



COMMONWEALTH *of* LEARNING



POLICY BRIEF

Creating New Opportunities
for Women and Girls:
Enhancing **Women's and Girls'**
Success in Technical
and Vocational Education



The Commonwealth of Learning (COL) is an intergovernmental organisation created by Commonwealth Heads of Government to promote the development and sharing of open learning and distance education knowledge, resources and technologies.

© 2020 by Commonwealth of Learning.



Policy Brief – Creating New Opportunities for Women and Girls: Enhancing Women’s and Girls’ Success in Technical and Vocational Education is made available under a Creative Commons Attribution-ShareAlike 4.0 Licence (international): <http://creativecommons.org/licenses/by-sa/4.0>.

For the avoidance of doubt, by applying this licence the Commonwealth of Learning does not waive any privileges or immunities from claims that they may be entitled to assert, nor does the Commonwealth of Learning submit itself to the jurisdiction, courts, legal processes or laws of any jurisdiction.

Author: Salasan Consulting Inc.

Editor: Frances J. Ferreira, *Education Specialist, COL*

Published by:

COMMONWEALTH OF LEARNING

4710 Kingsway, Suite 2500

Burnaby, British Columbia

Canada V5H 4M2

Telephone: +1 604 775 8200

Fax: +1 604 775 8210

Web: www.col.org

Email: info@col.org

POLICY BRIEF
Creating New Opportunities
for Women and Girls:
Enhancing Women's and Girls'
Success in Technical
and Vocational Education



COMMONWEALTH *of* LEARNING



Executive Summary

The empowerment of women and girls through Technical and Vocational Education and Training (TVET) gives them an opportunity to acquire job-related skills for meaningful employment, a key contribution to poverty reduction. Governments are therefore acting to improve women's and girls' enrolment in TVET courses, which have been primarily male-dominated. However, there are multiple barriers to girls' access to TVET, including negative attitudes about TVET, financial constraints, and a male-oriented perspective in pedagogy, curricula and learning materials.

Increasing women's and girls' participation rates in employment-related skills training is critical for their economic empowerment. Policy-makers need to consider gender-responsive approaches to improve women's and girls' retention and success in TVET. Introducing gender-sensitive

communications and counselling at the pre-training stage is effective in supporting women's aspirations and addressing negative attitudes. Creating an environment in technical/vocational institutions that demonstrates constructive attitudes towards women is an important first step. Appropriate infrastructure and gender-responsive pedagogical approaches are equally important. Female role models and mentors can support women's successful transition from TVET to employment. Identification of gender-responsive employers and gender-equitable workplace training opportunities increase trades and technical employment for women. Innovative approaches to TVET through open and distance learning (ODL), technology-enabled learning (TEL) and blended learning have significant potential to expand women's and girls' access to affordable quality training in transferable trades and technical skills.



“Increasing women’s and girl’s participation rates in employment-related skills training is critical for their economic empowerment.”



Introduction

The importance of TVET in contributing to both increased economic productivity and poverty reduction is increasingly recognized by governments, industry and employers, with a demonstrated correlation between enrolment in TVET at the post-secondary level and per capita income (ADB 2009).

Challenges in many TVET systems remain, including the need to respond to market and industry demand.

TVET is often the domain of multiple providers, including Ministries of Education at secondary and tertiary levels, public and private institutions, local governments and industry.

SDG 4, which promotes inclusive and equitable quality education and lifelong

learning opportunities for all, stresses the need for affordable, quality TVET. The need for both TVET and work-based learning that meets industry standards has been identified by educators and employers, but TVET systems and programmes need to be strengthened to increase enrolment, prepare their students for specific skills-based areas of work and enable them to gain employment. Providing TVET students with employment and entrepreneurial skills along with “soft” skills training in areas such as communication and problem-solving is essential for future employment and lifelong learning. Preparing young people for viable livelihoods is particularly important for women, who are overrepresented in the informal sector, and whose labour force participation rate is less than 40%, compared to 54% for young men (ILO 2017).



Overview of Existing Research and Evidence on Women and Girls in TVET

Girls' enrolment in TVET programmes remains low. 44% of the already limited number of girls at the senior secondary education level are enrolled in vocational programmes worldwide. (UNESCO 2016). That number decreases in developing countries. In sub-Saharan Africa, for example, only 2% of secondary school girls and just over 6% of secondary school boys are enrolled in TVET programs. (World Bank 2019). Even when girls enter TVET programmes, they select, or are guided into, areas such as hospitality or secretarial studies and their participation in technical skills programs such as electronics, masonry, carpentry, plumbing and auto mechanics remains low. These differences matter for future earnings. Industrial trades employment offers women their best opportunity at increasing their

labour market participation. Women who enter male-dominated sectors make three times more than women in female-dominated sectors. (ILO 2017)

Negative attitudes from girls and families about TVET are a major barrier to girls' entry into technical or trades training.

These include gender related issues, such as the role of girls in household labour and unpaid care work for their families. Financial constraints are a barrier for girls considering TVET and include fees levied by institutions, the requirement to purchase practical materials and the paucity of scholarships or bursary schemes for female TVET students. In developing countries, inadequate infrastructural facilities, lack of

quality resources and qualified lecturers are a cause for concern.



“An inherent gender bias in the trades translates into systematic under-promotion and under-exposure of trades to women and girls.”



Female students are also confronted with a male-oriented TVET environment. The low number of female instructors, an absence of female role models, gender-biased curriculum, and a masculine image projected in textbooks and media are significant barriers for women and girls. In low income countries, lack of physical facilities such as secure dormitories and women’s washrooms are an issue. Women want to see more

flexibility in selection, entry requirements and hours of instruction.

Bullying and sexual harassment are significant issues for women in many TVET institutions.

Concerns about employment

following technical and vocational course completion also prevent girls from entering TVET programmes. An inherent gender bias in the trades translates into systematic under-promotion and

under-exposure of trades to women and girls. (Gyarmati, D. et al 2017). Women entering the trades often start on an uneven footing compared to their male peers because of inadequate information about the trades. Once in employment, the male domination of industrial trades results in unwelcoming and non-inclusive environments. Labour market practices discriminate against women in recruitment, hiring, and advancement (ILO 2014).

Gender-based digital exclusion is an additional barrier to women’s and girls’ success in TVET. Issues of affordability, lack of education, computer skills and technological literacy all contribute to a “digital gender gap”. Gender bias and socio-cultural norms that give preference to boys and men in internet technology add to gender-based digital exclusion and the gender divide in internet use is widening in the least developed countries (OECD 2018).



Discussion and Analysis of Research Findings

National governments, including Ministries of Education, and Ministries of Women's Affairs, Labour and Employment have taken a number of initiatives to increase access to TVET for women and girls such as providing career counselling in schools, establishment of "Women in Technical Education"(WITED) departments in Ministries of Education and affirmative action programs to provide scholarships and other incentives for young women in TVET (ILO 2012). A number of lessons have emerged from the experience of promoting gender equality in TVET that can guide policy-makers:

Counselling, mentoring and positive role models are a critical factor for girls who are entering TVET. Globally, women report that their fathers were the major influence on their choice of training and occupation. Women who have a father with a trades certificate are more likely than other female apprentices to choose a male-dominated programme

(StatsCan 2019). Support from teachers and parents encourages young people to rethink inaccurate perceptions of girls in non-traditional occupations and to increase the interest of girls and young women in skills training.

Communications about TVET through promotional and advertising campaigns are valuable in shifting societal attitudes about women in TVET, combatting negative perceptions of the trades for women, and communicating accurately to women the benefits but also the realities of working in the trades. Advertisers and influencers play a major role in eliminating gender stereotypes and promoting a positive attitude towards skills training for women and girls (Santos and Rubiano-Matulevich 2019).

Gender-focused strategies to boost female participation rates in skills development programmes increase the numbers of



“The learning environment must be free from sexual harassment and bullying.”

women in TVET. Early marriage, restrictions on women’s mobility and a gender gap in proportion of time spent on domestic and unpaid work are all predictors of low TVET entry rates for girls. Apprenticeships, work-based learning, identification of gender-responsive employers and links with female mentors are effective approaches. For example, the Government of New Zealand’s Trades Academies are a useful model of success in delivering trades and technology programmes to secondary students based on partnerships between schools, tertiary institutions, industry training organizations and employers. They have motivated students to stay engaged in learning and training by: (i) providing them with a greater number of options for study; (ii) providing clear pathways by giving them a head start on training for vocational qualifications and access to employment; and (iii) improving the responsiveness of schools to business and economic needs. They have proven to be particularly effective with high-risk students, including girls, through the use of gender- and culturally-sensitive approaches to learning (GNZ Education Review Office 2015).

Recognizing women’s and girls’ needs in TVET institutions increases enrolment: Issues such as lack of confidence, social isolation and loneliness can be overwhelming for girls



in male-dominated institutions. The learning environment must be free from sexual harassment and bullying, with infrastructure such as separate women’s bathrooms, secure dormitories and flexibility in learning approaches and hours of instruction to accommodate women with children (ILO 2014).

Developing gender-sensitive TVET approaches is essential to women’s and girls’ learning outcomes: Gender-neutral curricula and textbooks that show pictures of both women and men increase women’s motivation to enter non-traditional skills training. Pedagogical approaches that are sensitive to women’s learning needs and increasing the number of female instructors will also improve learning outcomes for young women. Female mentors and role models offer positive perceptions of women in TVET for all students and staff. Scholarships and incentive packages that provide for costs such as childcare, health insurance and travel expenses increase enrolment of women and girls in skills training programmes. Training in both trades and technical skills and soft

“By adopting more inclusive and equitable approaches to ICT, including an increased focus on women’s and girls’ needs and priorities, TVET has the potential to be transformational in providing them with quality job-related education and training.”

skills, combined with other areas such as financial and entrepreneurial training, increases retention of female TVET students.

Enhanced, safer and more affordable access to digital tools is critical for women and girls:

National ICT policies and broadband plans can increase women’s and girls’ internet access and use. For example, women in Ghana are participating in digital training programmes through Universal Service and Access Funds (USAFs), communal public funds that expand internet connectivity and access. Nigeria has improved women’s digital skills through its National Broadband Plan, which monitors the number of women without access to the internet and offers incentives to civil society organizations and private education institutions to train women to use the internet (Web Foundation 2019).

Open and distance learning (ODL), technology-enabled learning (TEL) and blended learning has significant potential to expand women’s and girls’ access to affordable quality TVET: Learning models that combine onsite mastery of practical skills with online and distance learning offer women and girls flexibility and affordability, allowing them to continue their training while meeting their responsibilities in the home. Strategies that include virtual simulations and workplace learning combined with learning at home can address challenges of

acquiring practical skills. TEL has proven as effective as traditional methods of learning for cognitive development purposes and can also improve learning outcomes for women and girls by strengthening their self-directed learning capacity. The National Institute of Open Schooling (NIOS) in India demonstrates the effectiveness of online TVET for girls. In contrast to institutionally-based TVET programs, the proportion of female learners in NIOS vocational programs increased from 60.92 per cent in 2010-11 to 63.5 per cent in 2014. Source: (Mohapatra, B. and Mahapatra, S.K., 2016, Table 4).

ODL, TEL and blended learning approaches can facilitate women’s entry into the workplace: Through the adoption of information communications technology (ICT) combined with open and flexible learning approaches, women’s and girls’ participation in non-traditional occupational areas can be scaled up and costs reduced. Online skills training combined with employer and industry partnerships can benefit women and girls by reducing the barriers that they face in institutional TVET courses. As well, their learning outcomes can be enhanced through exposure to innovation and the diversity of approaches and models that have been developed and utilized in technology enabled learning (TEL) for TVET. By adopting more inclusive



and equitable approaches to ICT, including an increased focus on women's and girls' needs and priorities, TVET has the potential to be transformational in providing them with quality job-related education and training. The Australian Open Training Institute's Open2Study Programme is an example of a blended TVET approach that has particular benefits for women, girls and other vulnerable groups. It is offered through a partnership between the Open Training and Education Network (OTEN) and SEEK Learning (SKL), a course aggregator service that specialises in connecting adult Australians with career-related education, primarily online-based courses, and has a strong brand and high visibility. It is an example of how a TVET provider can capitalise on the concept of an ICT-based "informal–non-formal–formal learning continuum" by offering an entry-level Work Skills Course Outreach Certificate for young people, women returning to the workforce, mature students, people with disabilities and others who want to get back into education and employment (Latchem, C. -ed, 2017).

Innovations in ODL, TEL and blended learning for TVET during the COVID-19

pandemic will contribute to increased participation of women and girls in TVET and non-traditional trades. At the end of March 2020, for example, the Government of Kenya disseminated its "TVET Standard on Open, Distance and e-Learning" (ODEL) that captures and addresses issues, including gender equality, that are aimed at mainstreaming these forms of learning. The approach will use "traditional distance education by correspondence courses, e-learning and blended learning to open learning centres and face-to-face provision (of TVET) where a significant element of flexibility, self-study, and learning support is an integral part". The quality of ODeL programmes will be equivalent to those offered at TVET institutions. An initiative from the Directorate of Technical and Vocational Education in Afghanistan demonstrates that ODL/TEL can be implemented in challenging environments by disseminating TVET guidelines called "Alternative Education Scheme for Persistence of Corona Virus in the Country." The strategy combines distance learning with a combination of multimedia, video and print media, focused on using local solutions to avoid dependencies. (World Bank 2020)



Conclusions and Recommendations

Significant investment and capacity will be required from both government and industry to increase and sustain gender equality in TVET and employment, to increase women's voice and status within the male-dominated trades and technical areas, and to transform workplaces to be more welcoming for women. Current policies and initiatives are aimed at increasing access of women and girls to training and employment in the trades/technical sector. The next step must be to sustain their participation by:

Providing an enabling environment for women in TVET, technology and the trades that includes robust policies to promote participation of women and girls in the sector and to address their gendered priorities and needs;

Developing legal frameworks that enforce gender equity, eliminate gender-based discrimination and provide protection for women against bullying, harassment and gender-based violence; and

Implementing institutional policies and programmes that include identification and elimination of barriers that prevent women from entering TVET as well as recognition and promotion of incentives to retain women's participation in technical and trades training and employment, and resources to monitor and take action on persistent resistance to change.

Understanding and supporting young women's aspirations. Before taking steps to bring girls and young women into TVET, it is essential that families and educators understand what types of work young women consider dignified and fulfilling, giving them respect, safety, and a secure source of income. New initiatives to bring women and girls into TVET should be based on context-specific gender-based analysis. Gender analysis and gender-sensitive indicators must be used to monitor not only success of initiatives, but to provide learning about women in TVET.



Addressing negative attitudes about TVET and employment in the trades.

At the pre-training stage, prior to secondary education, or when making decisions about post-secondary training, government and industry can overcome negative attitudes about TVET and employment in the trades and technology by providing gender-sensitive materials and career counselling in schools and outreach to families to promote TVET. This should include advertising campaigns that show women and girls in TVET learning situations and in trades or technical jobs.

Taking action to increase the enrolment of girls and young women into TVET by:

- Addressing financial constraints through scholarships and bursaries, lower fees and user charges, other types of financial aid including subsidies or payments for training supplies;
- Addressing quality of resources at TVETs, including (i) Lack of infrastructure such as lack of a library, insufficient or poor quality of classroom blocks, workshops, laboratories and recreational facilities; and (ii) Lack of qualified lecturers, and a generally poor level of TVET funding; this would benefit all students and increase the quality of education for all;
- Fostering a gender-sensitive TVET environment, with actions such as increasing the number of female instructors, encouraging female role models, developing gender-neutral curriculum materials that are designed for both women and men, including

female images of TVET in textbooks and providing critical infrastructure;

- Implementing zero tolerance policies for sexual harassment from both instructors and male students in TVET institutions;
- Adopt more flexible teaching/learning approaches using online learning, radio, television and mobile messaging, that allow for women's and girls' household and child care responsibilities.
- Implement innovations to develop and deliver TVET: Flexible, blended delivery models that use ODL and TEL offer increased opportunities for practical skills training. Combining a learner-centred approach with learner support strategies will increase accessibility, participation and progress for women and girls, thus contributing to a more inclusive society.

Developing policies and practices that increase success in the transition of young women from TVET to employment, including:

- Training programmes that provide pathways to employment, such as development of ODL, TEL and blended learning strategies and agreements for TVET-workplace linkages including work-based learning models and apprenticeships, collaboration in curriculum development and development of workplace gender equality strategies;
- Equitable labour market policies and practices that do not discriminate against women in recruitment, hiring, remuneration and advancement;

- Awareness training, communications campaigns and penalties to mitigate unwelcome and non-inclusive TVET and workplace environments, common and pervasive bullying and harassment;
- More female role models, mentors, and networks that can work with young women virtually and in person as they enter the workplace.

Addressing the gender digital divide. ICT and broadband policies should be accompanied by improved basic computer literacy and

promotion of community e-learning centres, accompanied by gender-sensitive initiatives that increase the confidence of women and girls in using ICT. It is also important to minimize cultural norms that may exclude them from access to and control over computer technology. Increasing women's and girls' access to smart phones is an important step as well, both through keeping purchase costs low, and by changing attitudes that confine mobile ownership to men.



Bibliography

Adelakun, Olunihi A., Oviawe, Jane Itohan and Barfa, Garba 2015, Strategies for Enhancing Females Participation in Technical, Educational and Vocational Training (TVET) in Nigeria, *Advances in Social Sciences Research Journal*, Birmingham, U.K.

Ako Aotearoa 2019, *What are the Characteristics of an effective learning journey for women entering trades*, Wellington, <https://ako.ac.nz/knowledge-centre/what-are-the-characteristics-of-an-effective-learning-journey-for-women-entering-trades>

Asian Development Bank 2009, *Good Practice in TVET*, Manila

Brandusescu, Ana 2019, Why policymakers need to tackle the digital gender gap, World Wide Web Foundation, Washington. <https://webfoundation.org/2019/01/why-policymakers-need-to-tackle-the-digital-gender-gap/>

Chege, Pauline N. & Kariuki, J.N. 2016, *Increasing Women Access in TVET through ODL Programming: A Case Study of Thika Technical Training Institute in Kiambu Country, Kenya*, Commonwealth of Learning, Burnaby

Commonwealth of Learning 2020, *Strategies for Blended TVET in Response to COVID-19*, Burnaby

Commonwealth of Learning 2020, *Technical and Vocational skills Development*, Burnaby

DiCara, Manuela & Chatani, Kazutoshi 2019, Policy Note: *Distance and E-Learning in TVET*, ILO Jakarta

EdTech Hub & eLearning Africa, 2020, *The Effect of Covid-19 on Education in Africa and its Implications for the Use of Technology*, UK Aid, London

Frank, Kristen & Frenette, Marc 2019, *How Do Women in Male-dominated Apprenticeships Fare in the Labour Market?* Statistics Canada Analytical Studies Branch Research Paper Series, Ottawa

Ganter de Otero, 2019, *Innovation in TVET*, UNESCO-UNEVOC Trends Mapping, Bonn

Global Partnership for Education, 2020, *Africa: How can TVET Contribute to the Response to Future Pandemics?*, Education for All Blog, www.partnership.org, Washington

Government of New Zealand, Education Review Office 2015, *New Zealand Secondary-Tertiary Programmes (Trades Academies): What Works and Next Steps*, Wellington

GSM Association, 2020, *Connected Women: The Mobile Gender Gap Report*, London

- Gyarmati, David, Pakula, Basia, Nguyen, Cam & Leonard, Dominique 2017, *Enhancing the Retention and Advancement of Women in Trades in British Columbia: Final Report*, Social Research and Demonstration Corporation (SRDC), Ottawa
- Hird, G. and Richardson, A.M., 2015, *The Promise and Potential of ICT in TVET*, The World Report on TVET, UNESCO, Geneva
- Hoftijzer, Margo, Levin, Victoria, Santos, Indhira, and Weber, Michael 2020, *TVET Systems' response to COVID-19: Challenges and Opportunities*, World Bank, Washington
- International Development Research Corporation (IDRC), 2019, *Policy Relevant Lessons to help African Youth Develop Workplace Skills*, Ottawa
- International Labour Organization (ILO) Fact Sheet 2012, *National Strategy for Promotion of Women in TVET (Bangladesh)*, Dhaka
- ILO Skills for Employment Policy Brief 2014, *The Gender Divide in Skills Development: Progress, Challenges and Policy Options for Empowering Women*, Geneva
- ILO 2017, *Toolkit for Quality Apprenticeships, Vol. I: Guide for Policy Makers*, Geneva
- ILO, World Employment Social Outlook 2017, *Global Youth Unemployment is on the Rise Again*, Geneva
- Latchem, Colin -Ed, 2017, *Using ICTs and Blended Learning in Transforming TVET*, UNESCO, Paris & Commonwealth of Learning, Burnaby
- Mehrotra V.S., Sacheti A.K., 2009, Integrating TVET with Open and Distance Learning: Taking Skills Training to the Doorstep. In: Maclean R., Wilson D. (eds) *International Handbook of Education for the Changing World of Work*. Springer, Dordrecht.
- Misola, Nehema K., 2010, *Improving the Participation of Female Students in TVET Programs Formerly Dominated by Males: The Experience of Selected Colleges and Technical Schools in the Philippines*, UNESCO, Bonn.
- Mohapatra, B. and Mahapatra, S.K., 2016, *Gender, Skill Development and Employability: The Context of Open and Distance Learning Perspective in India*, Odisha
- Oduor, Chrispine, 2018, Kubutha, Bancy & Masese, Paul, *Improving the Quality of Service in Youth Polytechnics: A Demand-Led Approach to Skills Planning and Development*, Institute of Economic Affairs, Center for Transformational Leadership & Center for Enhancing Democracy and Good Governance, Nairobi
- OECD 2015, *Reviews of TVET: Key Messages and Country Summaries*, Geneva
- OECD 2018, *Bridging the Digital Gender Divide: Include, Upskills, Innovate*, Geneva
- Paudel, Anil, 2019, *Girls' transitions to work through higher-quality TVET programs in Nepal*, Center for Universal Education at Brookings, Washington
- Richardson, Alison Mead, 2014, *Innovation in TVET for lifelong learning and sustainable development*, Commonwealth of Learning, Burnaby
- Santos, Indira and Rubiano-Matulevich, Eliana, 2019, *Minding the Gender Gap in Training: Five Things to Know*, World Bank, Washington, blogs.worldbank.org
- Trade HERizons & Women's Network PEI, 2014, *Bricks and Mortar: Building a Community Response to Employment and Gender Gaps in Trades and Technology on PEI: A Needs Assessment*, Charlottetown
- UNESCO, UNEVOC ,2011, *Women and TVET: Report of the UNESCO-UNEVOC Online Conference*, Bonn
- UNESCO 2015, *Virtual Open Schooling*, <http://vos.nios.ac.in/niosvirtual/newsdocs>, Geneva
- UNESCO 2016, *Strategy for Technical and Vocational Education and Training (TVET) 2016-2021*, Paris
- UNESCO 2016, *Enhancing Relevance in TVET: Review of Progress in the Asia-Pacific Region since 2012*, Bangkok
- World Bank 2017, *Breaking the Glass Ceiling: Challenges to Female Participation in Technical Diploma Education in Bangladesh*, Dhaka
- World Bank 2020, Policy Brief: *How Countries are using Edtech to Support Access to Remote Learning During the COVID-19 Pandemic*, Washington
- World Employment Outlook 2017, *Global Youth Unemployment is on the Rise Again*, ILO Bonn



COMMONWEALTH of LEARNING

4710 Kingsway, Suite 2500
Burnaby, BC V5H 4M2 Canada
Phone + 604 775 8200 / Fax + 604 775 8210

 info@col.org

 www.col.org

 [@col4d](https://twitter.com/col4d)

 facebook.com/COL4D/

 instagram.com/commonwealthoflearning/

December 2020