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## **Title Registration for a Systematic Review: Post-basic technical and vocational education and training (TVET) interventions to improve employability and employment of TVET graduates in low- and middle-income countries**

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### **Lead reviewer:**

Name: Janice Tripney

Title: Research Officer

Affiliation: EPPI-Centre, Social Science Research Unit, Institute of Education,  
University of London

Address: 18 Woburn Square

City, State, Province or County: London

Postal Code: WC1H 0NR

Country: United Kingdom

Phone: 020 79115334

Email: [j.tripney@ioe.ac.uk](mailto:j.tripney@ioe.ac.uk)

### **Co-author(s):**

Name: Mark Newman

Title: Reader in evidence informed policy and practice

Affiliation: EPPI-Centre, Social Science Research Unit

Address: 18 Woburn Square

City, State, Province or County: London

Postal Code: WC1H 0NR

Country: United Kingdom

Phone: 020 76126575

Email: [m.newman@ioe.ac.uk](mailto:m.newman@ioe.ac.uk)

Name: Paul Atherton

Title: Lecturer in economics of education

Affiliation: Department of Quantitative Social Science, London International  
Development Centre, Institute of Education, University of London

Address: 36 Gordon Square

City, State, Province or County: London

Postal Code: WC1H 0PD

Country: United Kingdom

Phone: 020 76125427

Email: [p.atherton@ioe.ac.uk](mailto:p.atherton@ioe.ac.uk)

Submitted to the Coordinating Group of:

- Crime and Justice
- Education
- Disability
- International Development
- Social Welfare
- Other:

Plans to co-register:

- No
- Yes
- Cochrane
- Other
- Maybe

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## TITLE OF THE REVIEW

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Post-basic technical and vocational education and training (TVET) interventions to improve employability and employment of TVET graduates in low- and middle-income countries

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## BACKGROUND

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### The problem

Both developed and developing nations are faced with the demands of a rapidly changing, more globally competitive world. Major forces, including advances in information and communication technology (ICT), the introduction of new manufacturing processes, and increased competition due to trade liberalisation, are driving change in the world of work. Skills intensification and an increase in the demand for higher order skills and productivity have initiated a shift in emphasis towards post-basic education and the return of technical and vocational education and training (TVET) to the international agenda (King and Palmer, 2010). Many recognise the important role that TVET plays in equipping individuals with relevant skills and knowledge, enabling people to respond to new employment opportunities. The latest UNESCO Global Monitoring Report highlights the policy importance now being placed on higher order skills and the central place they play in the global knowledge-based economy, both with regard to economic growth and poverty reduction (UNESCO, 2010a). Over the past decade, TVET has become a key area for investment in many developing countries. Indeed, many TVET initiatives have been implemented, supported by international organisations such as the International Labour Organisation. A great diversity of TVET models can be found worldwide; differences exist between and within countries. It is not clear, however, which models work, for whom and in what circumstances. Numerous studies assessing the impact of TVET initiatives on different labour market outcomes have been conducted, including a body of literature conducted in low- and middle-income countries. There are a number of reviews in this area (for example, Betcherman et

al., 2004; Palmer et al., 2007); however, as far as we are aware, no systematic review on the effectiveness of TVET in developing countries has been published to date. Given this gap in the evidence base, it is timely for researchers to synthesise the relevant available evidence.

## **The population**

Participants will have the following characteristics:

- *Geographical location*: From low- or middle-income countries (as defined by the World Bank)
- *Age*: Young people receiving post-basic education and/or training (defined here as those aged 15 - 24 years)
- *Gender*: Male or female
- *Target group*: Any target group:
  - i. Any employment status at time of service receipt (not in paid employment or in paid full- or part-time employment)
  - ii. Any skills level, any prior experiences/achievements and level of qualification.

## **The intervention**

Post-basic technical and vocational education and training (TVET) interventions will be eligible for the review.

TVET is concerned with the acquisition of knowledge and skills for the world of work. This review will follow UNESCO's definition of TVET: "...a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupants in various sectors of economic and social life" (UNESCO, 2010b).

All TVET models are eligible for this review. Interventions with the following characteristics will be included:

- Technical education, vocational education, vocational training, on-the-job training, apprenticeship training (see below for further details);
- Formal and non-formal forms of learning/types of learning arrangements;
- All modes of delivery/study: e.g., online, face-to-face, distance learning, apprenticeship;
- All types of settings: e.g., schools, colleges, apprenticeship training centres, worksites, other private enterprises;
- All types of provider/regulator: public (e.g., government-funded schools and training centres); private (e.g., companies, churches, non-government organisations, private colleges) and traditional (e.g., craft guilds)
- TVET offered at secondary and post-secondary levels (focus will be on young people aged 15 – 24 years);

- TVET delivered for any length of time or frequency.

*Technical education:* theoretical vocational preparation of students for jobs involving applied science and modern technology; compared to vocation education (which focuses on the actual attainment of proficiency in manual skills) technical education emphasises the understanding of basic principles of science and mathematics and their practical applications; delivered at (usually) upper secondary and lower tertiary levels to prepare students for occupations that are classified above the skilled crafts but below the scientific or engineering professions.

*Vocational education:* organised activities designed to bring about learning as preparation for jobs in designated (manual or practical) trades or occupations; traditionally non-theoretical and focused on the actual attainment of proficiency in manual skills; usually considered part of the formal education system and thereby falling under the responsibility of the Ministry/Department of Education.

*Vocational training:* prepares learners for jobs that are related to a specific trade or occupation, but (compared to vocational education) is better linked to the labour market and employment development system, and therefore usually falls under the responsibility of the Ministry/Department of Labour/Employment.

*On-the-job training:* workplace-based training that uses real jobs as a basis for instruction and for practical purposes.

*Apprenticeship training:* combines on-the-job training for a highly skilled craft or trade (from someone who is already a skilled leader in the field) with academic/theoretical instruction; also called dual-training programmes.

The following comparison conditions are relevant: no intervention; treatment as usual; alternative intervention.

### **The outcomes:**

- *Outcomes relating to a change in **employment status**:*
  - gaining initial, maintaining, or obtaining new full- or part-time paid employment;
  - self-employment (starting a new business or expanding one)
  - working hours
  - earnings/wages/income
- *Outcomes relating to a person's **employability**:* i.e., the capability of gaining initial employment, maintaining employment, and/or obtaining new employment if required (Hillage and Pollard, 1998). Includes, but not limited to:
  - skills/knowledge/competences

- qualifications
- job search skills
- motivation to find paid employment
- job applications
- job interviews
- work attitudes

At present it is not fully clear what the concept of employability will look like in countries with poor labour markets. This issue will be tackled when developing the protocol.

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## **OBJECTIVES**

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To systematically review the literature on the effectiveness of different models of post-basic technical and vocational education and training (TVET) interventions on the employability and employment of TVET graduates in low- and middle-income countries, and investigate whether this varies by gender

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## **METHODOLOGY**

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### **Inclusion criteria:**

Studies will be included if:

1. Conducted in a low or middle-income countries (as defined by the World Bank);
2. Published in 1990 or after;
3. Evaluated a post-basic TVET intervention (broadly defined, see above);
4. Participants are young people (aged 15 – 24 years);
5. Measured change in employment status or employability (see above);
6. Used an experimental or a quasi-experimental design, where intervention outcome is assessed against an explicit counterfactual (to include econometric evaluations using administrative/historical data to create a credible counterfactual).

### **Exclusion criteria:**

Studies will be excluded if:

1. Conducted in a high-income country (as defined by the World Bank);
2. Published before 1990;
3. Did not evaluate a TVET intervention. *Exclude, for example:*
  - (a) *evaluations of labour market programmes where the focus is not on vocational education or training, such as those:*

*-offering financial subsidies*

*-assisting with job searching*

*-promoting self-employment by providing technical assistance*

4. Participants are not young people (aged 15 – 24 years);
5. Did not measure change in employment status or employability (see above);
6. Did not use an appropriate comparison group design (see above).

### **Method of synthesis:**

If possible, quantitative results from comparative impact studies will be combined using statistical meta-analysis. It is likely that a random effects model will be used to combine the individual study effect sizes to produce the pooled estimates and that heterogeneity will be examined both visually by examining forest plots and statistically by using the  $\chi^2$  test and  $I^2$  test for consistency (Higgins et al., 2003). A subgroup analysis will be carried out (on the criteria specified in the protocol) to attempt to explain any such heterogeneity. Where statistical meta-analysis is not possible, a 'vote counting' approach may be an appropriate alternative method for synthesising quantitative findings.

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## **SOURCES OF SUPPORT**

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### **Internal funding:**

Institute of Education

### **External funding:**

Australian Department for International Development

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## **DECLARATIONS OF INTEREST**

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None

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## **REQUEST SUPPORT**

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No

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## **ROLES AND RESPONSIBILITIES**

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- Content: Janice Tripney, Mark Newman
- Systematic review methods: Janice Tripney, Mark Newman
- Statistical analysis: Janice Tripney, Mark Newman, Paul Atherton
- Information retrieval: Janice Tripney

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## PRELIMINARY TIMEFRAME

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Approximate date for submission of Draft Protocol: August 2011

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## REFERENCES

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