Careers advice or guidance

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

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.

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 a review of relevant studies from 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

CAPS	Career Advisory and Placement Service
CI	Confidence Interval
EGM	Evidence and Gap Map
ESSA	Employment Services of South Africa
ILO	International Labour Office
K-YES	Kenya Youth Employment and Skills Programme
RCT	Randomized Controlled Trial
REML	Random effects multilevel model
TVET	Technical and vocational education and training
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
YEEP	Youth Employment and Empowerment Programme
YES-Hubs	Youth Economic Services Centres

Plain language summary

What is this report about?	This technical report looks at the evidence in English of careers advice interventions on skills, employment and earnings for young people in sub-Saharan Africa.
What is careers advice?	Careers advice, which is also called career counselling or career guidance, provides information and advice to young people on career options and may provide connections to potential employers.
In what context are careers advice programmes implemented?	The advice might be a standalone activity – such as workshops offered by the South African Department of Labour on job search strategies – or as part of a larger project which provides other services such as training or mentoring. For example, the Youth Employment and Skills Programme in Kenya (K-YES) is offered as a three-day course providing life skills training and career counselling, in preparation for selecting a vocational training course.
What are the main design choices?	Design choices concern the location of the career service, and associated question of the target group. Consideration needs to be given to appropriate training for counsellors, and ensuring they are kept up to date of labour market demand, and how to institutionalize the careers service.
How is career guidance expected to work?	Career guidance can increase employment through steer young people onto realistic careers pathways and so affecting their education and training choices to increase the probability of gainful employment Careers counsellors may discourage leaving education early, provide support to job search, and connections to employers.
What sort of activities do career guidance programmes support?	Career guidance activities include providing the guidance and relevant information itself, as well as making connections to potential employers and training centres.
Implementation issues	Implementation issues discussed include: outreach especially to those farthest from the labour market, which includes locating events such as job fairs in the capital which excludes most eligible youth; the need to ensure that advice reflects the realities of the labour market and that youth have realistic expectations; provide career information to people the young people

	may turn to for advice, such as vocational trainers; the need to institutionalize careers advice in universities.
The effects of careers advice	The average effect size from the three randomized controlled trials shows a small, insignificant effect on skills, employment and earnings. Our conclusion is that the interventions have little or no effect.
How strong is the evidence base?	The evidence of impact in this technical report is based on four impact evaluations of three interventions. Evidence on implementation is from seven process evaluations of youth employment programmes. The impact evaluations are rated low to high confidence in study findings, and the process evaluations low and medium confidence. Overall, we have low confidence in the findings on account of the small number of studies.
Cost analysis	There is no evidence on the cost-effectiveness of career guidance.
Implications for research	There is a need for additional rigorous impact evaluations. Encouragement and factorial designs should be considered.
Implications for policy and practice	If career guidance is to be supported, then policymakers need to support research for cost-effective means of providing such guidance. Rigorous evaluations of different design approaches are needed to better inform policy and practice.

What are careers advice interventions?

Careers advice, which is also called career counselling or career guidance, fulfils the following functions:

- **Providing information about the job opportunities available**, the qualifications required for different career paths, and where to obtain those qualifications.
- **Advising children and young people on suitable career paths** given their interests, aptitude and likely qualifications.
- **Providing connections to potential education and training opportunities and with employers**.

How are career guidance programmes expected to work?

Career guidance may affect youth employment through the following channels:

- Providing children and young people with information on potential careers and the qualifications required **affects their education and training choices** to increase the probability of gainful employment and entering a career pathway, which will lead to higher earnings over time.
- Career counsellors can help **steer young people onto realistic career pathways** which lead to better outcomes in the long run, e.g. discouraging leaving education early even though in the short run it may be financially more rewarding, and being realistic about the very low chances of success in 'celebrity careers' such as in sports, music or as an influencer.
- Career guidance provides **support to job search**, including facilitating applications, arranging interviews or providing access to employers through job fairs or network events. Career counsellors may have access to labour market information systems to better inform the advice they give.

What are examples of careers advice interventions in sub-Saharan Africa?

The list of the different approaches to careers advice in the studies included in this technical report (see Table 1) illustrates a range of design choices:

- Careers advise may be offered through a permanent careers office which may be hosted by local government or in a school or a university, a mobile career service, an online portal, or through one-off events such as workshops for careers advice, or career days or job fairs at which youth meet potential employees.
- Careers advice may also be offered less formally as part of a mentoring relationship of apprentices, interns or other trainees in the workplace.
- Careers advice is often offered as part of a broader package of support, though there may also be one-off activities such as workshop or job fair.
- Interventions may also support infrastructure and equipment for career centres, training of staff, and providing support material such as manuals.

Table 1: Examples of careers advice interventions

The UNDP *Youth Employment and Empowerment Programme* in Sierra Leone included the creation of a Career Advisory and Placement Service (CAPS) in universities. CAPS were established in five universities across the country, which also did outreach in secondary schools. They provided careers counselling as well as advice on applications and interview technique (Adablah and Bockarie, 2018).
The USAID-supported *Youth Map Uganda Internship Program* included professional development support services with mentoring on career development (Duggleby et al., 2015).
The USAID-supported *Youth Employment and Skills Programme* in Kenya (K-YES) included career counselling, mentoring and job placement for youth. Specifically, life skills and career counselling were offered as a three-day course offered to K-YES vocational trainees before students select their vocational courses (Management Systems International, 2017).
The evaluation of the ILO Strategy to increase state capacities to develop youth employment policies and programmes covered career counselling in Liberia (Henry and Cerritelli, 2009).
The *Potential of Youth Project* in Ethiopia, financed by USAID, supported the creation of Youth Economic Services Centres (YES-Hubs) in local government offices which provided careers guidance. The project also created a digital tool called Mobile for Career Development to assist job search (Statman and Abera, 2020).

The Department of Labour in South Africa offered a 90-minute workshop on job search. In the workshop career counsellors discussed job search strategies, CV creation, interview techniques, and access to information and resources for job search (Abel et al., 2019).
A programme in Rwanda provided coaching on networking and communicating with employers and network events for employers, students and programme staff. This was part of a university curriculum which also focused on soft skills (Bier et al., 2019).
Job fairs were held at Addis Ababa University in Ethiopia (Abebe et al. 2018 and 2021).
An ILO project supported a Career Counselling Manual in Tanzania which was also subsequently used in Ghana (Nycander, 2008).

What has been the implementation experience of careers advice interventions?

In general, process evaluations offer little evaluative evidence regarding careers advice, as they mostly report only that such services were offered. But there were exceptions. Specific interventions in sub-Saharan Africa, with available evidence, are

- The Youth Map internship programme in Uganda placed 100 young people in internships with 37 employers. Participants developed work and career development plans during the training phase prior to taking up internships. However, **the internships offered often did not match their desired sector, because of limited internship opportunities being available**. The supervisor for the internship was meant to act as a mentor, who would monitor and advise on implementation of these plans. There were differing views on how useful mentors were in assisting career planning. It was hoped that interns would get follow up positions with their employers, but there was a ban on new hiring in government at the time, so this was not possible for those interns placed in government positions. A career fair and other networking events were held for interns to network and find possible job opportunities after the internship. These were mostly held in Kampala, so interns from elsewhere felt neglected (Duggleby et al. 2015, rated low confidence).

- The soft skills component of the Building the Potential of Youth Project in Ethiopia, called Positive Youth Development, was targeted at underemployed youth (aged 18 – 35) with primary or some secondary education. Youth developed Personal Development Plans and were given advice on looking for employment. Careers advice was provided through (i) part of a three days soft skills training course; (ii) at youth employability service (YES) centres (YES-Hubs), which were set up within existing local government youth centre buildings, many of which had been non-operational prior to the project; and (iii) post-training coaching (or mentoring). The project also provided online support through creation of a "Mobile for Career Development" tool, which included information and knowledge links, training manuals, practical guides, local market information and labour market data, employment listings, and an events calendar**. Youth reported that the**

university and Technical and Vocational Education and Training (TVET) staff delivered academic-style lectures rather than providing more applied coaching which would have been preferable (Statman et al., 2020, rated medium confidence).

- The study of career fairs in Ethiopia reports that **of the individuals successfully contacted, about two-thirds agreed to participate, most of whom (63.5%) attended the fair on the specified day for which they had been scheduled to meet with employers with whom they had been matched. A slightly higher participation rate was achieved for invited firms – of the 248 firms invited, 170 (69%) attended at least one job fair.** These findings suggest that over-recruitment can be used to avoid empty slots in sessions (Abebe et al., 2018 rated high confidence).

- The Youth Employment and Empowerment Programme (YEEP) supported the establishment of five Career Advisory and Placement Service (CAPS) centres in universities (with outreach to secondary schools) in Sierra Leone. CAPS provided students with (i) labour market and career development information, (ii) job search skills, (iii) job placement opportunities, (iv) career workshops and (v) job fairs. The career guidance counselling equipped youth with job search skills and taught them how to prepare winning applications and CVs and how to attend job interviews, as well as how to maintain themselves and behave in a work setting. **Despite the perceived success and popularity of CAPS centres – though this varied across sites – their work was not mainstreamed into the University's curriculum and therefore they did not have adequate support of their host institutions, and so they were dependent on donor support** (Adablah and Bockarie, 2018, rated medium confidence; Simmons et al., 2015, rated low confidence).

Under the USAID-supported Youth Employment and Skills Programme in Kenya (K-YES life skills and career counselling were offered as a three-day course to K-YES vocational trainees to help inform the selection of their vocational courses**. The course encouraged participants to follow the career path that appealed to them and not do what their parents wanted, and included a gender component so girls would consider traditionally male occupations**. Vocational Training Centre staff were also trained to give career guidance. The programme

includes one-day workshops by people already employed which were deemed useful as showing what work was like (Management Systems International, 2017, rated medium confidence).

The effects of careers advice interventions

There are three impact evaluations of career guidance included in the analysis of effects, and summarised using meta-analysis. Two of the studies are of single component career guidance interventions, both of which find no effects on employment. The third study is of a multicomponent intervention including career guidance finds a significant, positive effect on employment.

The findings from the studies can be combined in a meta-analysis. 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 average effect of the RCTs on employment is just 0.04. There is a similarly small-sized and insignificant effect on skills, meaning in this case job search skills.** See Annex 1 for a complete presentation of the meta-analysis.

Study-level summaries

The evidence of effectiveness comes from four papers on the effectiveness of careers advice from three studies (see Table 2). These three studies are:

- Two papers analysing the findings from an RCT of two job fairs held at Addis Ababa University in October 2014 and February 2015, Ethiopia, intended for youth aged 18- 30, who had completed at least high school and were available for work, but were not permanently working or enrolled in full time education (Abebe et al., 2018 and 2021, both rated high confidence; these two papers analyse the same data for the same intervention but with an additional outcome in the later paper). Just over 1,000 jobseekers and nearly 250 firms were invited. Both the youth invited and the firms were invited through random assignment. They were free to visit whichever employers they chose, though job seekers were recommended certain employers to who they were

matched and vice versa using a matching algorithm. Whilst the job fair resulted in many interviews (aided by the matching algorithm reducing congestion at the fairs), only few job offers were made – only one for every 12 firms attending the fair made on offer. The main finding was that youth had unrealistic expectations about earnings, and employers over-estimated the supply of skills available in the market. However, six months after the job fair, when fair participants (both employers and jobseekers) had revised their expectations, youth who attended the fair were more likely to be in permanent employment than those in the comparison group – the effect is largest for the least educated participants of whom 12% were in permanent employment compared to 6% in the control group.

- The study by 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 assigned to receive the standard 90-minute module ('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.

Table 2: Studies of careers advice interventions in sub-Saharan Africa

Study	Intervention	Findings
Abebe (2018 and 2021)	Job fair in Addis Ababa Ethiopia	No effects on job search or employment. After the fair both job seekers (26%) and firms (12%) increased job search efforts through formal channels. After six months no effect on employment, but least educated 6% more likely to have permanent job than control (no effect more educated),
Abel (2019)	1/ Job search workshop 2/ Workshop + job search planning module South Africa	Job search + planning participants versus control: Time spent on job search: no effect Applications per month: 18% higher Employer response: 30% higher Employment: 26% No effects for those in job search workshop alone
Bier et al. (2019)	Career guidance included as part of university curriculum including coaching on networking and communicating with employers Rwanda	Participants versus control: Employment on graduation: 60% vs. 30% Employment at 12 months: 88% vs 67% Earnings: RWF 403 (US$448) vs. 191k (US$212)

- The fourth paper looked at the effects of coaching on networking and communicating with employers that was provided to university students in Rwanda, as well as holding networking events for employers, students and programme staff (Bier et al., 2019, rated low confidence). This career support took place in the context of a university curriculum which included skills valued by employers, rather than the usual academically-oriented curriculum. 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 (who were identified from non-participants using propensity score matching). The effect sizes for skills and employment are very large (0.66 and 0.60, respectively – equivalent to a 50% relative increase in employment, see Annex 2). The comparison group eventually caught up in terms of employment rates, but intervention group students continued to earn twice as much and work one third more hours.

The main message is that the two randomized control trails (RCTs) by Abede et al. (2019 and 2021) and Abel et al. (2019) show no significant average effect for any set of outcomes, whereas the non-experimental study (Bier et al, 2019), which is rated as low confidence in study findings, does find an effect.

It is common in reviews for non-experimental studies to report larger effect sizes than RCTs. This is usually because in non-experimental studies the comparison group is not fully comparable as there might be some unobserved heterogeneity left despite statistical matching efforts. An additional explanation is that the RCTs are of single component interventions which have a smaller effect than multi-component interventions, such as studied in the non-experimental study.

We have low confidence in overall findings because of the small number of included studies.

Cost analysis

None of the included studies for this report give details of the costs of career guidance. But the activities which require payment can be listed to inform a costing.

Costs clearly vary depending on the intervention. The most expensive activity would be the construction of new career centres, but in practice these centres are located in existing institutions, so remodelling and possibly rental will be the relevant costs.

Guidance counsellors need training, which needs to be refreshed or counsellors otherwise kept informed of labour market developments.

Events such as careers days require a venue and fees for the event. Employers are not paid to attend such events, and may even be charged a fee if the intervention can offer an attractive pool of potential employees.

Implications of study findings

Careers advice and guidance can take various forms. It has been offered through schools and colleges as wells as at job fairs which match young people to potential employers. The evidence base is very thin, but it appears that career guidance programmes generally have only a small effect, though a larger effect may be achieved by offering such guidance in combination with other interventions. Sustainability of these interventions is weak.

Implications for policy and practice

The overall findings from the summary of the studies of effectiveness are that **there are only small or no effects of career guidance on skills, employment and earnings**. That may be because the observed effects are all short-run effects. There may be larger effects in the medium to long-run.

There is only weak evidence that soft skills and career guidance together are more effective, but the study on which this finding is based (Bier et al., 2019) – which is rated as low confidence – cannot say whether this is an effect from one or the other of these or an additive or synergistic effect.

Based on this evidence, **funders should support further high-quality studies of the effectiveness of careers advice in sub-Saharan Africa**. As services are already being offered, they are very amenable to an encouragement design - in which young people are randomized to an encouragement to use the service - which is a relatively low-cost approach.

Since career information and advice will continue to be provided, the evaluations provide some insights for design and implementation:

- Events such as job fairs will not be attended by all those who are invited so over-recruitment is suggested (e.g. if the target is 1,000 attendees then invite 1,500) (see Abebe et al, 2018).

- At job fairs a matching algorithm can be used to match job seekers and employers to improve the efficiency of interactions at the fair (Abebe et al, 2018).
- Try to ensure alignment between advice and the skills demanded in the labour market, which means that career counsellors need to be kept abreast of labour market conditions.
- Provide skills in career guidance to those people that young people may turn to for advice, such as vocational trainers.
- Job fairs and other networking events tend to be held in the capital, which tends to exclude the majority of the country's youth. Interventions should find means of networking and hold events at regional and district level (though the feasibility and effectiveness of such approaches is not proven) (Abebe et al., 2018, and Duggleby et al., 2015).
- Lecturers and trainers may use too academic a style in addressing issues such as soft skills and job search (Statman et al., 2020). Youth prefer more practically-oriented advice, which is often provided by people already in work, including on-the-job supervision. However, the feedback on the usefulness of mentors is mixed.
- If mentoring including career guidance is intended to be given as part of on-the-job training for interns then the requirements should be explicit and supported by the project (Duggleby et al., 2015).
- Careers advice services established at universities should be institutionalized during the project so they do not close when the project ends (based on Adablah and Bockarie, 2018).

Implications for research

The evidence base in this area is small, although it is an area readily amenable to randomization, especially using encouragement designs to have youth attend career workshops or job fairs. It would be useful to have studies with factorial designs, that is studies which have three treatments arms: one with life skills alone, one with career

guidance alone, and one which has both. This design would allow separating the effect of life skills training from career guidance, and examine any synergies between the two.

There is **also a lack of long-run studies**. Careers advice may cause youth to seek additional training or education and therefore have no effect on employment or income in the short run. Long-run studies after five years or more (and very long-run after 20-30 years) would address this issue. In the meantime, short-run studies could collect more detailed information on career choices and actions taken consequent on those choices.

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Annex 1 Results of meta-analysis

Figures A1.1-A1.3 show the forest plots for the effects of the interventions on skills, employment and earnings. The horizontal lines in the forest plot are the 95% confidence interval for each study, with the mid-point being the average effect size. The vertical line is the line of insignificance. If the horizontal line for a study crosses the vertical line then that study did not find a statistically significant effect. By pooling the samples across studies, meta-analysis increases statistical power, and so may detect a significant effect when the individual studies do not do so. For all three outcomes a positive effect is found in the non-experimental study, but the combined effect of the findings from the RCTs is small and statistically insignificant.

This difference in effects between experimental and non-experimental is most likely at least partly attributable to selection bias that the propensity score matching technique used in the non-experimental study of Bier et al. (2019) was unable to eliminate.

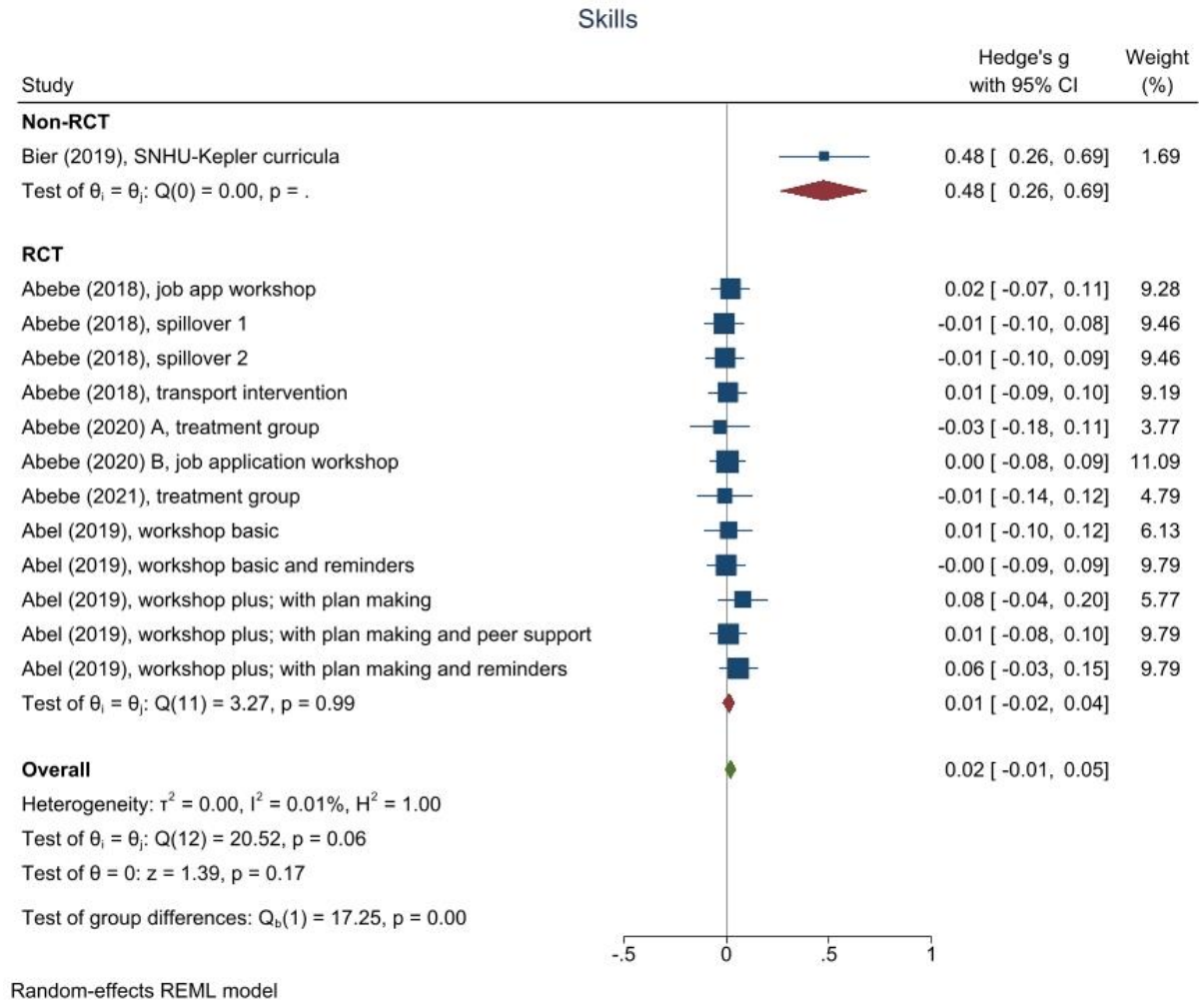
In the case of the studies of job fairs and the job search workshop - Abebe (2018 and 2021) and Abel (2019) - respectively - the soft skills refer to job search activities such as time spent in search and the number of applications made. Both studies find only a small effect on these outcomes. Specifically, the overall average effect for these two studies – which are both RCTs – of Hedge's g=0.02[1] (which is a very small effect) and statistically insignificant (Figure 1).

In contrast, the study of the networking (Bier et al., 2019) has a statistically significant, large effect (g=0.48), on skills, which are cognitive skills in this study.

The overall effect averaging across all studies is g=0.02 but statistically insignificant.

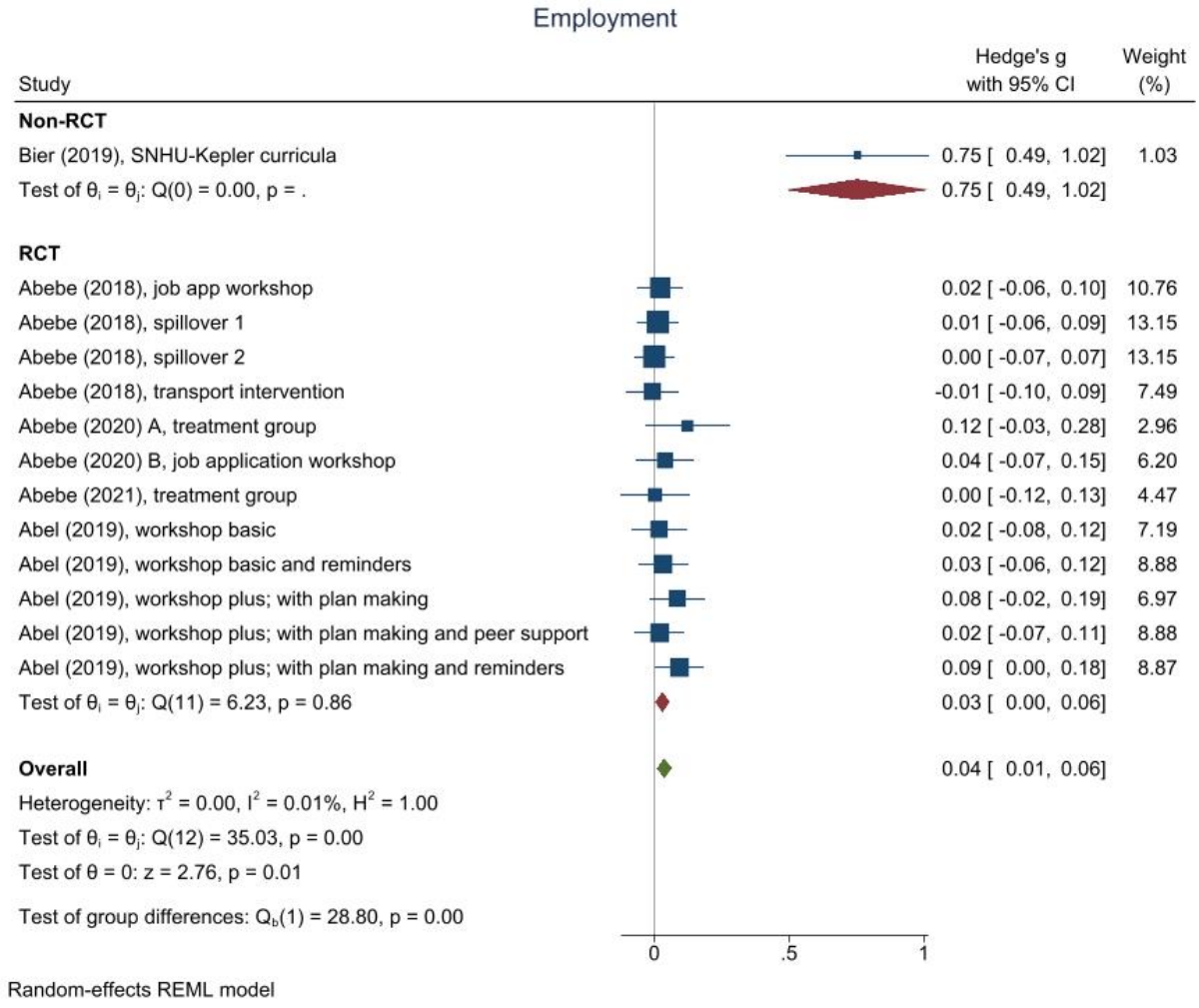
[1] Hedge's g is calculated by applying a sample size adjustment to the standardised mean difference (d), which corrects for the bias in d in small samples.

Figure A1.1: Effect of careers advice on skills outcomes



Notes: CI = confidence interval; RCT = randomized controlled trial; p = prob value. I^2, H^2 $\tau^{2,}$ and Q are all measures of heterogeneity. Test of Θ=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 careers advice on employment outcomes



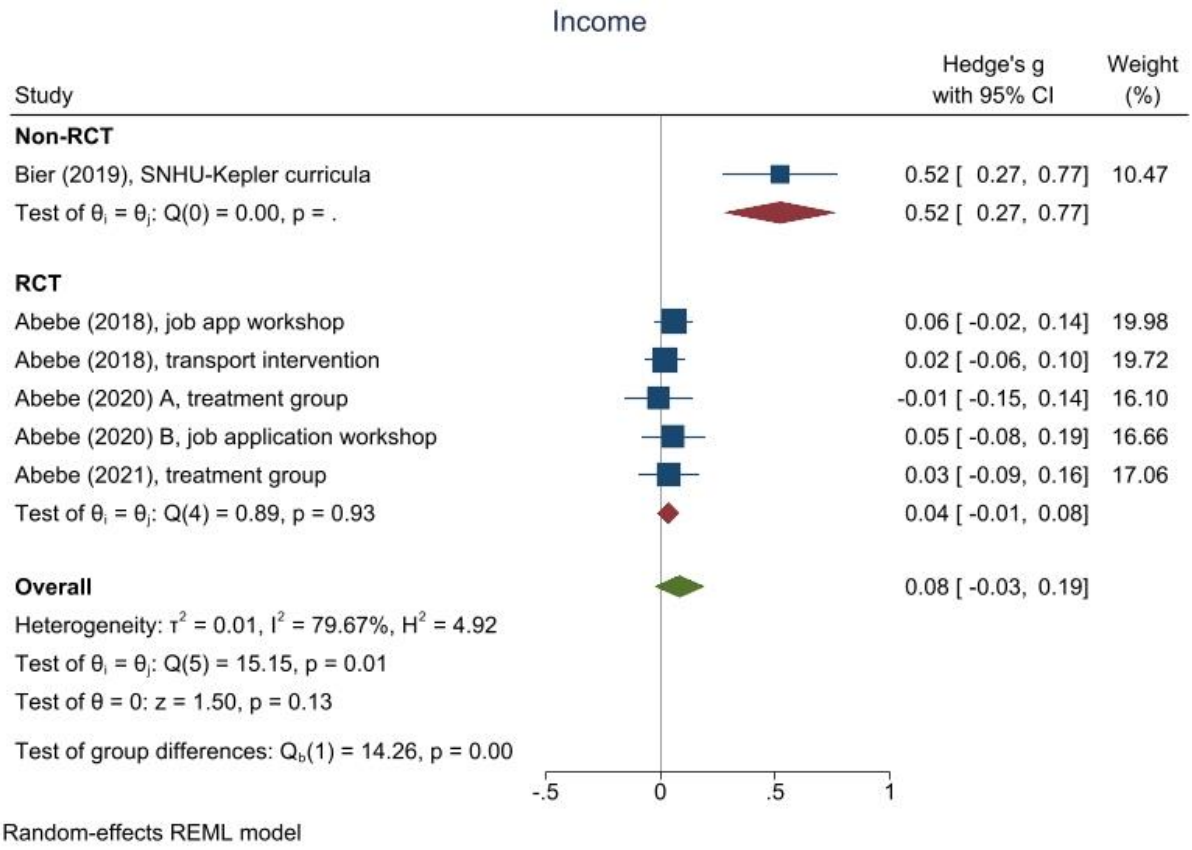
Notes: CI = confidence interval; RCT = randomized controlled trial; p = prob value. I^2, H^2 $\tau^{2,}$ and Q are all measures of heterogeneity. Test of Θ=0 is a test that none of the effect sizes are significantly different from 0, and z the significance test for that statistic. See explanation of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

A similar picture is seen for employment (Figure A1.2), with small, insignificant, effects from the two RCTs (Abebe and Adel). There is a larger effect from the study of Bier et al. (2019). But the overall effect across all studies (g=0.04) is insignificant.

With respect to earnings (Figure A1.3), the average effects in the two RCTs are very small effects, both statistically insignificant. Again, there is a large positive effect from Bier et al. (2019). These effects are all measured at the end of intervention, so long-run effects from better career paths are not captured.

None of the studies examine long-run effects.

Figure A1.3: Effect of careers advice on earnings outcomes



Notes: CI = confidence interval; RCT = randomized controlled trial; p = prob value. I^2, H^2 $\tau^{2,}$ and Q are all measures of heterogeneity. Test of Θ=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.

Annex 2 Calculation of meaningful effect sizes

The standardized mean difference (SMD) can be converted to an odds ratio (OR) using the formula $lnOR = \frac{g\,\pi}{\sqrt{3}}$ (Borenstein et al., 2009). Using the odds ratio, a 2x2 table can be created, for which we need an assumption of the share of the control group gaining employment. We assume 50%. 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 Hedge's g=0.04 we get OR=1.08. This gives the 2x2 table shown in Table A2.1.

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

	Employed	Unemployed	Total
Treatment	51.8	48.2	100
Control	50	50	100
Absolute % change		1.8	
% change (compared to comparison group rate)		3.6%	
Number need to treat		55	

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.

Critical appraisal of included studies

Table A3.1: Critical appraisal for included studies

	Confidence	Study Design
Abebe (2018)	High	Impact
Abebe (2021)	High	Impact
Abel (2019)	Medium	Impact
Bier (2019)	Low	Impact
Duggleby (2015)	Low	Process
Statman (2020)	Medium	Process
Adablah (2018)	Medium	Process
Simmons (2015)	Low	Process
Management Systems International (2017)	Medium	Process

Table A3.2: Threshold values for critical appraisal

		No. of included studies for effect estimate		
		5 or less	6-9	10 or more
Study-level assessments of confidence	Mainly Low	Low	Low	Low
	Medium	Low	Medium	Medum
	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 four studies of three interventions so all are low confidence.

Confidence in qualitative findings (process evaluations) is from five studies all rates as medium or low so overall confidence in low