small number of included studies. These findings are based on meta-analysis which averages the effect across all studies.

The average effect from meta-analysis is commonly reported as a standardized mean difference (d), which is the difference in the mean in outcomes between treatment and control, divided by the standard deviation of the outcome. Rather than d we report (Hedge's) g, which includes a small adjustment to d to account for bias in small samples. A g of less than 0.1 is considered a small effect, 0.1-0.2 is moderate and above 0.2 a large effect.

The meta-analysis (reported more fully in Annex 1) finds that life skills training has a statistically significant moderate impact on employment ($g=0.15$) and skills ($g=0.11$) (Table A.1 in Annex 1), with a slightly smaller, and still significant, effect on wages and earnings ($g=0.07$). There are also positive effects on business performance ($g=0.14$) and material welfare ($g=0.10$), but both are statistically insignificant, as they are based on a small number of studies. However, there is low confidence in these findings because of concerns about the included studies, and the small number of included studies for the business and material wellbeing outcomes.

The effect size can be translated into an absolute and relative change in employment (see Annex 2 for details of the calculation). **The average effect size for the impact on employment of $g=0.15$ is equivalent to a 13.5% increase compared to the control group.** This statistic can also be converted to the number needed to treat, which is 15 in this case. That is, for every 15 youth receiving life skills training, one enters employment who would not have done so otherwise.

There are 11 effect sizes for the impact of life skills training on employment from seven studies of effectiveness included for this technical report (see also summary in Table 2):³

There are 15 effect sizes for the impact of life skills training from 14 studies of effectiveness included for this technical report (see also summary in Table 2):⁴

- A university curriculum in Rwanda in which the first six months were focused on professional competencies intended to prepare students for the workforce. The curriculum emphasized career-relevant skills, such as English language, technology and problem-solving skills (Bier et al., 2019; rated low confidence). The intervention also included career support including guidance and networking events. The evaluation cannot separate out the effects of these different components. The study compared 47 participating students with 100 non-participating. Those who participated in the programme were twice as likely to be employed immediately after graduating, and able to secure jobs with higher salaries, longer hours, and written contracts compared to the comparison students (identified from non-participants using propensity score matching). The latter eventually caught up in terms of employment rates, but intervention group students continued to earn twice as much and work one third more hours (Bier et al., 2019).
- The *Ninaweza* programme in Kenya provided life skills training to young people as part of an 8-week course with advanced training in ICT, as well as providing six months work experience through internships, and job placement assistance. There were two treatment groups, one with ICT training, an internship and job placement support plus life skills training and the other without the life skills component, so it is possible to isolate the effect of including life skills. There was also an untreated control group. The eligible population were young women of Kenyan citizenship between the ages of 18 and 35 who lived in Nairobi's informal settlements, had

³ The meta-analysis uses the standard approach of averaging over the effects for the same outcome domain within a single study so there is one effect per treatment arm per study in the meta-analysis.

⁴ The meta-analysis uses the standard approach of averaging over the effects for the same outcome domain within a single study so there is one effect per treatment arm per study in the meta-analysis.

completed high school or had been out of school for at least one year and were unemployed at the time of application. A total of 1,230 women were recruited, approximately half of whom were assigned to the intervention. Both treatment groups were more likely than the control group to have a more active search strategy. Of those who were previously unemployed 39% of those receiving the full treatment including life skills entered employment, as did 34% of those not receiving life skills training, and 26% of the control group.⁵ Both treatment groups also experienced a statistically significant larger increase income compared to the control group. The effect was smaller for the group receiving life skills training, though this difference is not statistically significant (De Azevedo et al., 2013; rated high confidence).

- The intervention in Addis Ababa, Ethiopia, compared two different treatments. The first was the life skills intervention which consisted of a two-day workshop for job applicants which provided certification for cognitive and mathematical ability as well as advice on effective job applications. The second was a transport subsidy which covered two-thirds of the expenditure of transport costs incurred in job searching. The eligible population were youth 18 years and older but less than 30 years, who had completed at least high school and were not in full-time education or permanently employed. Neither intervention affected employment or wages, but the life skills training did increase the likelihood of a permanent job (24% in the treatment group compared to 17% in the control group), and of having a written contract (27% in the treatment group compared to 22% in the control group). (Abebe et al., 2018; rated high confidence).
- The study of Abel et al. (2019; rated medium confidence) added a job search planning module to a 90-minute job search workshop offered by the Department of Labour in South Africa to unemployed youth who were registered with the Employment Services of South Africa (ESSA). Just over 1,000 youth were randomly

⁵ The difference between both treatment groups and the control is significant at the 5% level, and the difference between the two treatment groups significant at 10%.

assigned to receive the standard 90-minute workshop ('treatment'), the workshop with the additional module ('treatment plus'), or were referred to an untreated control group which did not attend the workshop. The interventions did not affect the time spent on job search, but adding job search planning to the workshop increased the number of applications per month by 18% compared to the control group, as well as improved employer responses (by 30%) and subsequent employment (by 26%). The group attending the workshop alone experienced no difference in outcomes compared to the untreated control group. The study also examined adding peer support or text reminders, but neither had any additional effects.

- The *Akazi Kanoze* programme in Rwanda for youth aged 14 to 35 had three components. The first was life skills which covered personal awareness, communication, professional conduct, financial literacy, personal health, and rights and responsibility. The second was workforce development skills training and resource programmes. The third provided workforce linkages which included opportunities like internships and apprenticeships. The evaluation cannot disentangle the effect of these different components. The study was an RCT of 600 youth who were equally divided between the treatment and control groups. Employment fell during the study period for both treatment and control group. But at endline, the treatment group was more likely to be employed than the control group: 62% compared to 48% in the control group. (Alcid, 2014; rated low confidence).
- *Sport for Change* (SFC) in Liberia combined 16 football sessions with life skills training in topics such as resilience, planning, and self-esteem. Recruitment of unemployed out-of-school youth aged 15 to 25 was through public announcements with selection into the treatment through a public lottery. The intervention had a significant positive impact of 11-12% on both hours worked and earnings (Beaman et al., 2021; rated low confidence).

- A programme for youth at risk of involvement in violence in Liberia provided life skills training as part of residential agricultural training which also provided capital inputs. A total of 1,123 men were recruited for the programme over half of which were assigned to the treatment. Nearly 76% of the treatment group engaged in farming compared to 60% of the control group. There was no effect on total hours worked, though a greater proportion of the treatment group switched their time to agriculture (Blattman and Annan, 2016; rated medium confidence). The study finds positive programme effects on farm employment and profits over a year after the intervention. Reduced interest in mercenary work was also observed.
- The *Kenya Youth Empowerment Project (KYEP)* provided two weeks of life skills training at the start of a three-month training course which included also core business training, and sector-specific vocational training. This was followed by three months of work experience. The evaluation cannot disentangle the effect of these different components. The target group comprised young people in Nairobi and Mombasa who were aged between 15 and 29, had completed at least eight years of schooling, had been out of school for at least one year, and were unemployed at the time of application. There was no effect on starting a new business or self-employment. But there was an increase in male employment of 15%, and in overall hours worked (26 versus 23 hours). There was also a significant increase in wages compared to the control group: around KSh. 5,000 for male, and KSh. 7,500 for females (Honorati, 2015; rated low confidence)
- *Zimbabwe Works* provided three to five days of training to young people aged between 20 and 35, including out-of-school youth, recent secondary school and university graduates, and university students, who had been running businesses for at least six months. The training was focused heavily on developing business plans. The trainees were also trained in financial literacy and encouraged to formalise both record keeping and business accounts. Other training modules focused on marketing, social media, customer relationships, and ethics. About one month after completing the training participants were referred to a microloan organisation. The study was a RCT in which participants were assigned to receive either the training or

training plus loan, or the untreated control. The training alone resulted in an increase in revenue of US\$99 a month (US\$42 in profits), and training plus loan in US\$362 higher revenue (US\$117 in profits) than the control group (James et al., 2018; low confidence)

- The *Youth in Youth Clubs* programme in Uganda randomly granted access to savings account and financial education. It had four groups including the control group: (i) one group received financial education, which was offered in the form of a 10-week, 15-hour curriculum, focusing on formal financial systems, saving practices, savings costs, and benefits; (ii) the second group received a basic savings account, which were offered with easy access to a basic savings account with the financial services NGO, FINCA; (iii) one group received both financial education and savings account; and (iv) the control group received neither. There were 60 youth clubs (each having at least 12 members) in each study arm. The treatment groups had a higher number of days worked over the last 90 days: 42.5 days (plus 1.4) for the savings account group, 42.7 days (plus 1.6) for the education group, and 43.4 (plus 2.3) for those receiving both treatments, compared to 41.1 in the control group (so there is a 6% increase in the combined group compared to control). Higher income over the last 90 days of plus Ush 30,693 was observed for the savings account group, plus Ush 23,725 for those receiving financial education only, and plus USh 34,143 for those receiving both (compared to control earnings of USh 232,824 so that a 15% increase for the combined group was identifiable) (Jamison et al., 2014; rated low confidence).
- Youth aged 15 to 19 who were already enrolled in a work readiness course in South Africa were randomly assigned to receive four hours training to join and use LinkedIn Online professional networking platform. They were trained to open accounts, build their profiles, make connections, and search and apply for jobs. At the end of the intervention 77% of the treatment group were in employment, compared to 70% in the control group, representing a 10% increase (Wheeler et al. 2022; rated high confidence).

Table 2: Studies of life skills training interventions in sub-Saharan Africa

Study	Intervention	Findings
De Azevedo et al. (2013)	<i>Ninaweza</i> : Life skills training to young people as part of an 8-week course with advanced training in ICT, Kenya	Employment: Life skills: 39% Control group: 26%
Abebe et al. (2018)	Two-day workshop providing advice on job applications and certification for cognitive and mathematical ability, Ethiopia	Employment: Life skills: 24% Control: 17% Written contract: Life skills 27% Control 22%
Abel et al. (2019)	Department of Labour Job Search Workshop: 1/ 90-minute job search workshop 2/ workshop plus job search planning module ('job search plus') South Africa	Job search plus versus control: Time spent on job search: No effect Applications per month: 18% higher than control Employer response: 30% Employment: 26% Workshop only: No effects versus control
Alcid (2014)	<i>Akazi Kanoze</i> : Life skills training: personal awareness, communication, professional conduct, financial literacy, personal health, and rights and responsibility, Rwanda	Employment: Participants: 62% Control: 48%
Beaman et al. (2021)	Sport for Change: Sixteen football sessions with life skills training in topics such as resilience, planning, and self-esteem, Liberia	Participants versus control: Hours worked: 11-12% higher Earnings: 11-12% higher
Blattman and Annan (2016)	Life skills training as part of residential agricultural training for youth at risk of involvement in violence, Liberia	Engaged in farming: Participants: 76% Control: 60%
Honorati (2015)	Kenya Youth Empowerment Project (KYEP): Two weeks of life skills training at the start of a three-month training course, Kenya.	Participants versus control: Employment (male): 15% Hours worked: extra 3 hours (26 versus 23 hours) Wages: KSh. 5,000 (US\$5) for male, and KSh. 7,500 (US\$7.50) for females
James et al. (2018)	Zimbabwe Works: Business-oriented training included financial literacy, customer relations and ethics, Zimbabwe	Participants versus control: Revenue: US\$99 a month Profits: US\$42 a month

Study	Intervention	Findings
Jamison et al. (2014)	Youth in Youth Clubs: 1/ Financial education 2/ Financial education with loan, Uganda.	Increase in income Financial education: Ush 23,725 (US\$10) over 90 days Financial education and loan: USh 34,143 (US\$14) over 90 days
Wheeler et al. (2022)	Four hours training to join and use LinkedIn	Participants versus control: Employment: 77% Control: 70%

Examining the variation in effect sizes

There is substantial variation in the effects between studies (see Annex 1). The sub-group analysis identifies factors which are associated with this variation (see Figure 2 and Table A.1):

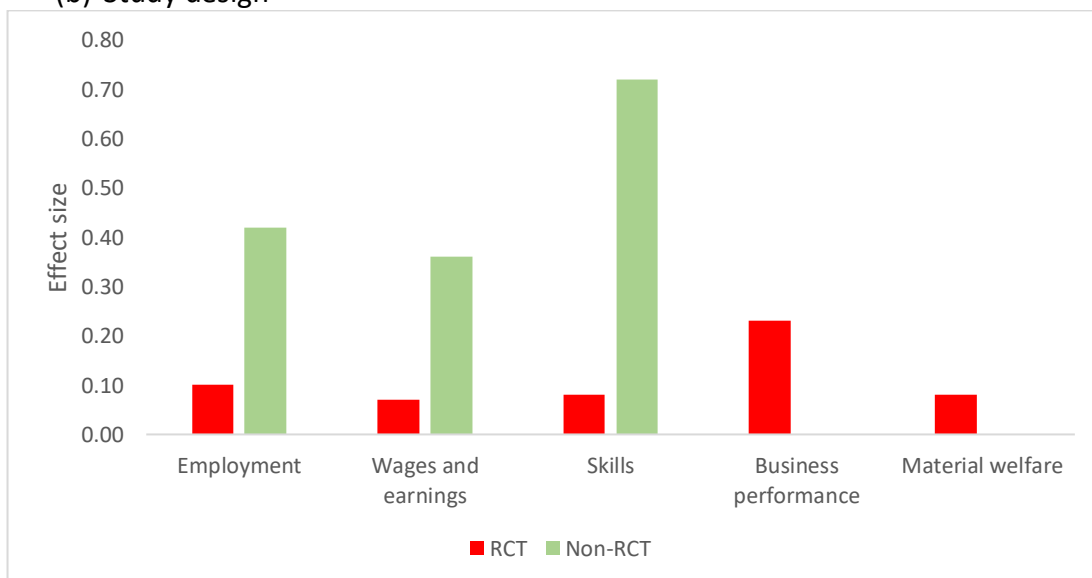
- **Life skills training combined with other interventions (i.e. multicomponent) has a larger effect than life skills alone (single component).** The effect of multicomponent interventions including life skills training is $g=0.17$, whereas life skills training alone has only $g=0.03$. This difference holds across all outcomes other than material wellbeing where there is a small difference in favour of single component interventions, but there are only few studies for that comparison.
- With respect to study design, **RCTs consistently find substantially smaller effects than non-experimental designs.** For example, the effect on employment is $g=0.10$ for RCTs compared to $g=0.42$ for the non-RCTs. This finding conforms with Rossi's (1987) 'Iron Law of Evaluation' that more rigorous designs find smaller effects, and is a common result in systematic reviews. Whilst these are other confounders (the non-RCTs are all of multicomponent programmes) the results are suggestive of some residual selection bias in the non-RCT findings.
- **Programmes delivered to both males and females have larger effects than those delivered to females alone.** This may reflect the constraints on female employment being greater than those for males, rather than these programmes being inherently less effective.

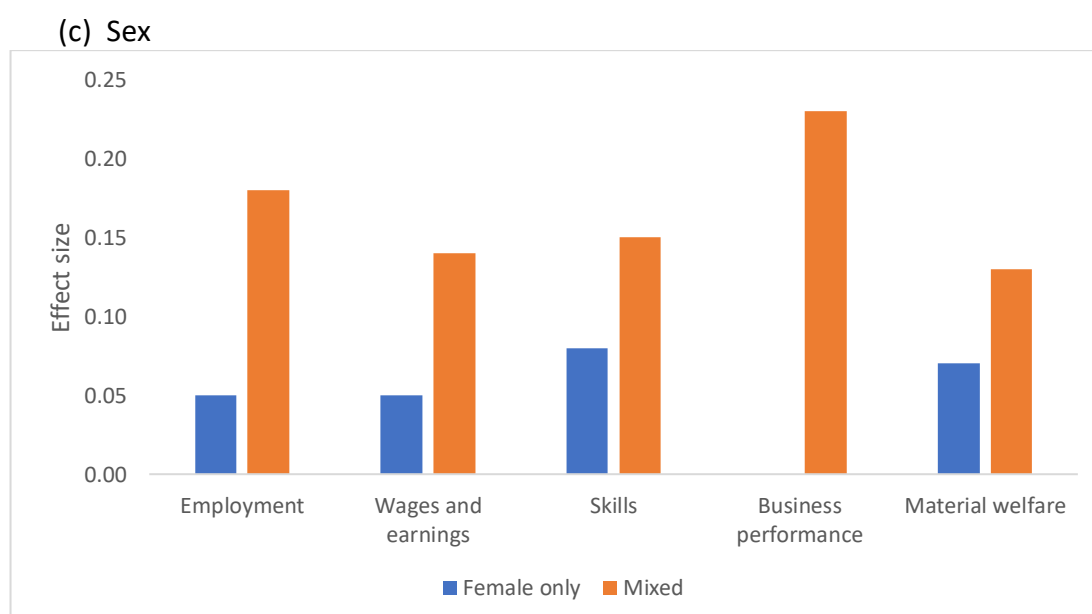
Figure 2: Effect sizes for life skills training by sub-group

(a) Intervention design (single component versus multicomponent)



(b) Study design





Source: Author's calculations.

Support for the causal chain

The process evaluations provide evidence which support the findings of effectiveness reported above, mostly by direct quotes from young people and people who work with them. It should be remembered that there are many sources of positive bias in qualitative evaluations which are seldom addressed. So, whilst these quotes lend support to the operation of the causal processes, it is not clear how representative they are.

First, there are direct statements of the value of the intervention, and sometimes specifically the life skills component:

- *I have learned in five months what I would never have learned in five years of school work (from volunteering) (National Youth Volunteer Service Project: Liberia, see Matos, 2010: 17).*
- *Three weeks of soft-skills training were more important to my employment than all I learned in three years at university (BPY, Ethiopia, see Statman and Abera, 2020: 15).*

- A trainer commented that participants *“can call you and tell you, ‘Teacher, now I know how to communicate to my customers. Before I did not know’”* (K-YES, Management Systems International, 2017: 21).

Second, there are examples of the benefits of support to job search and applications:

- *“Job-seeking skills such as resume writing and preparing for interviews were seen by trainees as valuable tools essential for accessing the job market. Provision of this kind of skill was not common in the country and trainees were overwhelmingly appreciative of it”* (Youth Livelihoods Programme, Somalia, see Cook and Younis, 2012: 7).
- Youth beneficiaries noted that the training helped them see the realities of work, showed them how to prepare for work, and gave them hope for their careers (K-YES, Kenya, see Management Systems International, 2017).

Third, the most commonly reported claim supporting a causal effect is that participation in life skills training built confidence:

- ‘A female participant in a course in Uganda stated that when her supervisor did not provide the internship stipend that was due, *“I became assertive and demanded for what belonged to me. I went to the higher people”* (Youth Map Uganda, see Duggleby et al., 2015: 17).
- Similarly, a female *Work Ready Now!* trainee in Rwanda stated that *“The leadership module helped me to understand that I am a leader. Today we learned communication and I learned a lot: a good mindset. Working with others. Expanding my business...Before I wouldn’t stand up and express myself. From the first module it was the first time I could talk to my peers. I was very shy. Before I wouldn’t have initiative to call someone for a job. But now I have started communicating information”* (Dexis Consulting Group, 2019: 44).

- *“Attitude is key. Prior to BPY, youth did not believe in themselves and looked to government to support them. Now they have the freedom to take opportunities (Ethiopian official, quoted in: Statman and Abera, 2020: 14).*
- *“[The life skills training] completely changed the attitudes of the youth, who were previously sitting around doing nothing [but] are now working”. (BPY, Ethiopian official, Statman and Abera, 2020: 14).*
- Most of the employers and sponsors associated with YES-JUMP in Kenya and Zimbabwe described skill enhancement in the areas of communication, working with others, and particularly self-confidence (ILO, 2010).
- Many youth reported that life skills training helped them clarify what is expected of them and helped them think about what they want to do with their lives, and some changed courses as a result; e.g. K-YES (Management Systems International, 2017).

Fourth, there are claims of positive effects on female empowerment:

- A few female respondents reported gaining a sense of independence in terms of their ability to join farmer groups, speak in public, make their own decisions, and stand on their own in case their partners decided to leave them. Young men also spoke of changes in their attitudes: *“We were encouraged that men should not be the only ones to engage in selling the product, but also involve the women” (Youth Leadership for Agriculture, Uganda, Ramirez, 2020: 12).*
- Some courses also encouraged women to consider traditionally male vocations. For example, in Kenya *“women were particularly encouraged to consider going into traditionally male vocations, such as plumbing and motor vehicle mechanics, and some chose to do so” (K-YES, Management Systems International, 2017: 29).*
- In a context where sex in exchange for employment or promotion is the norm rather than the exception, life skills training can empower women to withstand these

advances: *“The foundation training was the best thing that happened and gave me confidence at placement as I met challenges of sexual harassment at my placement workplace”*, (Youth Map Uganda, Duggleby et al., 2015: 27).

Fifth, the combination of life skills with other training is also claimed to be efficacious:

- “Combination of workplace technical and life skills training before placement—especially on career development and life skills—better prepared youth participants for the workplace” (Youth Map Uganda, Duggleby et al., 2015).

Cost analysis

No studies present findings with respect to costs and cost-effectiveness.

Implications of study findings

Life skills is broadly interpreted to encompass a broad range on non-vocational skills including inter-personal skills, other work place skills, financial literacy and also basic numeracy and literacy. training can improve employment outcomes especially when offered as a component in a multi-component intervention.

Implications for policy and practice

The major implication is that life skills training is effective, especially when implemented as a component in a larger programme. The meaning of life skills has been liberally interpreted, which seems appropriate given the wide range of target population, purpose and context.

The training involved should be of sufficient duration for the participants to assimilate the material.

Time and planning are required to ensure that sufficient suitably trained staff are available to deliver the training. Incorporating the material into the curriculum of existing education and training institutions, using their trainers, will help ensure sustainability (although the benefits of complementary interventions needs to be accommodated).

Programme funders and implementers could usefully support impact evaluations to explore the effectiveness of different life skills modules with different target groups, and different combinations of interventions with life skills. These would preferably be RCTs with multiple treatment arms to disentangle the effects of the different treatments.

Implications for research

Programmes on life skills training as implemented by practitioners (rather than as a part of researcher-designed and run interventions) need to be more rigorously evaluated.

Within-intervention studies on the most relevant curriculum and effective duration for different population groups would be particularly useful.

References

Abebe, G., Caria, S., Fafchamps, M., Falco, P., Franklin, S., and Quinn S. (2018). Job Search and Labour Market Exclusion in a Growing African City. SERC Discussion Papers 0224, Centre for Economic Performance, LSE.

Abel, M., Burger, R., Carranza, E., and Piraino P. (2019). Bridging the intention-behavior gap? The effect of plan-making prompts on job search and employment. American Economic Journal: Applied Economics, 11(2), pp.284-301.

Adablah, C. and Bockarie, P. (2018). End of Programme Evaluation of The Youth Employment and Empowerment Programme (YEEP). New York: UNDP, p.43. Available at:

<https://erc.undp.org/evaluation/documents/download/12462>

Alcid A. (2014). A randomised controlled trial of Akazi Kanoze youth in rural Rwanda. United States Agency for International Development. USAID, p.62. Available at:

<https://www.edc.org/randomized-controlled-trial-akazi-kanoze-youth-rural-rwanda>

Altai Consulting. (2019). Conflict prevention, peace and economic opportunities for the Youth: Lessons learned from a consortium approach to stability and conflict prevention in Kenya. Altai Consulting.

https://trust-fund-for-africa.europa.eu/system/files/2019-02/mls_kenya_youth_case_study_021219.pdf

Bandiera, O., Buehren, N., Burgess, R., Goldstein, M., Gulesci, S., Rasul, I., and Sulaiman M. (2012). Empowering adolescent girls: Evidence from a randomised control trial in Uganda: World Bank, p.45. Available at: <https://openknowledge.worldbank.org/handle/10986/25529>

Bandiera, O., Buehren, N., Burgess, R., Goldstein, M., Gulesci, S., Rasul, I., and Sulaiman M. (2020). Women's empowerment in action: evidence from a randomized control trial in Africa. American Economic Journal: Applied Economics, 12(1), pp.210-59.

Beaman, L., Herskowitz, S., Keleher, N., and Magruder J. (2021). Stay in the Game: A Randomized Controlled Trial of a Sports and Life Skills Program for Vulnerable Youth in Liberia. *Economic Development and Cultural Change*, 70(1), pp.129-158.

Bier, R., Chibwana, C., Lokur, R., and McManus J. (2019). Addressing the youth skills gap through university curricula: Evidence from a quasi-experimental evaluation in Rwanda. : African Development Bank.. Available at:
https://aec.afdb.org/sites/default/files/papers/286-chibwana_christopher-addressing_the_youth_skills_gap_through_skills-based_university_curricula_in_rwanda.pdf

Blattman, C. and Annan J. (2016). Can employment reduce lawlessness and rebellion? A field experiment with high-risk men in a fragile state. *American Political Science Review*, 110(1), pp.1-17.

Borenstein, M., Hedges, L., Higgins, J., and Rothstein H. (2009). *Introduction to Meta-Analysis*. Chichester: Wiley.

Carravilla, C. (2011) Creating opportunities for youth employment in South Sudan - Mid Term Joint Evaluation. MDG Achievement Fund.
<http://www.ilo.org/evalinfo/product/download.do?type=document&id=15825>

Chawla, D. (2018) Building the Potential of Youth Activity Youth Cohort Study – Midline Report, Africa. USAID. [PA00TDXB.pdf \(usaid.gov\)](#)

Cook, G. and Younis, A. (2012). Somalia youth livelihoods program final evaluation. USAID.
<http://www.careevaluations.org/wp-content/uploads/evaluations/somali-youth-livelihoods-program.pdf>

De Azevedo, T.A., Davis, J., and Charles M. (2013). Testing what works in youth employment: Evaluating Kenya's Ninaweza program. World Bank. Available at:
<https://iyfglobal.org/library/testing-what-works-youth-employment-evaluating-kenyas-ninaweza-program>

Dexis Consulting Group. (2019). Huguka Dukore Akazi Kanoze Performance Evaluation, Rwanda. USAID. https://pdf.usaid.gov/pdf_docs/PA00WGVG.pdf

Duggleby, T., Kapoor, R., and Lai C. (2015). Evaluation Youth Map Uganda: final report. Washington DC: USAID, p.90. Available at: https://pdf.usaid.gov/pdf_docs/PA00TCT9.pdf

Education Development Center. (2022). USAID/DRC integrated youth development activity (IYDA) in the Democratic Republic of Congo final program performance evaluation. USAID. [PA00ZRFN.pdf \(usaid.gov\)](#)

Encore Employment, Training and Consultancy Services Plc. (2013). Alternative Livelihoods for Youth Affected and Infected by HIV & AIDS through Skill Development and Youth Volunteering in Africa. UN Volunteers. <https://erc.undp.org/evaluation/evaluations/detail/7014>

Honorati, M. (2015). The impact of private sector internship and training on urban youth in Kenya : World Bank Policy Research Working Paper 7404. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/468501468185042536/the-impact-of-private-sector-internship-and-training-on-urban-youth-in-kenya>

ILO. (2010). YES-JUMP: Youth employment support jobs for the unemployed and marginalised young people in Kenya and Zimbabwe - Final Self Evaluation. ILO. <http://www.ilo.org/evalinfo/product/download.do?type=document&id=12683>

IOM. (2019). Final evaluation of the Beyond Bentiu Protection of Civilian Site (PoC) Youth Reintegration Strategy, Sudan. International Institute of Migration. <https://erc.undp.org/evaluation/evaluations/detail/11092>

International Youth Foundation. (2010). Education and Employment Alliance: an evaluation of partnerships in support of youth employability - Global Report. Baltimore: International

Youth Foundation, p.49. Available at:

https://iyfglobal.org/sites/default/files/library/EEA_Final_Global_Evaluation_Report_Executive_Summary.pdf

James, V., Carlson N., Frieder, R.A., Milanzi, A., Yekeye, I., and Nyamwanza T. (2018). Impact Evaluation Report Zimbabwe: Works: p.60. Available at:

https://pdf.usaid.gov/pdf_docs/pa00sxbh.pdf

Jamison, J.C., Karlan, D., and Zinman J. (2014). Financial Education and Access to Savings Accounts: Complements or Substitutes? Evidence from Ugandan Youth Clubs: NBER, Available at: <https://www.nber.org/papers/w20135>

Karuga, S. (2012) YES-JUMP: Youth Employment Support - Jobs for the Unemployed and Marginalised Young People in Kenya and Zimbabwe - Final Evaluation. ILO.

<http://www.ilo.org/evalinfo/product/download.do?type=document&id=9988>

Management Systems International. (2017). Mid-term performance evaluation of the Kenya Youth Employment and Skills program (K-YES). Washington DC: USAID, p.92. Available at:

https://pdf.usaid.gov/pdf_docs/PA00N46X.pdf

Matos, A.C.G. and Zidi-Aporeigah V. (2008). Review of National Youth Volunteer Service Project: Liberia. UN Volunteers. <https://erc.undp.org/evaluation/evaluations/detail/3143>

Mburugu, J. (2015). Kenya National Youth Development and Training Programme. UNDP. <https://erc.undp.org/evaluation/evaluations/detail/6697>

Nycanda, L. (2008). Child Labour and Youth Employment Linkages (Phases I and II) - Final Evaluation. Geneva: ILO, p.52. Available at:

<http://www.ilo.org/evalinfo/product/download.do?type=document&id=6813>

Ramirez, M.R. (2020). Youth Leadership for Agriculture (YLA): End-of-activity evaluation in Uganda. USAID. https://pdf.usaid.gov/pdf_docs/PA00WQWR.pdf

Rossi, P. (1987). The iron law of evaluation and other metallic rules. Research in social problems and public policy, 4(1), pp.3-20.

Shumba, C., Abdi, A.H., and Hassan, I.M. (2019) Joint Programme on Youth Employment in Somalia. UNDP <https://erc.undp.org/evaluation/evaluations/detail/12343>

Simmons, A., Sandy, D., and Balay, G. (2015). Final Report on the Evaluation of the Youth Employment and Empowerment Programme (YEEP). New York: UNDP, p.74. Available at: <https://erc.undp.org/evaluation/evaluations/detail/6426>

Singh, M. (2014). Understanding Life Skills. Background paper* prepared for the Education for All Global Monitoring Report 2003/4. Paris: UNESCO. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000146963>

Statman, J.M. and Abera, M. (2020). Final performance evaluation of USAID/Ethiopia's Building the Potential of Youth Activity. Washington DC: USAID, p.106. Available at: https://pdf.usaid.gov/pdf_docs/PA00WJD2.pdf

UNFPA and UNICEF. (2019). Boys on the Move: A trainer's handbook for implementation of a Life Skills Programme for Unaccompanied Adolescents Boys and Young Men. UNFPA Regional Office for Eastern Europe and Central Asia Istanbul, Turkey and UNICEF Regional Office for Europe and Central Asia Geneva, Switzerland. Available at: https://eeeca.unfpa.org/sites/default/files/pub-pdf/BOTM_F_ENG.pdf

UNICEF (no date). Comprehensive Life Skills Framework Rights based and life cycle approach to building skills for empowerment.
Available at: <https://www.unicef.org/india/media/2571/file/Comprehensive-lifeskills-framework.pdf>

USAID. (2021). Soft Skills and Youth Workforce Development in Sub-Saharan Africa: Study Brief. Washington D.C.: USAID. Available at: https://pdf.usaid.gov/pdf_docs/PA00XSQ3.pdf

USAID. (2022) USAID/DRC integrated youth development activity (IYDA): midline cohort 4 outcome evaluation report, Africa. USAID. https://pdf.usaid.gov/pdf_docs/PA00ZS15.pdf

UNODC. (no date). Life and Social Skills. URL:
<https://www.unodc.org/unodc/en/prevention/life-and-social-skills.html>

Wheeler, L., Garlick, R., Johnson, E., Shaw, P., and Gargano M. (2022). LinkedIn (to) job opportunities: Experimental evidence from job readiness training. *American Economic Journal: Applied Economics*, 14(2), pp.101-25.

Wichmand. (2007). Skills training strategies to combat WFCL in urban informal sector in Sub-Saharan Anglophone Africa - Final Evaluation. ILO.
<http://www.ilo.org/evalinfo/product/download.do?type=document&id=6809>

WHO. (2003). Skills for health: skills-based health education including life skills: an important component of a child-friendly/health-promoting school. Geneva: World Health Organization.

Annex 1 Results of meta-analysis

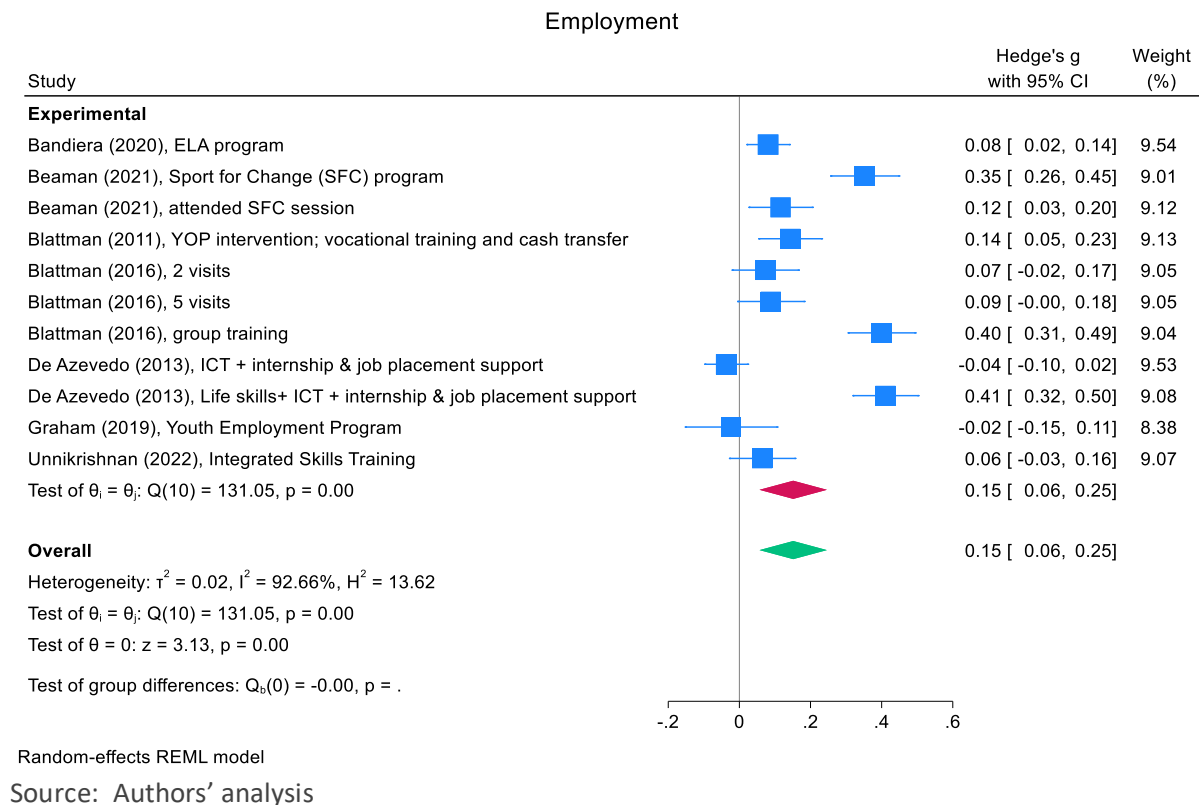
This annex presents the forest plots from the included studies for this report. Each horizontal line in a forest plot shows the 95% confidence interval for Hedges' g for a specific study, with the meta-analysed effect size represented by the diamond at the bottom of the figure. If the horizontal line crosses the vertical line then that study finds no significant effect.

The I^2 and Q statistic are measures of heterogeneity, that is the extent of variation in effect sizes between studies. Where there is substantial variation (as in Figure A.1), then it is useful to conduct further analysis to understand the sources in that variation, which is presented in the subgroup analysis.

The results show that life skills training has a statistically significant moderate impact on employment ($g=0.15$) and skills ($g=0.11$) (Table A.1.q1 in Annex 1), with a slightly smaller, and still significant, effect on wages and earnings ($g=0.07$). There are also positive effects on business performance ($g=0.13$) and material welfare ($g=0.10$), but both are statistically insignificant, as they are based on a small number of studies.

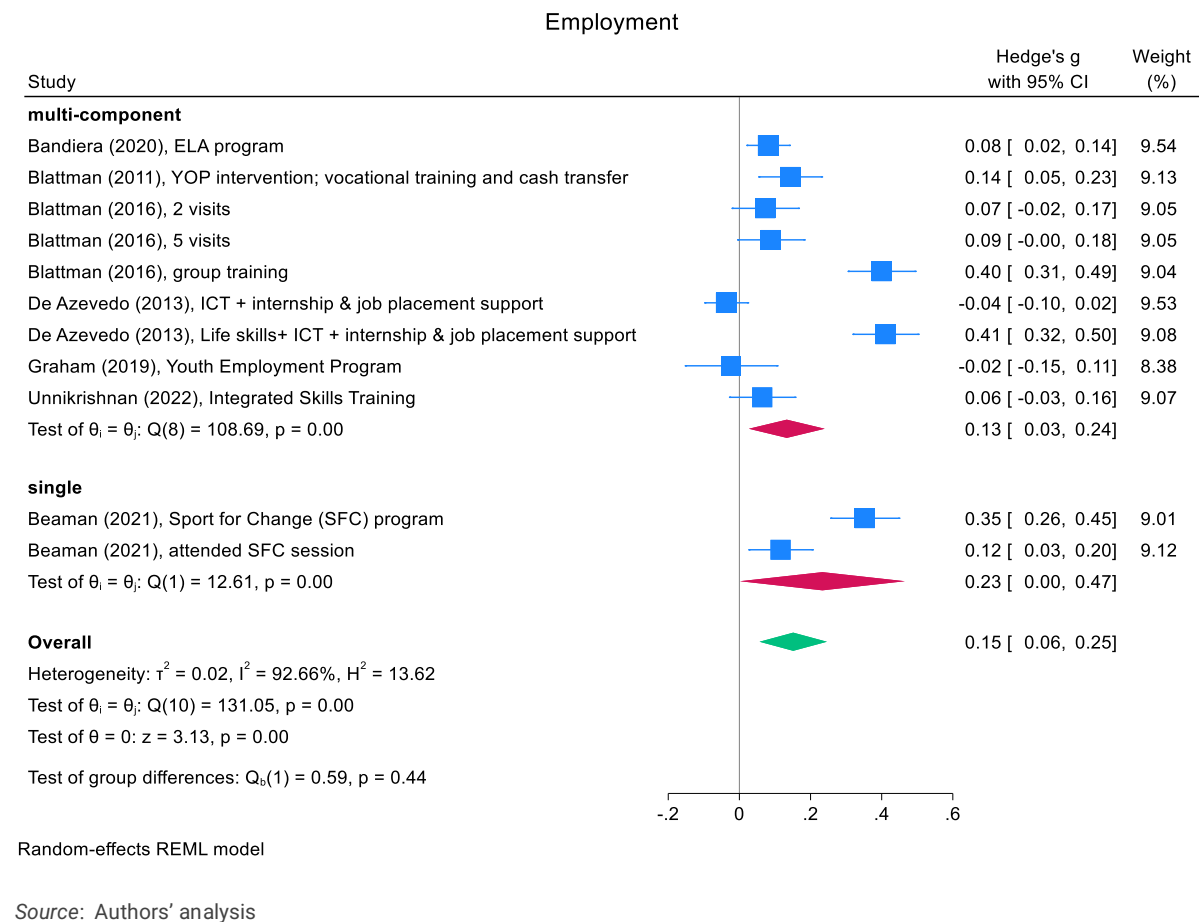
The forest plots for all estimates are given in Annex 1 (see figures A.1.1 to A.1.8). In the forest plot each horizontal line is the 95% confidence interval for the effect from one study, with the point in the middle showing the estimated standard mean difference (i.e. the difference in means between treatment and control divided by the standard deviation of the outcome) as measured by Hedge's g .

Figure A1.1: Effect of life skills interventions on youth employment



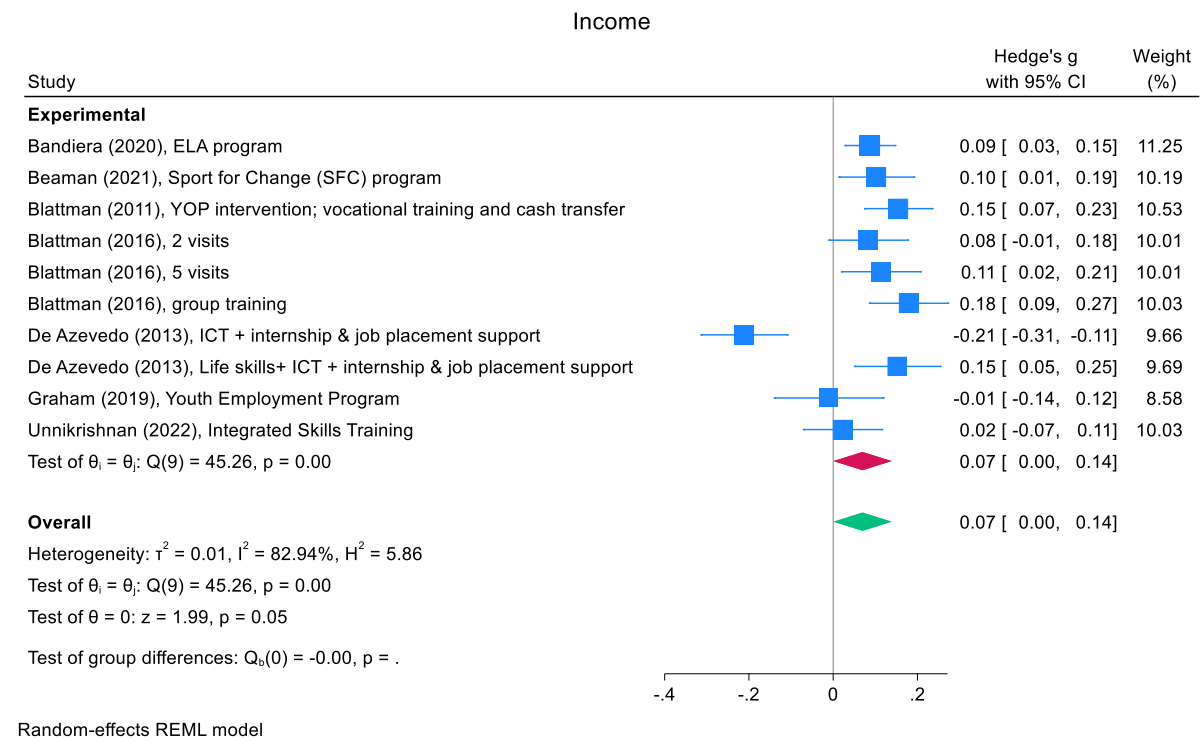
Notes: CI = confidence interval; p = prob value. I^2 , H^2 , τ^2 , and Q are all measures of heterogeneity. Test of $\Theta=0$ is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

Figure A1.2: Effect of life skills interventions on youth employment by intervention design



Notes: CI = confidence interval; p = prob value. I^2 , H^2 , τ^2 , and Q are all measures of heterogeneity. Test of $\Theta=0$ is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

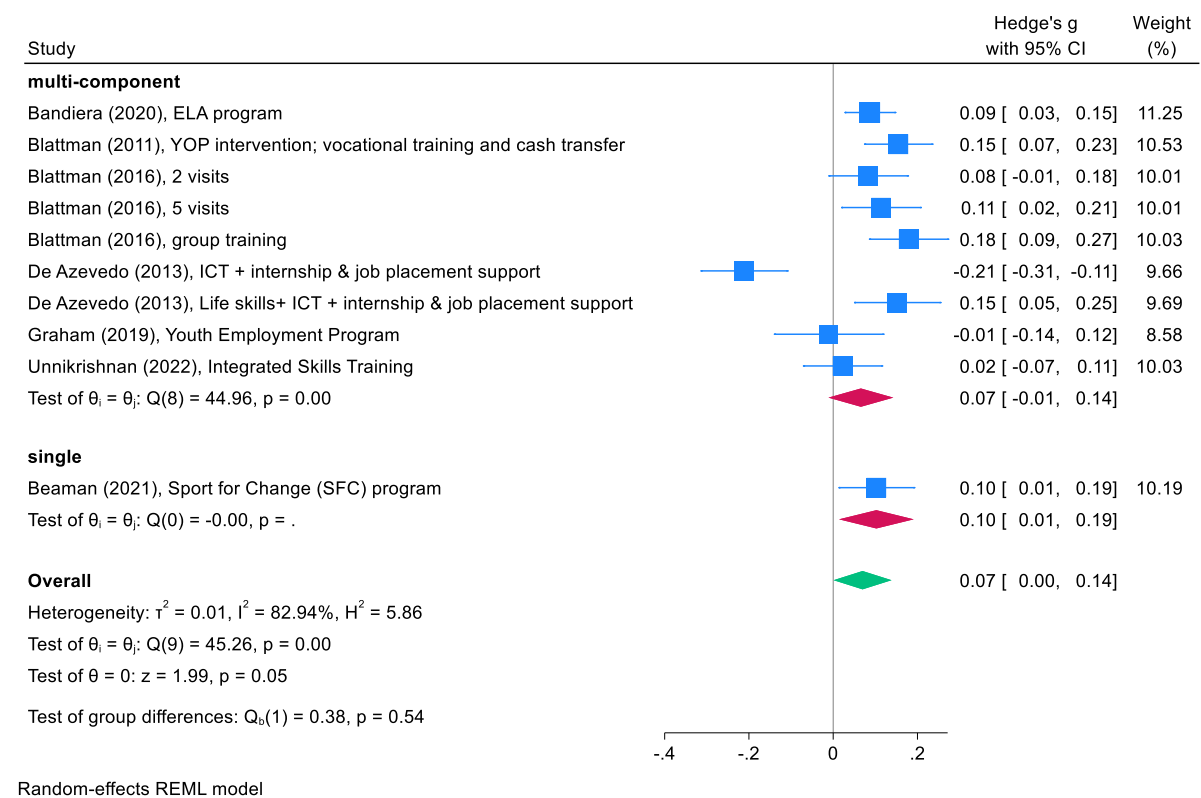
Figure A1.3: Effect of life skills interventions on youth earnings



Source: Authors' analysis

Notes: CI = confidence interval; p = prob value. I^2 , H^2 , τ^2 , and Q are all measures of heterogeneity. Test of $\Theta=0$ is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

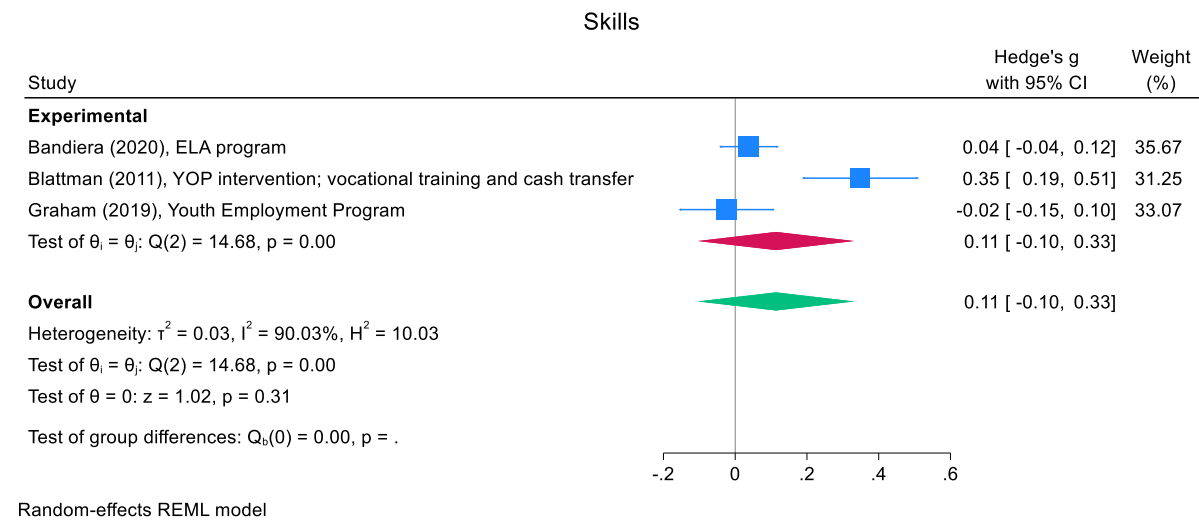
Figure A1.4: Effect of life skills interventions on youth earnings by intervention design



Source: Authors' analysis

Notes: CI = confidence interval; p = prob value. I^2 , H^2 , τ^2 , and Q are all measures of heterogeneity. Test of $\theta=0$ is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

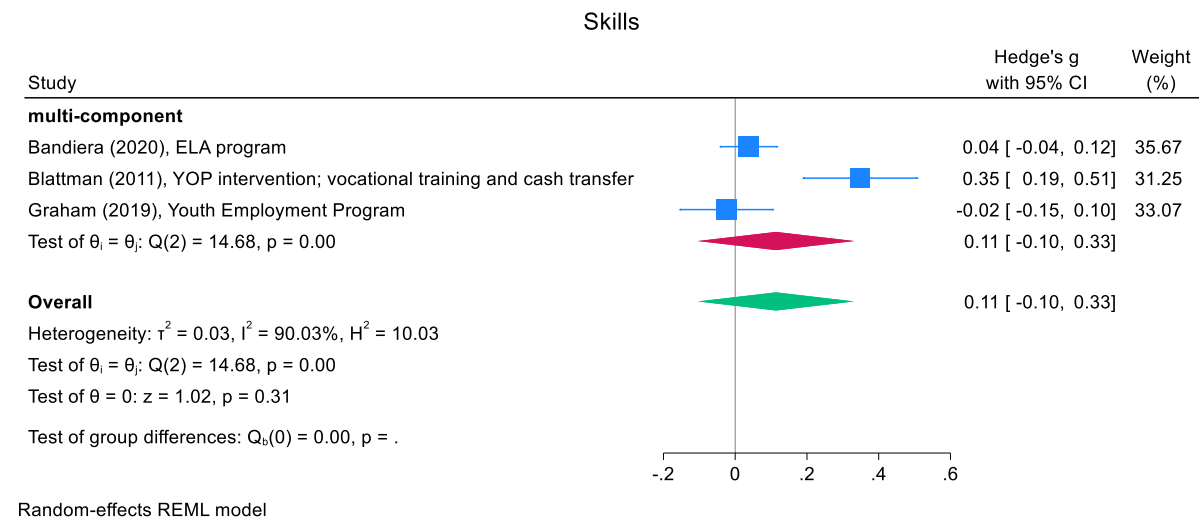
Figure A1.5: Effect of life skills interventions on skills



Source: Authors' analysis

Notes: CI = confidence interval; p = prob value. I^2 , H^2 , τ^2 , and Q are all measures of heterogeneity. Test of $\Theta=0$ is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

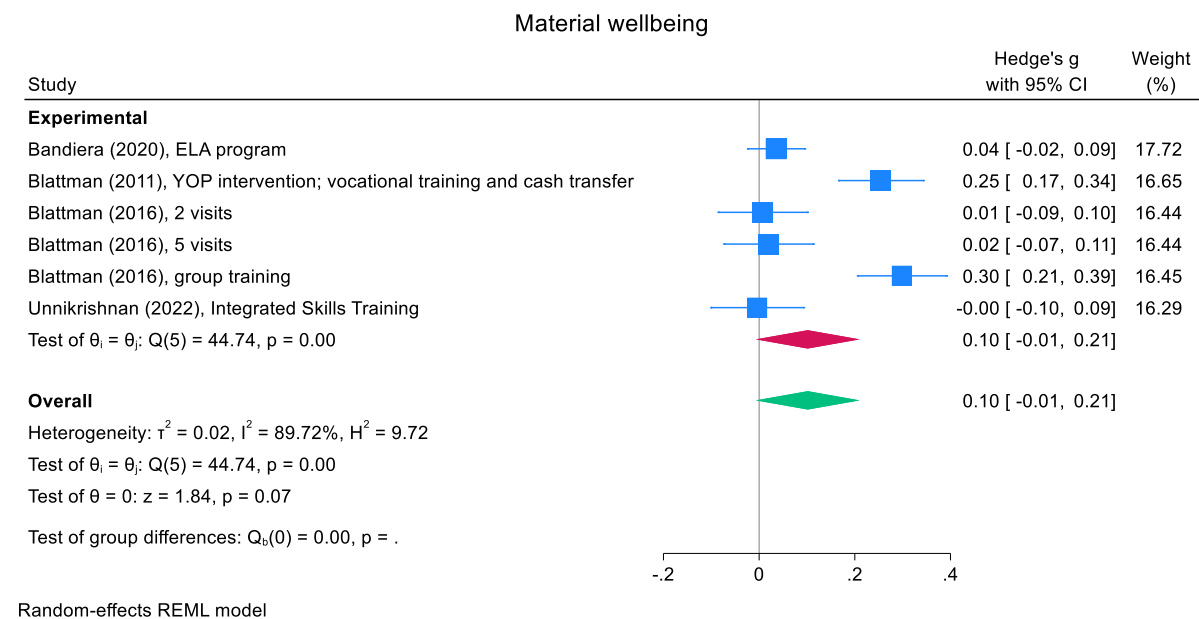
Figure A1.6: Effect of life skills interventions on skills by intervention design



Source: Authors' analysis

Notes: CI = confidence interval; p = prob value. I^2 , H^2 , τ^2 , and Q are all measures of heterogeneity. Test of $\Theta=0$ is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

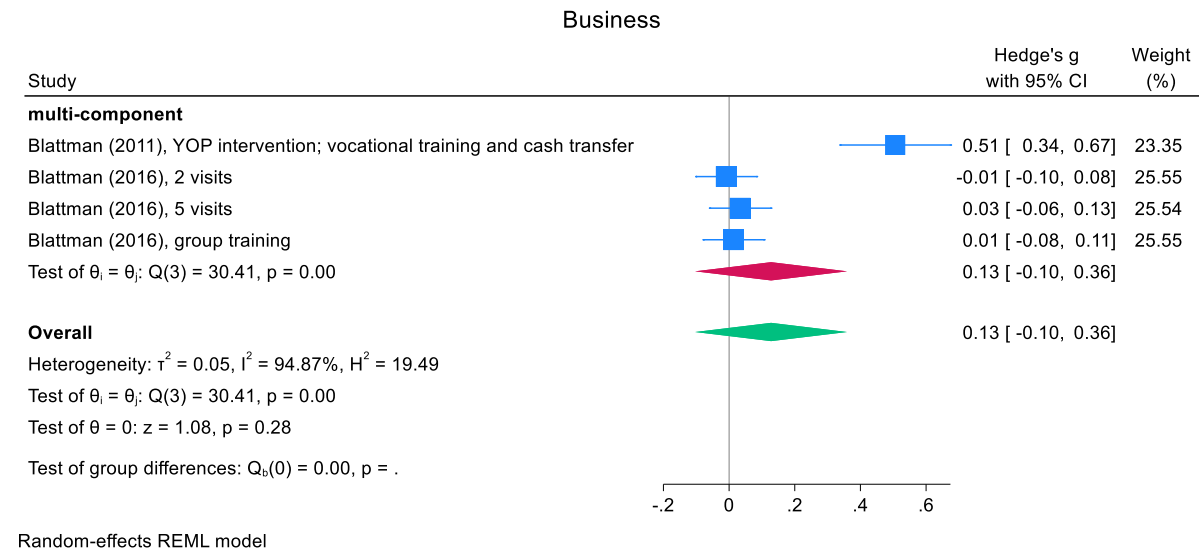
Figure A1.7: Effect of life skills interventions on material welfare



Source: Authors' analysis

Notes: CI = confidence interval; p = prob value. I^2 , H^2 , τ^2 , and Q are all measures of heterogeneity. Test of $\Theta=0$ is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

Figure A1.8: Effect of life skills interventions on business outcomes by intervention design



Source: Authors' analysis

Notes: CI = confidence interval; p = prob value. I^2 , H^2 , τ^2 , and Q are all measures of heterogeneity. Test of $\Theta=0$ is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of figure in the text.

Table A.1: Effects of life skills training interventions

		Sex		Study design		Intervention design		Total
		Female only	Mixed	RCT	Non-RCT	Single	Multi	
Employment	G	0.05	0.18	0.1	0.42	0.03	0.17	0.14
	95% CI	0.01-0.09	0.04-0.32	-0.02-0.21	0.12-0.72	0.00-0.07	0.00-0.35	0.02-0.26
	No. of effects	3	12	13	2	6	10	15
	I ²	0.02	94.8	94.7	80.1	0.02	96.2	95.3
Wages and earnings	G	0.05	0.14	0.07	0.36	0.02	0.1	0.09
	95% CI	-0.01-0.10	0.04-0.24	0.03-0.11	-0.21-0.91	-0.02-0.07	0.04-0.17	0.04-0.14
	No. of effects	4	8	10	2	3	10	12
	I ²	55.6	70.8	43.8	94.1	18.3	75.2	70.8
Skills	G	0.08	0.15	0.08	0.72	0.04	0.23	0.12
	95% CI	0.03-0.13	0.00-0.30	0.13	0.44-0.1.00	0.00-0.07	.04-0.42	0.02-0.22
	No. of effects	2	7	8	1	5	5	9
	I ²	24.7	90.5	63.9	N.a.	0.0	94.0	90.5
Business performance	G	..	0.23	0.23	..	0.01	0.28	0.14
	95% CI	..	-0.19-0.65	-0.19-0.65	..	-0.04-0.07	-0.21-0.76	0.39
	No. of effects	..	3	3	..	2	2	4
	I ²	..	98.6	98.6	..	0.01	97.2	89.0
Material welfare	G	0.07	0.13	0.08	..	0.09	0.07	0.08
	95% CI	0.04-0.10	0.02-0.24	.05-0.11	..	0.03-0.15	0.04-0.11	.05-.0.11
	No. of effects	3	2	5	..	1	4	5
	I ²	0.000	31.000	0.04	..	N.a.	0	0.0

Source: Authors' calculations. g is the effect size; CI is confidence interval; and I² a measure of heterogeneity.

Annex 2 Calculation of meaningful effect sizes

The SMD can be converted to an odds ratio (OR) using the formula $lnOR = \frac{g \pi}{\sqrt{3}}$ (Borenstein et al., 2009). Using the OR a 2x2 table can be created, for which we need an assumption of the share of the control group gaining employment. We assume 50%, which is a commonly observed value in the dataset. We also need to assume the sample size for treatment and control, though the result is not sensitive to that assumption. We assume 100 in each group. With $g=0.14$, $OR=1.29$ this gives the 2x2 table:

Table A2.1: 2x2 table to calculate percentage change in employment

	Employed	Unemployed	Total
Treatment	56.8	43.2	100
Control	50	50	100
<hr/>			
Absolute % change		6.8	
% change (cf comparison rate)		13.5%	
No. needed to treat		15	

The number needed to treat is calculated as the number treated divided by the absolute difference in employment between treatment and control groups.

Annex 3 Critical appraisal

Critical appraisal assesses the confidence we can have in study findings, being classified as high, medium or low. The results of the critical appraisal inform the overall confidence we have in the findings reported in the technical report.

Table A3.1: Critical appraisal of included studies

Study	Confidence	Study Design
Abebe (2018)	High	Impact
Abel (2019)	Medium	Impact
Alcid (2014)	Low	Impact
Bandiera (2012)	Low	Impact
Bandiera (2020)	Low	Impact
Beaman (2021)	Low	Impact
Bier et al. (2019)	Low	Impact
Blattman (2016)	Medium	Impact
De Azevedo (2013)	High	Impact
Graham (2019)	Low	Impact
Honorati (2015)	Low	Impact
James (2018)	Low	Impact
Jamison (2014)	Low	Impact
Wheeler (2022)	Medium	Impact
Adablah (2018)	Medium	Process
Duggleby (2015)	Low	Process
International Youth Foundation (2010)	Medium	Process
Management Systems International (2016)	Medium	Process
Nycanda (2008)	Low	Process
Simmons (2015)	Medium	Process
Statman and Abera (2020)	Medium	Process

Confidence rating for meta-analysis effect sizes decision rule

The overall assessment of confidence in an effect size reported in the technical report is derived from the following table

Table A3.2: Threshold values for critical appraisal

		No. of included studies for effect estimate		
		5 or less	6-9	10 or more
Study assessment	Mainly Low	Low	Low	Low
	Medium	Low	Medium	Medium
	Mainly High	Low	Medium	High

Mainly low = At least 60% of studies are rated low

Mainly high = At least 60% of studies are rated high

Medium = any estimate not covered by the above two categories

Adjustment for heterogeneity: reduce by one level if $I^2 > 80\%$

Application to this report

Reported effect sizes are from just 15 effects from fourteen studies, though effects other than employment are from a smaller number of studies. Only two impact evaluation studies are rated as “high confidence” while only three are rated “medium”. The remaining nine are rated low, so study assessment is “mainly low”. Hence there is low confidence in our effect estimate because of the low rating of the included studies (and also the small number of studies for material welfare and business outcomes).

Confidence in qualitative findings is from seven process evaluation studies all rates as “medium” or “low” so overall confidence in medium.