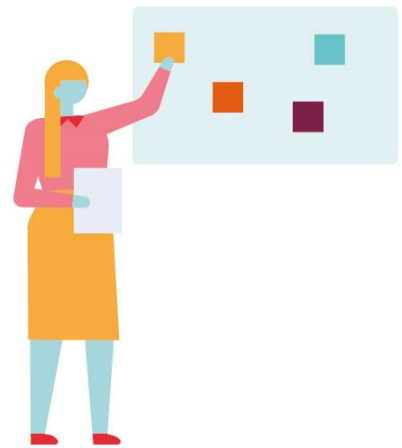# youth futures
FOUNDATION

Youth Employment Toolkit

Technical guide

June 2023

Version 1.1

- Youth Futures Foundation is the What Works Centre for youth employment. We aim to narrow employment gaps for young people facing the greatest challenges by identifying what works and why and investing in evidence generation to improve policy and practice.

- For more info about this guide or about the Youth Employment Toolkit, please send an email to:
    - toolkit@youthfuturesfoundation.org

Contents

Introduction to the Toolkit

Aims

The Youth Employment Toolkit is a free online resource that presents summaries of evidence on interventions that are used to improve employment outcomes for young people, with a particular focus on those who are at risk of marginalisation in relation to the labour market. The international literature on youth employment is extensive, but its focus and quality are highly variable. Relatively few studies use randomised or comparison group design to identify the effectiveness of interventions, and the 2022 Youth Employment Evidence and Gap Map[1] identified only 22 systematic reviews in the global evidence base.

The Youth Employment Toolkit aims to make findings from the best and most relevant research easily accessible for stakeholders, accompanied by an assessment of the strengths and limitations of the available findings. We hope that it will become a key destination for anyone seeking evidence-based guidance on policy and practice to improve youth employment.

The first iteration of the Toolkit contains information about seven different kinds of intervention to improve youth employment. The absence of an intervention does *not* indicate that it is not effective; only that it has not yet been included in the Toolkit. We plan to update the Toolkit periodically to include additional interventions, and to reflect developments in the evidence base for interventions that are already in the Toolkit.

The development of the Toolkit allowed us to identify some gaps in the available evidence. Some potentially effective interventions have not been evaluated, or have not been evaluated to a level that allows us to include information about their effectiveness with sufficient confidence. Where evaluations are available, they do not always provide information about everything that might be of interest to Toolkit users.

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[1] https://youthfuturesfoundation.org/wp-content/uploads/2022/03/Youth-Futures-Foundation-EGM-2022.html

Focus on young people at risk of marginalisation

Youth Futures' mission is to improve employment outcomes for young people who are at risk of marginalisation in relation to the labour market, or who face additional barriers to entering good quality jobs.

Most of the studies included in the evidence reviews (see below) for the Toolkit evaluated interventions for young people with a history or an identified risk of unemployment. For example, to qualify for a programme they might have to be out of work at the point of entry, or to have been unemployed for a certain period prior to entry. Young people who are unemployed, economically inactive, or not in education or training frequently experience other aspects of economic or social disadvantage[2]. Therefore, the overall findings of the research for the Toolkit are likely to be relevant to the young people who are Youth Futures' primary focus.

The majority of the evaluations included in the research are explicitly designed and targeted for young people who experience some form of disadvantage, including socio-economic disadvantage and/or issues related to educational attainment and opportunities. Some studies examine interventions that were delivered mostly or solely to young people who were identified as having additional risk factors associated with poorer employment outcomes. In the analysis for the Toolkit, studies of interventions where over half of the treatment group fell into this category were defined as relating to young people who faced 'additional barriers'. This group includes:

- Young people living with a disability.
- Young people who have one or more of the following reported characteristics: current or former experience with the out-of-home care system, a self-identified or diagnosed mental health condition, current or former experience with the juvenile justice system, identifies as member of marginalised ethnic groups, identifies as LGBTQ+, or is a single parent.

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[2] For example, Powel, A. (2021) *NEET: Young people Not in Education, Employment or Training*, House of Commons Library Research Briefing Number 6705, https://researchbriefings.files.parliament.uk/documents/SN06705/SN06705.pdf

Where it was possible to identify outcomes for these groups that differed markedly from those for the study population as a whole, these are reported in the section of the Toolkit that relates to the relevant intervention. Details can be found in Annex 1 below.

Audiences

The Toolkit is designed for stakeholders who have an interest in improving outcomes for young people who are at risk of marginalisation in relation to the labour market. We anticipate that it will still be of interest to *four* main audiences:

- **Policymakers** in central, regional or local government, or in other organisations and agencies that are involved in policy development. Policymakers may be most interested in the 'key findings' and 'about the evidence' sections.

- **Intermediaries** who work with multiple different stakeholders to improve youth employment outcomes and support young people. Intermediaries include youth organisations, grant makers (like the Youth Futures Foundation itself), and agencies that organise interventions and activities for young people.

- **Practitioners** involved in delivering youth employment interventions and other programmes and activities for young people. Practitioners may be most interested in the implementation sections of the Youth Employment Toolkit.

- **Employers and employer organisations** involved in planning and delivering youth employment interventions, or working in partnership to support or recruit and retain marginalised young people.

Structure and content

Overview

The Toolkit is organised in three 'levels', increasing in detail from the landing page to the underpinning reports.

Figure 1: Youth Employment Toolkit structure
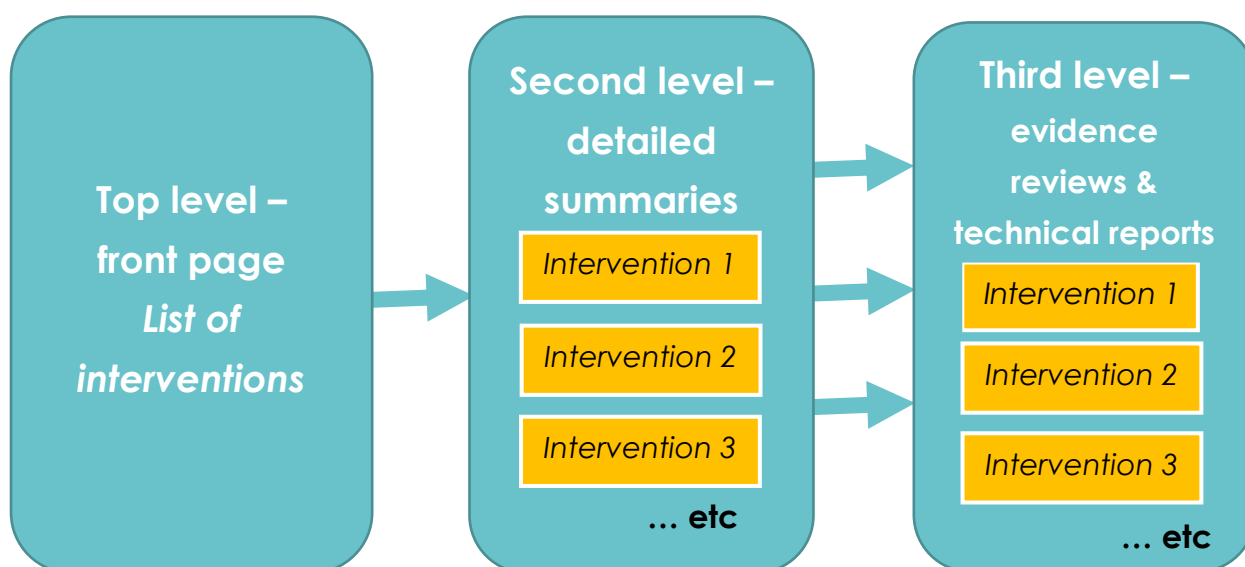
Top level – front page

The front page of the Toolkit sets out the interventions that are included in the Toolkit, with an overview of their likely impact on youth employment outcomes, the strength of the evidence for this impact, and the inputs needed to implement them. This page also offers the option of filtering which interventions are shown according to these categories. The front page is designed to help users orientate themselves towards the detail in the second level of the Toolkit.

- **The impact rating** shows the likely average impact of each intervention on youth employment outcomes. This is based on the findings of the meta-analysis of evaluations that was conducted as part of the development of the Toolkit. This pools evidence from relevant studies of sufficient quality that were conducted in high-income countries whose economies and labour markets are broadly comparable with England.

The impact rating relates to *individual interventions* rather than *whole programmes that include the intervention*. The impact rating uses a three-point scale, which is established on the basis of international evidence for the likely impact of interventions on youth employment.

- **The evidence strength rating** reflects the *number of studies* and the *confidence in the evidence* that is used to derive the impact rating. This is based on the evidence review team's assessment of individual studies, using a standard tool.

- **The cost rating** reflects the *number and cost* of the inputs required to implement each intervention. This is based on an analysis of theories of change relating to each intervention.

Figure 2 : The Toolkit landing page
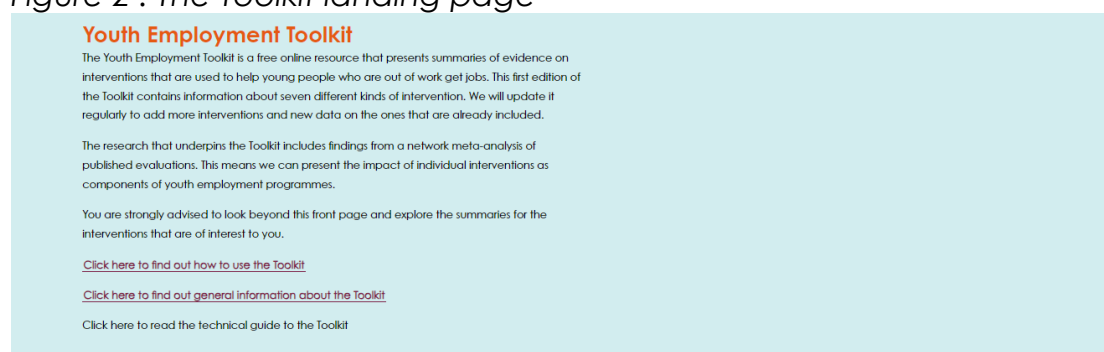
Second level – detailed summary

The second level contains detailed summaries of the evidence for each intervention. Currently it contains seven pages corresponding to the seven interventions in this first iteration of the Toolkit. The information on these pages is taken from the evidence reviews that were conducted to support the development of the Youth Employment Toolkit, and from supplementary literature searches and reviews conducted by Youth Futures staff.

Each summary includes:

- **A definition** of the intervention, setting out its key characteristics, the activities typically involved, and the kinds of aim or goal that are frequently associated with interventions of this kind. This section also includes examples of how the intervention has been used in recent years in the English and/or UK context. Because the evidence base that underpins the reviews conducted for the Toolkit is international, the definition also states the criteria that meant an intervention was included in the relevant category for the analysis. In some cases, a different term may have been used for an intervention that matches one of the Toolkit definitions.

- **Key findings** from the evidence reviews about the average impact that the intervention is likely to have on youth employment outcomes for disadvantaged young people. This is based on a meta-analysis of findings from evaluations of the intervention, or of programmes including the intervention, in high-income countries (see below). The key findings section also contains some information about the wider context for this finding. This may include the impact of the intervention on outcomes other than (but possibly related to) youth employment, findings derived kinds of research that did not meet the criteria for the Toolkit evidence reviews, notes on economic and social contexts, etc.

- **An evidence rating**, indicating the overall strength of the evidence for the average impact of the intervention on youth employment outcomes. This section also shows how the rating was derived from information about the number and type of studies that were available.

- A note on **how the intervention works**, setting out a short summary of a 'theory of change'.

- Some information about the range and nature of **necessary inputs** for the intervention.

- **Information about how to implement the intervention well**, with some brief details of approaches that appear to be associated with its effective use in frontline settings.

- **Links** to additional resources, including evaluations included in the evidence reviews, supplementary studies, policy papers, case studies, and examples of programmes for each intervention type.

Figure 3 : Detailed summary page for an included intervention

A summary of the impact estimates, evidence ratings and cost ratings for all interventions in the first version of the Toolkit are given in Annex 1 at the end of this technical report.

Third level – the research reports

The third level of the Toolkit includes the research reports that underpin the Toolkit.

How the Toolkit was developed

The evidence base for youth employment interventions

This first version of the Toolkit was developed following discussions within Youth Futures and its stakeholder networks. In 2020, the organisation commissioned a review of the literature on 'what works' to support disadvantaged young people into meaningful work (Newton et al., 2020). This identified several interventions for which there is evidence of a positive impact on youth employment, as well as some common principles across youth employment provision. However, overall, the authors concluded that '… the evidence base is not strong enough to draw robust conclusions on what works specifically for those young people furthest from the labour market'. Challenges include a relatively small body of studies that can demonstrate the impact of interventions using a control or comparison group, especially in relation to provision that is *not* led by central government, compounded by a lack of evaluations of this kind of programme delivered in England or the UK.

Perhaps unsurprisingly, systematic reviews of the evidence on employment interventions for marginalised young people are also fairly limited. The research team behind the Youth Employment Evidence and Gap Map (EGM) found that youth employment is an 'under-reviewed area' compared to other social policy fields, and could benefit from more systematic reviews (White et al., 2021). Research for the 2022 version of the EGM found only 22 systematic reviews, and within this group a smaller proportion include evidence from the UK or similar high-income countries.

As the What Works Centre for youth employment, Youth Futures is committed to addressing these gaps. Our evidence generation activities will increase the number of high-quality evaluations of youth employment interventions. Our evidence curation and synthesis programme will help to make findings from the best available literature more accessible and available for decision-makers. The Youth Employment Toolkit, which is based on new literature reviews and meta-analyses, is a key contribution.

Creating the Toolkit

The Toolkit was developed through three interrelated workstreams.

Figure 4: Toolkit development process

Evidence reviews & meta-analysis

- An expert research team conducted rapid evidence assessments (REAs) of the literature on *seven* different kinds of intervention that are used to improve youth employment outcomes for marginalised young people
- Youth Futures worked with an expert adviser to develop this evidence base and translate it into a Toolkit format.

User research & engagement

- Design research explored the evidence needs of Youth Futures' stakeholders and used their findings to develop visual and content designs for the Toolkit
- Youth Futures engaged with a group of young people with experiences of receiving the interventions in the Toolkit.

Writing & reviewing

- A team of Youth Futures staff wrote text for the Toolkit, based on the REAs, additional information on context and processes for the Interventions, and organisational expertise on youth employment interventions.
- Draft Toolkit text was reviewed by representatives of the Toolkit's key audiences.

Evidence reviews and meta-analysis

Recognising the lack of systematic reviews, Youth Futures commissioned an expert research team (through a competitive tender process) to conduct rapid evidence assessments (REAs) of the evaluation literature on key interventions. A team of experts from the Institute for Employment studies (IES)

and the Centre for Evidence and Implementation (CEI), working with researchers from Monash University (in Melbourne, Australia) undertook this work (the 'evidence review team'). We also engaged Dr Howard White, of the Global Development Network and Campbell Collaboration, as expert adviser for the Toolkit.

The first stage of the evidence review process involved deciding which interventions were suitable for an REA. The evidence review team worked with Youth Futures staff to assess which of a 'long list' of interventions could be included in the first version of the Youth Employment Toolkit. In addition, Youth Futures undertook internal and external consultation to identify interventions that were of particular interest to stakeholders. Some of the issues considered at the scoping stage included:

- The relevance of the intervention to the current context of youth employment for marginalised young people in England.
- The availability of evaluations of sufficient quality to underpin a meta-analysis of findings. Although it is possible to include information on interventions for which this is not the case, this was not felt to be appropriate for the first version of the Toolkit.

For the first version of the Toolkit, scoping notes on *ten* different interventions were developed, as well as a longer scoping note on the network meta-analysis (NMA) method (the decision to conduct an NMA is discussed below). Based on the scoping notes, *six* interventions were selected for inclusion in the first version of the Toolkit. Wage subsidies, as an economic and policy intervention, was considered more suitable for a 'standalone' REA. The other five, all of which relate to frontline learning and development activities for young people, were included in the NMA. During the development of the NMA, the 'on-the-job training' category was revised to reflect the substantial differences in delivery approach between short on-the-job training programmes and longer programmes that more closely fit the definition of an 'apprenticeship'. In practice, evaluations of the latter programme that met the criteria for inclusion did *not* include any cases in which an apprenticeship was delivered alongside other components. The REAs were externally peer-reviewed and are published alongside the Toolkit.

User research and engagement

Youth Futures commissioned a team from [TPX impact](#) to consider how we could create an accessible, practical and engaging Toolkit for our *four* target audiences. This work involved three workstreams:

- User research, through interviews with a wide range of policymakers (from central and local government, agencies, and organisations with a policy focus), practitioners and intermediaries, employers, and representatives of employer organisations. Interviews explored how potential Toolkit users felt about engaging with evidence in their work on youth employment outcomes, including their interest in a Toolkit. Youth Futures staff supplemented this work through interviews with staff at other What Works Centres and research organisations that have developed evidence resources of their own.
- Design research, building on the user research to develop, test and refine potential designs for the Toolkit.
- Content design, to establish frameworks for the content of Toolkit sections and work with Youth Futures staff to ensure consistent and effective writing.

As well as making sure that the appearance and text of the Toolkit closely matched user needs, we wanted its content to reflect the experiences of young people engaging with the relevant interventions in England today. Working with the evidence review team, we brought together a group of young people, each of whom had experience of at least one of the interventions included in the Toolkit. We gathered their impressions and reflections on the interventions in two ways: a focus group session, and through written responses to a series of questions about the interventions. Findings from this exercise informed the approach to writing the Toolkit content.

Writing and reviewing

Researchers at Youth Futures conducted additional analyses of information on implementation and processes from studies in the NMA to identify approaches to implementation that are used in programmes with a positive

impact on youth employment outcomes. This was supplemented with additional literature from the EGM and other high-quality sources. Youth Futures researchers, with expert advice, also gathered and summarised additional material to provide context for the NMA findings.

Youth Futures staff used a content design template to write up findings from the evidence reviews and the contextual and process information. This text was reviewed by representatives of the different Toolkit user groups as well as by experts within Youth Futures, the expert adviser, and the evidence review team. Reviewer comments were used to refine the text prior to publication.

The Rapid Evidence Assessments (REAs)

REA development

The Toolkit is based on a series of rapid evidence assessments (REAs) commissioned specifically for this evidence resource. The existing literature did not offer sufficient detailed and focussed systematic reviews to form the basis for a Youth Employment Toolkit. The protocols for the Toolkit REAs are published on Open Science (Newton et al., 2022, Ott et al., 2022).

Two REAs were commissioned for the first version of the Toolkit. One of these examines wage subsidy programmes. As a policy/labour market intervention rather than a type of learning and development activity, this was felt to be different in nature from the other six interventions selected from the scoping notes.

Rapid reviews have become an important methodology for knowledge synthesis for policy development and recently described as '… a type of knowledge synthesis in which Systematic Review methods are streamlined and processes are accelerated to complete the review more quickly' (Garritty et al., 2021).

Approach to literature reviewing

A decision was taken during the scoping stage to limit the literature reviewed for the Toolkit to studies undertaken in high income countries. This meant that the evaluated studies would be conducted in countries whose economies and labour markets are broadly similar to those of the UK and England, where the primary audiences for the Toolkit are based. The most extensive available literature reviews (Puerto et al., 2022, Kluve et al., 2017) find that the impacts of youth employment interventions differ in several key ways between high-, middle- and low-income countries, with the most marked differences between high income and low or middle-income countries. For this reason, the restriction can be assumed to offer a higher degree of relevance to the

English case than a global review might have done. The Youth Futures Foundation plans future research into evidence translation, especially for the US-UK case, as so many studies in the Toolkit are from the US. In practice, relatively few of the studies identified as suitable for inclusion in the REAs reported on evaluations conducted in England or the wider UK. In the light of the findings of Newton et al. (2020), this is not surprising. It does, however, strengthen the case for additional evaluations of youth employment interventions in England. Youth Futures is committed to increasing the number of contemporary evaluations of interventions in England to build the evidence base and ultimately add to our own toolkit.

Although Youth Futures' focus is on the age group 14-24, studies were included in the meta-analyses for the age group 16-30. This age range mirrors the one used in the Youth Employment Evidence and Gap Map, reflecting differences in how countries and policy frameworks define 'youth'. By extending the age group we can capture a wider range of studies that are potentially relevant to the English context. This approach excluded evaluations of interventions that took place entirely within compulsory education, and allowed the searches to capture a wider range of relevant interventions in an international literature.

Reviewing multi-component interventions

A recurring theme in the literature on youth employment interventions is the 'programmatic' nature of delivery. The scoping notes for the REAs indicated that the selected interventions were most frequently delivered as part of larger programmes that contained two or more components. This echoes the findings of other reviews (e.g., Kluve et al., 2017). Internationally, multi-component programmes, in which young people encounter two or more different kinds of activity, appear to be the norm. For example, young people who take part in off-the-job training may also receive life skills instruction and engage with case management. Most of the activities in this first version of the Toolkit are more commonly provided as components of larger programmes than on their own.

This approach to delivery lets young people receive different types of support and potentially receive a range of different benefits from this. However, it

raises challenges for evaluation because it is difficult to unpick the impact of each element within the overall impact of the package of support.

The evidence review team identified that a component network meta-analysis (CNMA) might be able to disentangle the relative impact of each of the components of interest which are frequently delivered as part of a programme. It could, potentially, also identify combinations of components that have an impact. An extended scoping note explored how this might be done, and tested the feasibility of the approach. Following the scoping exercise, the evidence review team, expert adviser and Youth Futures team concluded that this approach was both practical and desirable. A protocol was produced to guide the production of a CNMA.

Network Meta Analysis (NMA) is a statistical technique that was originally developed in the medical sciences. It can be applied to evaluations of social interventions that seek to address the same problem, in the same kind of population, with the same outcome construct (Wilson et al., 2016). Network meta-analysis works by combining direct and indirect evidence in a network (Tsokani et al., 2022). In its simplest form, it is a weighted regression that synthesises both direct evidence (sourced from head-to-head experiments) and indirect evidence (obtained from comparisons across a common factor – for example using a study comparing intervention A vs B and one comparing intervention B vs C to generate indirect evidence about B) to enable comparison of multiple interventions (Petropoulou et al., 2021).

Three major types of NMAs that can be used to disentangle individual effects within complex programmes are: standard NMA, Additive Component NMA and Interaction Component NMA:

- In a *Standard NMA* (or 'full- interaction' NMA), each combination of components identified by the review is considered to be a separate intervention and is assigned its own effect size.
- In an *Additive Component NMA*, each intervention component has a separate independent effect. Therefore, the total effect of an intervention is equal to the sum of the component effects (the 'additivity assumption').

- In an *Interaction Component NMA*, the additive component NMA is extended by allowing for the inclusion of interactions between two or more pairs (or trios etc.) of intervention components. This means that the total effect can be larger or smaller than the sum of its effects.

Since employment and skills programmes often consist of combinations of these components, a CNMA method was identified as the most appropriate method for this review, because it allowed researchers to separate out the relative contribution of each component. A standard NMA was also conducted as a complement to the CNMA, in order to identify the impact of frequent combinations of components.

The review team developed and tested four separate CNMA specifications, each of which used different levels of detail on the combinations of intervention components and comparators. Because the range of programmes in the studies reviewed included interventions that were *not* among those selected for inclusion in the Toolkit, all these models included an approach to managing the 'other' category (that is, all the other interventions that were included in programmes but not one of the six specific interventions that were searched for). Some examples of activities in the 'other' category include case management, work experience without a training element, and support with personal issues. In the research design, a 'consolidated other' component is included, within an overall model that allows for heterogeneity in the nature of the 'other' elements of interventions.

The research design compared interventions against 'services as usual' (SAU), or the support and opportunities that young people might receive outside specific programmes to improve youth employment. Again, the model allows for heterogeneity within SAU.

The CNMA approach allowed the evidence review team to identify the impact on youth employment outcomes of individual components of programmes (interventions) and combinations of components. The analysis also explored the impact of combinations of components where sufficient evidence on a particular combination was available from the included studies; for example, a combination of basic skills training with off-the-job

training and another component appears more impactful than either basic skills training *or* off-the-job training on their own.

The NMA approach proved highly suitable for a review and meta-analysis of data on youth employment interventions. Its ability to examine the impact of individual interventions when delivered as part of a larger programme considerably increased the number of studies that could be included in relation to each component beyond what would have been possible had only evaluations of 'standalone' delivery been used. It also offered a greater degree of precision than would have been the case had multi-component interventions been treated *just* as examples of their main component. For this reason, in future versions of the Youth Employment Toolkit we will assess whether new interventions are suitable for 'individual' reviews or whether they can be integrated into the existing CNMA framework.

In the first edition of the Toolkit, the 'headline' finding for each intervention is taken from the CNMA. This relates to the likely average impact of the intervention where it is used as a component of a youth employment intervention. In some cases we include supplementary information from the standard NMA on combinations of components, depending on the evidence strength and magnitude of findings.

The nature of the interventions in the first version of the Toolkit

Most interventions in the first version of the Toolkit relate to various kinds of skills training and development. This reflects the relatively high salience of these in the current English policy context. In addition, skills training interventions are one of the more extensively evaluated types of youth employment intervention internationally (Kluve, 2017, Puerto, 2022).

These interventions have, inevitably, some overlap with education provision either within standard compulsory schooling, or as a post-compulsory option for young people on an 'uncomplicated' pathway through learning and employment. For example, most young people are taught 'basic skills' at school; on-the-job and off-the-job training, as well as apprenticeships, can be chosen as an option on leaving school or when retraining, and 'life skills' can be offered as an option to employees or alongside a college course.

The reviews for the Toolkit examine evaluations of these kinds of learning *only* where they are offered as part of an intervention to improve youth employment outcomes for young people. For example, the 'mainstream' apprenticeship systems in European countries or the UK are not included (nor are these, for the most part, the subject of comparison-group evaluations); nor are on- and off-the-job training programmes that young people access through a standard application procedure, or basic skills learning acquired through GCSE or equivalent study. The contextual information in several of the Toolkit sections *does* include evidence for the relationship between employment outcomes and learning of this kind.

The young people eligible to take part in the evaluated interventions were in most cases at risk of some degree of marginalisation in the labour market, or at least of a prolonged period of unemployment. Therefore, participants in the interventions are likely to differ in some ways from those who might engage in similar learning opportunities in 'standard' compulsory or post-compulsory education.

Identifying and reporting estimated impact

Youth employment outcomes and other impacts

The Youth Futures mission is to improve youth employment outcomes for young people from marginalised backgrounds. We aim to narrow the 'gaps' in rates of employment between young people from different social groups. With this in mind, our primary interest is in the differences between employment rates for young people who take part in an intervention and those who do not.

This is not the only outcome of interest to Youth Futures. Others include:

- Attainment of qualifications, which can indicate skills gains and support employability and/or further learning and training.

- Education and training destinations, because further learning and training can support employability.

- Hours worked, which can indicate strength of engagement in work, job quality, stability and duration of work, job opportunities, and other factors in future employability.

- Wage levels, which are one indicator of job quality.

- Skills gains, in relation to vocational skills, improvements in literacy, numeracy and digital abilities, and socio-emotional learning.

It was not possible to include information on skills gains in the CNMA, and this information was not examined in detail in the evaluations that underpin the review of wage subsidies either. However, the supplementary literature reviewing described below identified some evidence about skills gains. The evidence review team explored the possibility of conducting meta-analysis in relation to earnings and hours worked. Unfortunately, this turned out not to be practical. In future versions of the Toolkit, the possibility of extending the meta-analysis to additional outcomes of interest will be explored. The wage subsidies REA includes a narrative synthesis of findings on earnings, re-employment, and receipt of welfare benefits.

This all meant that both REAs examined two kinds of outcome:

- **Employment status**. A range of different measures of employment following programme participation were used in the included studies. These were pooled into the meta-analysis to derive a single outcome measure, broadly indicating 'likelihood of employment' (this is used to derive the 'impact estimate' in the Toolkit). In the case of the wage subsidies REA, all but one of the included studies used a measure of employment 24 months after programme start; in all cases the measure related to *unsubsidised* employment. The studies in the CNMA used various different measures, including whether or not a young person had been employed at any point following the intervention, whether they had worked within a defined period, whether they were employed at the time of measurement, and the probability of employment. A hierarchy of employment-related outcomes was used to determine which measure should be used in cases where multiple different measures were reported.

- **Education**. A smaller number of studies reported outcomes relating to education. The CNMA REA identified studies that included information about whether young people had completed secondary schooling, or achieved a qualification equivalent to a high school leaving qualification. The international nature of the evidence base meant that the qualifications included varied between contexts. The wage subsidies REA included two studies that reported on the probability or record of a participant being in education of some kind 24 months after programme completion.

The 'employment status' outcome is used to derive the 'headline' impact rating for the Toolkit. Impacts on other outcomes are reported in the narrative in the detailed summary for each intervention.

We have *not* included impacts on education completion in the short summaries that appear in the first version of the Toolkit. The findings of the standard NMA and CNMA did not identify any individual components or combinations of components that appeared to have an impact on education completion. Where findings appeared promising, they were in

each case supported by only one study. We will return to the issue of education completion in future versions of the Toolkit.

Deriving and reporting the impact estimate

Landing page (top level)

The landing page of the Toolkit reports the estimated average impact of each intervention on youth employment outcomes. *Three* categories of impact are used in this first version of the Toolkit. These are based on the Standardised Mean Difference (SMD) associated with each component or combination of components in the meta-analysis conducted in each REA.

The scale is as follows:

No/Low impact	SMD = 0.00 – 0.10
Moderate impact	SMD = 0.11 – 0.19
High impact	SMD = 0.20 and above

The research for the first version of the Youth Employment Toolkit did not identify any interventions that had a negative impact on youth employment outcomes. Should future reviews find evidence of this kind we will add a 'harmful' rating to the scale to reflect this.

These figures reflect the findings of Puerto et al. (2022) in a large-scale international systematic review of the literature on youth employment interventions. This study finds an overall figure of SMD=0.07 for youth employment interventions in High Income Countries (HICs). SMD = 0.07 is *also* the figure for 'employment outcomes' in the 2022 ILO review (rather than for outcomes across all domains). The Youth Employment Toolkit REAs include *only* studies from HICs and focus on youth employment as the main outcome of interest. For these reasons, the above figure provides a good broad indication of what kind of impact a youth employment intervention can reasonably be expected to have.

This scale differs from the interpretation of effect size based on SMD proposed by Cohen (Nakagawa et al., 2017), in which a 'small' effect is defined as SMD=<0.2, 'medium' as SMD=0.5 and 'large' =0.8. This scale is widely accepted in the physical science literature. Its use in social science is more limited, however, partly because effect sizes that meet its threshold for 'large' are relatively rare in these fields. However, because effect size distribution varies considerably between fields of study, some authors suggest that 'effect sizes are best understood when interpreted within a particular discipline or domain' (Plonsky and Oswald, 2014, see also Brydges 2019).

On this basis, we suggest that the above scale is appropriate for the field of youth employment, following the comprehensive and current analysis in Puerto et al. (2022). Similarly, Newton et al. (2020) found that high-quality evaluations of youth employment interventions frequently note an impact on employment outcomes that was smaller than 10 percentage points. There is precedent for a departure from Cohen's levels in other What Works Centre Toolkits; for example, the Youth Endowment Fund defines 'low' effects as SMD=<0.1 but above 0, 'moderate' as SMD=0.1-0.25, and 'high' as SMD=>0.25.

In fact, Puerto et al. (2022) describe 0.07 as a 'medium' effect size, based on the 'social science meta-analyses of educational outcomes' reported by Kraft (2020). Kraft suggests that 'small' be classified as *SMD*= <0.05 and large as *SMD*=>0.2. Kraft argues that:

> *'Researchers commonly interpret effect sizes by applying benchmarks proposed by Jacob Cohen over a half century ago. However, effects that are small by Cohen's standards are large relative to the impacts of most field-based interventions. These benchmarks also fail to consider important differences in study features, program costs, and scalability'*

Similarly Ghisletta et al (2021) follow Kraft et al in setting the lower limit for for a moderate impact level rather lower than we do, at 0.05. Their threshold for a 'large' impact is also 0.2.

Effect sizes are included whether or not they are statistically significant ($p < 0.05$). Statistical significance is reported in the detailed summaries and the REAs. The latter provides extensive detail on the analytical approach, statistical power issues, and the exploration of different models of CNMA to achieve a high level of precision. This broadly follows the suggestion of Wasserstein and Lazar (2016) on the approach to p values in relation to policy decisions.

Detailed summary page

The detailed summary pages express the likely average impact of each intervention using a non-clinical wording of the 'number needed to treat' or NNT[3]. The summary gives the number of young people who would need to take part in an intervention, on average, for *one* young person to get a job who would not otherwise have done so. In a small number of cases an alternative wording is used for reasons of clarity.

The NNT is calculated in the individual REAs that underpin the Toolkit. The authors of the REA reporting findings from the NMA converted SMD for all statistically significant impacts to a 'number needed to treat' using a method proposed by Furukawa and Leucht (2011) that utilises the SMD and a reasonable estimate of the control group event ratio (CER) i.e., the rate at which an event occurs in the general population without the presence of the intervention. For the employment status outcome, a CER of 0.45 was estimated, based on a weighted average of results reported in included studies. To calculate the NNT an R implementation of Furukara and Leucht's method was used; this is included the *dmetar* package (Harrer et el. 2019).

SMD was also converted to a percentage change by converting *d* to an odds ratio using the Excel formula OR=EXP(SMDx **π**/3^0.5. This was used to calculate treatment event rates using the above CER, from which a percentage change was calculated. We have not included percentage changes in the summary text, for reasons of clarity.

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[3]
https://www.nice.org.uk/glossary?letter=n#:~:text=Number%20needed%20to%20treat,the%20more%20effective%20the%20treatment.

REAs

The evidence review team conducted the relevant calculations and full details can be found in the REAs.

- In the wage subsidies REA, the mean effect size from the meta-analysis is translated into the units of study of Di Giorgi (2005).

- For findings from the CNMA and standard NMA, the NNT was calculated using a method proposed by Furukawa and Leucht (2011) that utilises the SMD (in this case, Hedge's *g*) and a reasonable estimate of the control group event ratio (CER) i.e., the rate at which the event occurs in the general population without the presence of the intervention. For the employment status outcome, the evidence review team estimated a CER of 0.45 based on a weighted average of results reported in included studies. To calculate the NNT an R implementation of Furukara and Leucht's method was used; this is included the *dmetar* package (Harrer et al., 2019).

Moderators

The effect sizes reported in the Toolkit are averages across all the included studies. However, effect sizes vary between individual studies and this variation can be substantial. Variation in the impacts of different implementations of the same youth employment intervention can be due to numerous factors, including:

- The local, regional, national and global context in which it is implemented, and within which young people must seek work.

- Where relevant, alignment between provision and the local economy, including the jobs that are (or are likely to become) available and accessible for young people.

- The socioeconomic context in which it is implemented, including factors such as the compulsory education system and how it prepares the particular cohort of young people in the intervention for employability-related activities; local community characteristics; and

the infrastructure surrounding the intervention, including transport, digital infrastructure, etc.

- Characteristics of its implementation, including the level of funding availalbe relative to the costs of the programme; the quality and nature of partnerships between different stakeholders involved in implementation; its relationship to other youth provision; and the skills and approaches of staff involved in delivering the intervention.

- The duration and intensity of delivery.

- Personal characteristics and challenges faced by the young people involved in the intervention, and the availability and accessibility of support with these, where required.

- The ability and willingness of young people to engage with the intervention.

And possibly, also:

- The sectors, roles and sites that are its main focus.

The detailed summary section includes discussion of potential moderators in the section on implementation.

Evidence strength ratings

Inputs to the evidence strength rating

The Toolkit provides a rating of the relative *strength* of the evidence for each impact rating. This reflects the size of the evidence base from which the impact rating is derived and the REA authors' assessment of their confidence in the studies that were used to derive each impact rating.

Number of studies

As with the impact rating, we took a 'field specific' approach to assessing evidence strength on the basis of the number of studies available. This appears to be a common approach across evidence resources including

Toolkits in different areas of social policy; for example, in heavily-evaluated areas, a count of ten studies would attract the lowest rating, while those where impact evaluations are rare it would count as a large quantity.

We considered two extensive reviews that use a systematic approach to searching the literature, Puerto et al. (2022) and White and Apunyo (2021). The former identified 92 studies relating to HICs. Among those, by far the most frequently evaluated type of intervention is skills training; for studies conducted in Europe and North America 61% of interventions (n=61) evaluated include a component of this kind. Wage subsidies, by contrast, appear less frequently. For HICs, various types of wage subsidy appear in 23% (n=23) of interventions evaluated.

White and Apunyo (2021) found 92 studies in HICs that explore employment outcomes in relation to programmes including various kinds of technical and vocational education (which would include much on-the-job and off-the-job training). Of the studies reviewed, 42 look at this outcome in relation to life skills training, and 36 look at outcomes that relate to various types of wage subsidy.

These figures confirm the observation of Puerto et al. (2022) that training and skills interventions are the most frequently evaluated type of interventions. As this type of intervention makes up a substantial part of the content of the first version of the Youth Employment Toolkit, it is possible that study numbers will be markedly lower as the Toolkit expands. For example, White and Apunyo (2021) include only 23 evaluations of careers guidance and 24 of social security measures in HICs. In future versions of the Toolkit, we will revisit the 'number of studies' element of the evidence rating to ensure it remains fit for purpose.

Confidence in studies
The evidence review team assessed their confidence in each included study using the approach developed by the Campbell Secretariat and applied in developing the Youth Employment Evidence and Gap Map (White and

Apunyo, 2021, see also Saran (2020)). Study confidence was assessed by one reviewer and the results were checked by another.

Confidence in included studies was assessed using the *Quality assessment of Impact Evaluations* tool (White et al., 2022), in alignment with the EGM on *The effectiveness of Interventions to improve employment.*
The tool scores studies as either low, medium or high confidence across six domains and one overall confidence measure:

1. If the study design can control for potential confounders[4]
2. If the study has adequate sample size
3. If losses to follow up are presented and acceptable
4. If the intervention is clearly defined
5. If outcome measures are clearly defined
6. If there is baseline balance between treatment and comparison groups[5]
- Overall confidence based on the lowest scores for items 4, 5 and 6.

Toolkit users should be aware that these assessments are based on *the content of published evaluations* rather than *directly on the conduct of the evaluations that they report.* This means that a well-designed and conducted study whose report does not include some or all of the relevant information in sufficient detail could be assigned a lower confidence rating on the basis of what researchers can find out about it than would be the case if they had full knowledge of how it was conducted. The confidence ratings should therefore be regarded as cautious overall.

In addition, the evidence in the Toolkit is *all* based on good quality REAs. The evidence strength ratings must be read in this context.

Deriving the evidence strength rating

In the first version of the Youth Employment Toolkit, we use a *three-point* rating scale in the 'headline' figures on the Toolkit landing page. At this

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[4] 'Confounders' are factors that could affect *both* variables being studied; in this case, a confounder would affect *both* the intervention *and* youth employment outcomes.
[5] 'Baseline balance' is the comparability between the group who receive an intervention (the 'treatment group') and the group with whom they are compared (the 'control group').

stage, the Toolkit does not contain any interventions for which *no* evaluations suitable for inclusion in the meta-analysis were found. Should any such interventions be included in future versions, we will add a rating of 'Insufficient evidence' to reflect this.

The rating system works as follows:

Step 1 – number of studies
Assign an evidence rating for each intervention by the number of studies that are used to develop an impact estimate:

- Low - 10 studies or fewer

- Moderate - 11 – 19 studies

- High - 20 or more studies

Step 2 – average study confidence
The confidence score is generated by assigning an average confidence score for the studies that report on each intervention. This is on the evidence review team's assessment of study confidence. 'Low' confidence studies are rated as 1, 'moderate' confidence studies as 2 and 'high' confidence studies as 3. On this basis, the evidence base for each intervention is assigned an average score between 1 and 3.

Adjust the Step 1 score as follows:

- If the confidence score is below 2, reduce a high step 1 score to moderate and a moderate step 1 score to low. A low step 1 score remains low.

- If the confidence score is between 2 and 2.5 AND the number of studies is below 5, the step one score does not change.

- If the confidence score is between 2 and 2.5 AND the number of studies is 5 or more, raise a low step 1 score to moderate and a moderate step 1 score to high. A high step 1 score remains high.

- If the confidence score is between 2.6 and 3 AND the number of studies is 5 or more, raise a low step 1 score to moderate and a moderate step 1 score to high. A high step 1 score remains high.
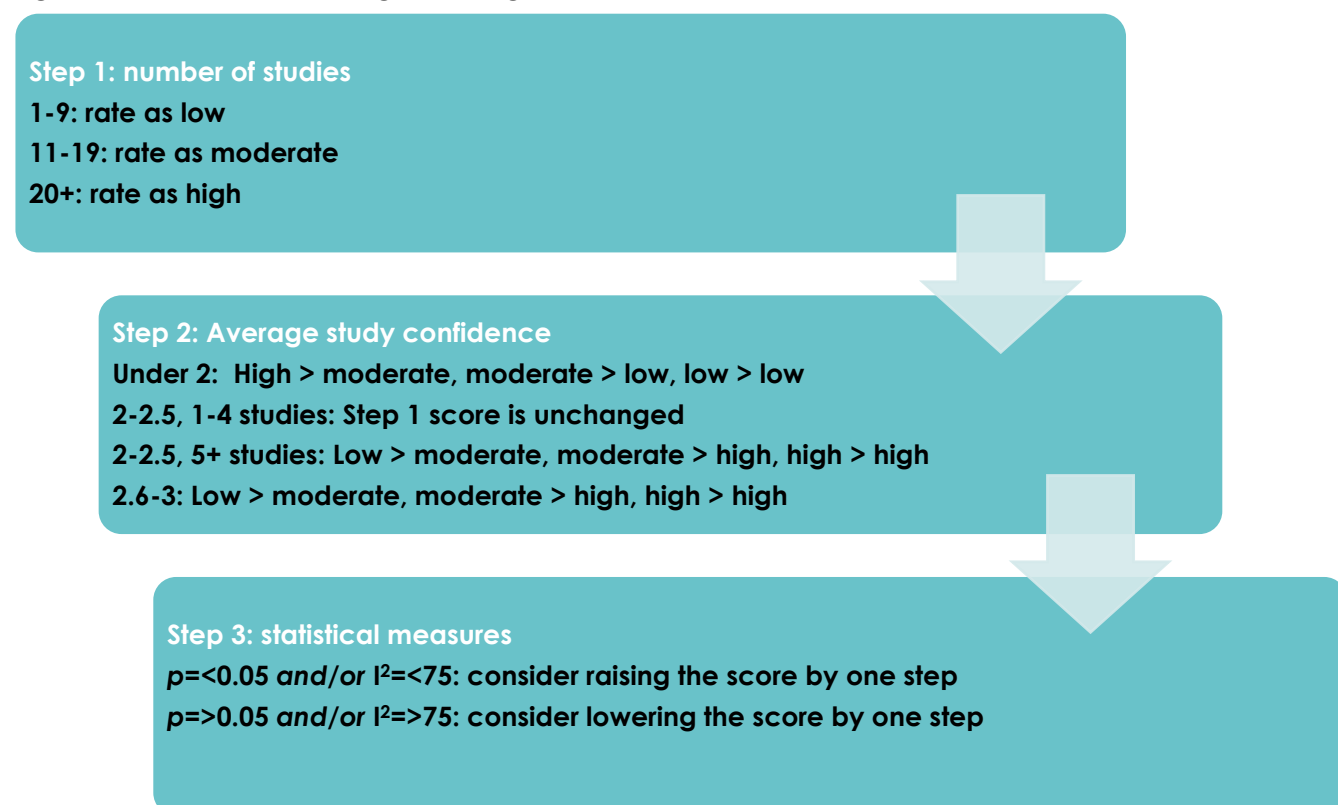
Step 3 – statistical measures

We also examined the analytical findings for each of the findings and judged whether to adjust the score based on the following:

- The reported *p* value as a measure of statistical significance. A *p* value of 0.05 or above would generally be likely to lead to a *lower* rating.

- The I^2 rating as a measure of inconsistency between direct and indirect evidence for the effects of different combinations of components in the standard meta-analysis. A higher score would be likely to lead to a lower rating. In practice the evidence for a high impact on youth employment of a combination of components was usually all direct.

Figure 5: Evidence strength rating process

Step 1: number of studies
1-9: rate as low
11-19: rate as moderate
20+: rate as high

Step 2: Average study confidence
Under 2: High > moderate, moderate > low, low > low
2-2.5, 1-4 studies: Step 1 score is unchanged
2-2.5, 5+ studies: Low > moderate, moderate > high, high > high
2.6-3: Low > moderate, moderate > high, high > high

Step 3: statistical measures
p=<0.05 *and/or* I^2=<75: consider raising the score by one step
p=>0.05 *and/or* I^2=>75: consider lowering the score by one step

Cost rating

Data on the costs of youth employment interventions

The Youth Employment Toolkit includes a cost rating for each intervention. This is based on the number and type of *inputs* needed to implement the intervention well. This is for several reasons:

- The programmatic nature of youth employment interventions. Just as the vast majority of evaluations that report programme impact do *not* separate the contributions of individual components of an intervention, information on the costs of individual components is generally not provided.

- Many evaluations do not include information, or detailed information, about the financial cost of interventions, or about cost effectiveness or cost-benefit balance.

- The international nature of the evidence base raises challenges for comparing the financial costs of interventions.

- The same intervention can be 'low cost' for some of our stakeholder audiences but 'high cost' for others.

- For at least some interventions, good implementation depends on inputs other than cost. For example, some interventions need particular kinds of expertise to succeed, or require high levels of staff time.

Reporting the costs of youth employment interventions is challenging, and many studies do not include relevant information. Puerto et al. (2022) note that data on costs, cost-benefit and/or cost-effectiveness are relatively sparse in evaluations of youth employment interventions published before 2012 (see also Kluve et al., 2017), although this information is a little more frequently included in recent studies. Just over half (53) of the HIC evaluations reviewed by Puerto et al (2022) included information on costs, and just under a third (34) included cost-benefit analysis.

The Youth Employment Evidence and Gap Map (White and Apunyo, 2021) does not contain any systematic reviews that include cost, cost-benefit, or

cost-effectiveness information for the types of intervention included in the Youth Employment Toolkit in studies of HICs. The number of evaluations that include information on costs is shown in Table 1 below, along with a brief note on the aggregate direction of their findings. Note that most of these interventions (see below) are programmatic and the intervention type in column 1 is *the most prominent component* of the programme, rather than a standalone intervention of this type.

Table 1: Cost data in evaluation studies in the Youth Employment EGM (White and Apunyo, 2021), Youth Futures analysis

	All studies (n)			HICs only (n)			Findings (HICs)
	Cost	Cost-benefit	Cost-effect.	Cost	Cost-benefit	Cost-effect.	
Technical and vocational training	46	28	8	11	8	1	Net benefit more common
Internships & apprenticeships	24	13	2	8	5	1	Net benefit more common
Life skills training	28	14	5	11	6	2	*Cannot disaggregate*
Employee mentoring	19	13	5	7	3	2	*Cannot disaggregate*
Wage subsidies	9	3		6	2		Small net benefit

Where a 'standalone' meta-analysis for a single intervention was conducted, cost information may be available. In the first version of the Toolkit, this is the case for wage subsidies; in future iterations, we will include information where it is available.

A further complication arises from the programmatic delivery of many youth employment interventions. The same issue that makes it difficult to disaggregate the effect sizes for individual components applies to identifying the costs (or cost/benefit relationship) for different elements of a programme. Where information about cost is included, this is offered at the level of the programme only. Because the costs of different elements will vary depending on a variety of factors (see below), it would be complicated (if not impossible) to use an NMA approach to separate these out, and attempting to do so would involve numerous and potentially problematic, assumptions.

The costs of interventions of the same broad type can vary considerably depending on duration, intensity, and approach to delivery. For example, a 'life skills' programme might involve a small number of self-guided sessions using an online package *or* a two-week dedicated programme taught face-to-face by expert staff. An on-the-job training programme can last between six weeks and nine months. An exploration of the costs associated with some of the 'simpler' interventions in the first version of the Toolkit found variations so great that identifying an average figure was unlikely to yield useful findings. Variations in approaches to delivery mean that even an hourly cost cannot reliably be calculated.

Finally, the costs and benefits of each intervention *to each of the four stakeholder groups* addressed in the Youth Employment Toolkit may vary considerably. Interventions may be funded by a single agency or provider, or multiple partners may invest (in cash or resources) in the same programme. For example, an on-the-job training programme with a preparation element could receive investment of different kinds from central or local government, employers, grant makers and community groups.

The cost rating

Many youth employment interventions are delivered in partnership, and effective implementation needs different types, numbers and intensities of input from diverse stakeholders. In the first version of the Youth Employment Toolkit, a three-value descriptive scale. This is based on an analysis of a 'theory of change' for each intervention. The inputs that are typically required in the implementation of each intervention (where it is implemented well) were examined alongside the following checklist:

- **How *many* inputs?** The rating is higher where there are multiple inputs.
- **How long are they required for?** The rating is higher when inputs include elements of continuous oversight or assessment, or ongoing activities.
- **Who provides them?** The rating is higher when inputs come from multiple sources, e.g. central government, employers, education providers.

- **Do they need particular expertise or specialisms?** The rating is higher when an intervention includes a need for expertise or specialist advice.
- **Where is the intervention delivered?** The rating is higher when the intervention may involve specialised equipment or settings.
- **Are they required only for this intervention?** The rating is higher when the intervention inputs can't easily be combined with those required for other activities or business as usual.

This provides prompts for Toolkit users as they consider intervention costs and other inputs. It is flexible enough to let users analyse their specific contexts and to factors such as planned programme length and intensity, etc. Listing inputs also means that different stakeholder groups can focus on those that are most relevant to their roles and contexts.

Process and contextual information

Process evaluation findings are included, where practical, in 'standalone' REAs. In the first version of the Toolkit, this is the case for the review of wage subsidies.

The CNMA approach does not lend itself to qualitative or process analysis. Youth Futures staff gathered information on implementation and processes from the original studies in the CNMA, where this was included. In some cases, published process evaluations that accompany the impact evaluations used in the NMA were identified. Process information was noted using the template below, and two reviewers independently examined each study for process information.

Youth Futures staff also conducted some additional literature searches to extend the body of process information, and provide context for the findings of the CNMA. The primary source of supplementary literature was the Youth Employment Evidence and Gap Map (White and Apunyo, 2021). Some additional searches were conducted using search terms specific to the intervention. A full list of the sources used is presented in the technical report for the CNMA.

Figure 5: Process information template

Study Title:

Author(s) and date:

Interventions in the programme:

Intervention title:

Intervention aim:

Age range:

Demographic information (participants):

Duration of intervention:

Process & effectiveness factors:

Effective: Yes | No

Residential: Yes | No

Updating the Toolkit

The Youth Employment Toolkit is a live resource, which will be regularly updated. We plan our first brief update in autumn 2023 (adding one intervention), with a more extensive update in 2024. Updates will:

- Add new interventions, following feedback from users of the first version of the Toolkit and other stakeholders.

- Update the initial set of topics, as new evidence emerges.

- Revise the design and functionality of the Toolkit as we learn more about how different stakeholders use it.

References

Brydges, C. (2019). Effect size guidelines, sample size calculations, and statistical power in gerontology. *Innovation in Aging*. 3 (4). https://academic.oup.com/innovateage/article/3/4/igz036/5560156

De Giorgi, G. (2005). The new deal for young people five years on, *Fiscal Studies*, 26 (3).

Furukawa, T.A. & Leucht, S. (2011). How to Obtain NNT from Cohen's d: Comparison of Two Methods. *PLOS ONE* 6 (4): e19070.

Garritty, C., Gartlehner, G., Nussbaumer-Streit V, King VJ, Hamel C, Kamel C, Affengurber L, Stevens A (2021), 'Cochrane rapid reviews methods group offers evidence-informed guidance to conduct rapid reviews', *Journal of Clinical Epidemiology*, Vol. 130

Harrer, M., Cuijpers, P., Furukawa, T. & Ebert, D. D. (2019). dmetar: Companion R Package For The Guide 'Doing Meta-Analysis in R'. R package version 0.0.9000. URL http://dmetar.protectlab.org/.

Kluve, J., Puerto, S., Robalino, D., Romero, J.M., Rother, F., Stöterau, J., Weidenkaff, F. & Witte, M. (2017). *Interventions to improve the labour market outcomes of youth: a systematic review*. Campbell Collaboration

Kraft, A. M. (2020). Interpreting effect sizes of education interventions. *Educational Researcher* 49(4): 241-253

Nakagawa, S., Noble, D.W.A., Senior, A.M. & Lagisz, M. (2017). Meta-evaluation of meta-analysis: ten appraisal questions for biologists. *BMC Biology*15:18, DOI: 10.1186/s12915-017-0357-7

Newton, B., Nancarrow, A., Ott, E. & Rowland, J. (2022). *The impact of wage subsidies on youth employment*. Research protocol. OSF. https://osf.io/5yzr8/?view_only=e1b9c481bec04d35a42f784bdd6ef99f

Newton, B., Sinclair, A., Tyers, C. & Wilson, T. (2020). *Supporting disadvantaged young people into meaningful work: An initial evidence review to identify what works and inform good practice among practitioners and employers.* Youth Futures Foundation. https://youthfuturesfoundation.org/wp-content/uploads/2020/04/v14-IES-evidence-review-FINAL.pdf

Ott, E., Taylor, D., Rowland, J., Nancarrow, A. F., Newton, B., Featherston, R., & Shlonsky, A. (2022). *Protocol for a network meta-analysis of employment and skills programmes and interventions designed to assist young people to enter the labour market in high income countries.* OSF. https://doi.org/10.17605/OSF.IO/J63QT

Petropoulou, M., Salanti, G., Rücker, G., Schwarzer, G., Moustaki, I. & Mavridis, D. (2021) A forward search algorithm for detecting extreme study effects in network meta-analysis. *Statistics in Medicine*. 40 (25): 5642-5656

Plonsky, L. & Oswald, F. (2014). How big is 'big'? Interpreting effect sizes in L2 research. *Language learning*. 64 (4): 878-912
Puerto, S., Curcio, C. & Bausch, J. (2022). *The impact of active labour market programmes on youth. An updated systematic review and meta-analysis.* International Labour Organization

Saran, A., White, H. & Kuper, H. (2020), Evidence and gap map of studies assessing the effectiveness of interventions for people with disabilities in low- and middle-income countries. *Campbell Systematic Reviews.* 16 (1).

Tsokani, S., Seitidis, G., & Mavridis, D. (2022). Component network meta-analysis in a nutshell. *BMJ Evidence-Based Medicine*, bmjebm-2021-111906. https://doi.org/10.1136/bmjebm-2021-111906

Wasserstein, R.L. & Lazar, N.A. (2016). The ASA statement on *p*-Values: Context, process and purpose. *The American Statistician*. 70 (2): 129-133.

White, H., & Apunyo, R. (2021). *The effectiveness of interventions to increase youth employment: An evidence and gap map*. Youth Futures Foundation.

White, H., Saran, A., Verma, A., Oprea, E., & Babudu, P. (2022). *Evidence and Gap Map of Interventions to Prevent Children Getting Involved in Violence: Technical Report on the First Edition*. Youth Endowment Fund & Campbell Collaboration. https://youthendowmentfund.org.uk/wp-content/uploads/2021/02/YEF-Evidence-and-Gap-Map-Technical-Report-FINAL.pdf

White, H., Katairo, T. & Apunyo, R. (2021). *The effectiveness of interventions to increase youth employment: An evidence and gap map*. Youth Futures Foundation. https://youthfuturesfoundation.org/wp-content/uploads/2022/05/Youth-Futures-Evidence-and-Gap-Map-Technical-Report-Updated-May22-1.pdf

Wilson, D., Tanner-Smith, E. & Mavridis, D. (2016). *Network meta-analysis*. Campbell Methods Policy Note 1. Campbell Collaboration. https://www.campbellcollaboration.org/images/Campbell_Methods_Policy_Note_on_Network_Meta-Analysis_Wilson7_Tanner-Smith_Mavridis.pdf

Annex 1

Impact estimates, evidence strength ratings and cost ratings for interventions in the first version of the Toolkit

	Impact rating	Evidence strength rating	Cost rating	Notes
Apprenticeships	[High]	Low	High	This finding is based on only 2 studies.
Basic skills	Low/no	Moderate	Low	
Coaching / mentoring	Low	Moderate	Moderate	
Life skills	Low	Moderate	Low	
Off-the-job training	Moderate	Moderate	High	
On-the-job training	Moderate	Low	High	
Wage subsidies	Low	Low	High	

Additional impact estimates for combinations of components that emerge as having a potentially high impact

	Impact rating	Evidence strength rating	Cost rating	Notes
On-the-job training + another component	High	Low	High	
Basic skills + off-the-job training + another component	High	Low	High	
On-the-job training alone	High	Low	High	Caution due to high I^2 rating
Life skills + coaching/mentoring + another component	High	Low	Moderate	Caution due to high I^2 rating
On-the-job training alone	High	Low	High	

Additional impact estimates for interventions with young people who face additional barriers

	Impact rating	Evidence strength rating	Cost rating	Notes
On-the-job training	High	Low	High	
Off-the-job training	High	Low	High	