

# Vocational Training Programmes in Low- and Middle-Income Countries: Insights from Experimental Studies

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Vocational training (VT) programmes aim to provide participants with the skills needed for employment in specific sectors. By matching the skills taught to those sought by employers, they seek to generate increased job stability, higher income potential and improved employment prospects. Obtaining formal certification or a diploma from such programmes can serve as a reliable signal to employers that trainees possess the necessary skill sets, thereby enhancing their employability. This is particularly important for youth, given that globally in 2020, approximately 22.4 percent of individuals aged 15-24 were not in education, employment or training (NEET) (ILO/SIDA, 2023). This brief summarises findings from 33 randomised evaluations of VT programmes, shedding light on their effectiveness, varied impacts, promising approaches, and gender-related

considerations. Our focus is on VT programmes geared toward imparting skills and knowledge essential for specific job roles. The brief does not examine evaluations of business training programmes, an important alternative approach to increasing employment through imparting entrepreneurship and management skills.<sup>1</sup>

## Mixed Efficacy Outcomes Across the Board

VT programmes hold the promise of equipping participants with valuable skills, enriching both their technical and cognitive abilities. Extensive research consistently demonstrates that individuals who engage in such programmes exhibit markedly improved skills when compared to those who have not undergone such training (Acevedo et al., 2018; Alfonsi et al., 2020; Alzua



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<sup>1</sup> For in-depth information on business training and the evidence available, please refer to JPAL dedicated [Policy Insight](#).

et al., 2016; Aramburu et al., 2021; Cho et al., 2013; Crepon and Premand, 202; Field et al., 2019; Hardy et al., 2019; McIntosh and Zeitlin, 2022; Schochet et al., 2008). In general, individuals completing on-the-job training demonstrate improvements in reading, mathematical, computing, and industry-specific skills when compared to their non-trained counterparts (Hardy et al., 2019).

VT programmes however have mixed success in shifting labour market outcomes for participants. There is significant variation in their impacts over the short and long term, raising questions about the effectiveness of these costly interventions. A majority of evaluated programmes failed to yield immediate improvements in employment rates or earnings. Strikingly, twenty of the assessed programmes exhibited at least one negative or negligible effect on an outcome for the intervention group right after completing the training (Acevedo et al., 2018; Alfonsi et al., 2020; Attanasio et al., 2011; Aramburu et al., 2021; Atkin et al., 2021; Barrera-Osorio et al., 2020; Chakravorty et al., 2021; Cho et al., 2013; Crepon and Premand, 2021; Das, 2021; Diaz and Rosas, 2016; Field et al., 2019; Hicks et al., 2016; Hirshleifer et al., 2016; Honorati, 2015; McIntosh and Zeitlin, 2022; Osman and Speer, 2022; Rosas et al., 2017; Shonchoy et al., 2018; Schaberg, 2017). In the short term, spending time in VT can divert participants' time and resources from potentially more lucrative activities, thereby incurring an opportunity cost in addition to direct training expenses.

In the long term, the evidence remains mixed. For example, in Colombia, a combination of classroom training and on-the-job training resulted in higher formal earnings, with an average increase of about 12 percent compared to those in the comparison group,

several years after the programme concluded (Attanasio et al., 2017). However, in other studies, programme effects diminished over time, and the reasons behind this trend are not entirely clear. Some studies have attempted to explore this dynamic impact. In Uganda, individuals undergoing VT initially experienced lower employment rates compared to those receiving training directly at firms. Yet, in the long term, the employment rates of vocational trainees surpassed those of firm-provided trainees. This dynamic impact was attributed to the VT programme's certification of skills: vocational trainees acquired more certifiable skills, and if they were unemployed, they were better positioned to reintegrate into the workforce compared to firm apprentices (Alfonsi et al., 2020).

Experimental evaluations provide evidence on the varying effect on short and long term outcomes of vocational training programmes

Another valuable insight into the effectiveness of VT programmes underscores the role that participants' expectations play in either improving or harming labour market outcomes (Bandiera et al., 2023; Bassi and Nansamba, 2022; Chakravorty et al., 2021; Kelley et al., 2022). In Uganda, individuals who took part in a VT programme that included soft skills certification experienced a boost

in their confidence regarding future employment prospects and earnings, prompting them to shift their labour allocation towards more efficient activities (e.g., moving away from low-paying casual labour). This translated into higher earnings two years after the intervention (Bassi and Nansamba, 2022). However, there are instances where increased expectations had negative effects. In India, providing access to a platform containing real-world employer information had unexpected consequences. Jobseekers registered on the portal were less likely to secure employment for at least one year compared to the comparison group. Researchers interpreted this as evidence of voluntary unemployment: jobseekers had initially overestimated the portal's effectiveness, leading them to increase their reservation wage and reduce their engagement in job-seeking activities. Yet, as they received more accurate information about actual job offers, they adjusted their misconceptions and resumed their job search efforts (Kelley et al., 2022).<sup>2</sup>

There are promising strategies that seem poised to enhance the effectiveness of vocational training initiatives

While additional research is needed to gain a comprehensive understanding of the varying effects of interventions in the short and long term, as well as how to effectively manage expectations, there is promising evidence concerning the factors influencing youth employment and wage earnings. We first outline below the conditions under which VT programmes are more likely to generate substantial impacts on participants' employment and income, before delving into gender-specific considerations. We have highlighted the most representative case studies in italics under the insights below for readers interested in exploring these examples in more depth.

## Gleanings from Experimental Research

**VT programmes that pair hard-skills and soft-skills components may be more successful.** The inclusion of soft skills training alongside technical instruction has resulted in favourable employment outcomes. There is preliminary evidence indicating that programmes integrating both hard and soft skills may be the most effective in enhancing employment outcomes, particularly over the long term.

*In Egypt, a training programme that encompassed both hard and soft skills demonstrated better employment outcomes after 18 months compared to programmes focusing on either hard or soft skills alone (Osman and Speer, 2022).*

*In Colombia, soft-skills training contributed to the sustained employment and monthly wages*

<sup>2</sup> These findings are consistent with research on [job search](#), which suggests that job seekers' level of optimism and expectations play a role in their job search.

over an extended duration. Nevertheless, the authors observed that the impact on earnings was more pronounced among men than women, and they posited that women might encounter additional obstacles, such as a lack of childcare, which hindered them from fully capitalising on their new skills (Barrera-Osorio et al., 2020).

**Incorporating practical experience has emerged as a promising and effective approach.** The integration of classroom-based technical training with practical experience, such as apprenticeships, has consistently yielded positive results by bolstering labour supply and elevating earnings for participants. This approach serves to diminish information barriers while enhancing the quality of matches between trainees and employers. Trainees gain insight into the sector's requisite skills and other pertinent factors, as evidenced by many studies (Atkin et al., 2021; Attanasio et al., 2017; Crepon and Premand, 2021; Diaz and Rosas, 2016; Elsayed et al., 2018; Honorati, 2015; Shonchoy et al., 2018).

*In Kenya, young male participants in a private sector labour force programme were found to be 15 percent more likely to secure employment compared to those who did not receive the programme. However, the results for women were inconclusive, primarily because of significant attrition during the endline survey. The programme included life skills training, sector-specific training, and a three-month internship in the private sector (Honorati, 2015).*

**However, offering purely on-the-job programmes, without in-classroom training, displayed variability.** Among the four programmes that exclusively offered on-the-job programmes, two exhibited positive effects on

employment and earnings while the other two had negative or null effects (Alfonsi et al., 2020; Cho et al., 2013; Das, 2021; Hardy et al., 2019).

*In Bangladesh, an evaluation of on-the-job training found that it led to a 35 percent increase in labour market participation and a 23 percent boost in earnings after six months. Although the employment benefits diminished over time, the positive effect on earnings was maintained due to a transition from casual work to wage employment. The increase in employment was particularly pronounced for women, as they shifted from casual work to self-employment. Adding classroom training yielded no significant impact in the short term, but there is suggestive evidence that it generated more sustained effects on employment (Das, 2021).*

*In Ghana, however, apprenticeship training within small firms led to negative effects on the earnings of participants one year after completing the programme. While the training equipped participants with new skills and motivated them to shift from wage employment to self-employment, especially among women, this transition led to a reduction in wage earnings without a significant increase in self-employment earnings (Hardy et al., 2019). These findings align with the prevailing understanding that apprenticeships often entail a trade-off, as young individuals may need to forego other activities offering higher wages while engaging in these programmes.*

**Alleviating information barriers through mentoring, counselling, or facilitating connections with real-world employers has consistently produced improved employment outcomes across various scenarios.** A lack of knowledge about

labour market opportunities and connections to hiring firms is one critical obstacle to employment, particularly for young job seekers. The provision of career counselling or mentoring, alongside referrals to actual employers, in addition to training, yielded enhanced employment outcomes in four out of six evaluations (Acevedo et al., 2018; Alfonsi et al., 2023; Atkin et al., 2021; Bandiera et al., 2023; Elsayed, Hempel and Osman, 2018; Schochet et al., 2008).

*In Uganda, successful young workers who had previously completed a VT programme served as mentors for trainees. Those who received mentorship experienced a 27 percent increase in their likelihood of securing employment within three months after graduation and observed an 18 percent boost in earnings after one year, in comparison to the comparison group. Mentorship predominantly improved outcomes by providing valuable insights into entry-level jobs and labour market dynamics, rather than through direct job referrals, vacancy information, or search tips (Alfonsi et al., 2023).*

**There is some evidence that trainers of exceptional quality can significantly influence participants' skill development and earnings.**

*In Ghana, the earnings of participants involved in an on-the-job training programme varied depending on the quality of their trainers. Notably, individuals mentored by more experienced or successful small business owners achieved higher earnings in comparison to those trained by less experienced or less profitable mentors. This highlights the crucial significance of trainer quality in shaping the outcomes of the programme (Hardy et al., 2019).*

**There is suggestive evidence that private sector involvement in designing or providing VT programmes positively affects participants' employment and earnings outcomes.**

*A review of VT programmes in Latin America found that these programmes achieved greater success when the private sector was involved in designing the curriculum (J-PAL, 2017).*

*In Turkey, an evaluation of the national employment agency's training initiatives showed that their effect on short-term employment was most pronounced when courses were delivered by private providers who were both motivated and equipped to align with market demands. Twelve months after the training, private courses exhibited a 4 to 6 percentage-point greater increase in employment compared to their public counterparts (Hirshleifer et al., 2016)*

**Pairing training with cash transfers for participants may boost their effectiveness.**

Credit constraints frequently acted as barriers preventing participants from enrolling in or completing training programmes. The addition of cash transfers appeared to amplify the effectiveness of these programmes. In specific cases, providing financial support helped enhance training effectiveness by compensating for lost income and facilitating transportation (Crépon and Premand, 2021; McIntosh and Zeitlin, 2022; Shonchoy et al., 2018).

*In Côte d'Ivoire, a government initiative that offered youth an apprenticeship, VT, and a subsidy had a significant effect on youths' decision to take up apprenticeships. The subsidy played a crucial role in mitigating the substantial*

*income loss typically associated with low apprenticeship wages. However, researchers did not find any evidence indicating that addressing lost earnings alleviated the underlying credit constraints faced by the participants (Crépon and Premand, 2021).*

## **Tackling Gender-Specific Challenges**

It is crucial to emphasise that VT programmes tailored to address gender-specific barriers can have a profound impact on women's empowerment. Women often face multiple obstacles to success in VT, including aspects related to the programme content, access issues such as lack of capital, and social factors, including family and community obligations.

Programmes designed to specifically target these gender-related obstacles can offer significant support to women. Among seven programmes evaluated that were either exclusively tailored for women or incorporated an element focused on empowerment, like personal coaching or soft skills training, all of them yielded improved labour market outcomes for women (Acevedo et al., 2018; Aramburu et al., 2021; Atkin et al., 2021; Attanasio et al., 2011; Cheema et al., 2019; Honorati, 2015; Maitra and Mani, 2017).

*In the Dominican Republic, a VT programme that provided training in soft skills benefited women more than men. Women who participated had higher self-esteem, were more optimistic, and displayed higher levels of personal skills in the long run (Acevedo et al., 2018).*

*In Kenya, women who received two weeks of soft-skills training followed by six months of VT experienced*

*significant increases in earnings (Honorati, 2015).*

The same external factors, including limited access to capital and various access constraints, can also significantly influence women's decision to participate in training.

*In Pakistan, the establishment of a training centre within a village led to a rise in course enrolment and completion rates. Conversely, requiring individuals to travel to a different village for training posed a substantial access barrier, as it would have consumed approximately half of households' average monthly income to cover the associated travel expenses. Offering group transport options notably enhanced access, especially for women who were concerned about crossing sparsely populated areas between villages due to safety concerns (Cheema et al., 2019).*

## **Areas for Future Research**

Future research on the effectiveness of VT programmes in low- and middle-income countries will be critical in shedding light on how these countries can harness their demographic potential and transform it into increased economic growth. New evaluations will deepen our understanding of how to optimise the effectiveness of training programmes, how to extend or smoothen their impacts on labour outcomes over time, and how to meet the needs of women and youth in particular.

One primary area for new research lies in trying to identify the factors that lead to successful outcomes over both the short and long term. Another area involves better understanding how to generate complementarity between

hard-, soft- and socio-emotional skills components to support better labour market outcomes. Generating more evaluations of soft skills trainings with varied durations and content and exploring their impact for different demographic groups could also help identify which training components are most important for women, youth, disabled individuals, or those from low-income backgrounds. Exploring optimal approaches for implementers of soft skills training to ensure long-lasting impact and strategies for scaling up these initiatives are essential research areas for advancement.

cases where certain industries actively seek qualified workers in traditionally male-dominated roles, women could significantly expand their opportunities by acquiring skills in these sectors. Investigating how to efficiently train and connect women with such opportunities while mitigating entry barriers such as hiring discrimination and a lack of job information presents an intriguing and essential avenue for further research.

Further research is imperative to elucidate the most suitable programme formats for both youth and women

Other crucial avenues warrant exploration. Prioritising the delivery of tangible results for women and youth stands as a key imperative. Recognising mental health as a potential barrier to the educational and employment prospects of youth is equally vital. Employing innovative approaches that integrate VT with components designed to address issues like anxiety, low self-esteem, and the fear of failure could enhance the effectiveness of training programmes and subsequently improve labour market outcomes. Furthermore, future research must underscore the pivotal link between job training initiatives and market demand, ensuring the successful integration of trainees. In

## Based on

This brief is partially based on the J-PAL Policy Insight on “Vocational and skills training programmes to improve labor market outcomes,” co-authored by Victoire Fribourg, Simon Cooper and Natalie Valent, updated in March 2023. Link: <https://www.povertyactionlab.org/policy-insight/vocational-and-skills-training-programs-improve-labor-market-outcomes>

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