Governance Infrastructure of Education–Training–Work Continuum: Some Missing Dots

Raymond Saner, Professor Titular, University of Basel, Switzerland

raymond.saner@unibas.ch

Lichia Yiu, Ed.D., President, Centre for Socio-Eco-Nomic Development (CSEND), Switzerland

yiu@csend.org

Summary

This chapter proposes a governance infrastructure to guide and coordinate six education–training–work transformations, namely, human capacity and demography; consumption and production; decarbonization and energy; food, biosphere, and water; and smart cities and digital revolution (The World in 2050 Initiative Report, 2018)[1].

Keywords

Education
Training and Work Governance
Four-level Governance Infrastructure
Micro-, Meso-, Macro- and Meta-levels
Linking Governance Mechanisms
Education-training-work Continuum

Introduction

The performance of an educational system should be measured against criteria that go beyond enrolment rate, number of schools and teachers and number of degrees granted, which are all output measures. Output measures as such are important but only make sense if these outputs generate positive outcomes such as the well-being of students and of the society as a whole. The former can and should be measured by the level of competences – skills, knowledge, abilities (SKA), employability and earn ability, and the latter, by total human capital stock, gross national productivity and national positioning in the division of labour within Global Supply and Value Chains. The education–training–work continuum (Carton & Mellet, 2021) is an innovative proposal about how to remedy current shortcomings and waste of resources.

The Education–Training–Work Continuum and Need for a Governance Infrastructure

An educational governance system based only on input or output measures is neither satisfactory nor effective. An innovative and adaptive governance system needs to monitor the outcome and impact in order to know whether an education–training–work system has achieved its mission.

The necessary institutional arrangements include a national Continuum information system as part of the Continuum governance infrastructure. A Continuum information system focuses on the collection of data necessary for decision-making and policy making at different scale and aggregate levels.

Social performance is the second rationale in setting up a robust Continuum governance infrastructure. Social justice is necessary to maintain peace and harmony, which is achieved through non-discrimination rule. "Leaving no one behind" (LNOB) is a key tenant of the 2030 Agenda for Sustainable

Development. Others include participation, transparency and accountability of the Sustainable Development Goals (SDG) processes. A Continuum governance infrastructure is needed to provide the guardrail for the implementation process.

Functionality of an Education–Training–Work Continuum Governance Infrastructure

In the context of continuum transformation and universal application, a robust governance infrastructure should help identify the gaps, inconsistencies and misalignment of the Continuum at different aggregate levels and operational contexts. Quality Education for All[2] must go beyond simply increasing access to education and school enrolment rates at all levels, especially for girls, and should include ways to improve employability, decent work, sustainable livelihoods, and countries' sustainability.

A Four-Level Structure for an Inclusive Education–Training–Work Continuum Governance Infrastructure System

The structure of a successful education–training–work Continuum governance infrastructure is divided into different levels of control and governance capacities in order to achieve agility, coordination and adaptability. Such a multi-level structure is necessary to ensure that governments maintain public trust and meet the demand of their citizens that school leavers are enabled to get access to socioeconomic opportunities.

The proposed governance structure consists of four basic levels, namely, educational enterprise, or micro level; sector/industry, or meso-level; national policies, or macro-level; and global agreements and guidelines, or meta level (Figure 1). Each level forms an input–output link and feed-in and feedback loops.

Figure 1. Four-level governance infrastructure for Continuum operation

Source: based on Saner & Yiu, 2019

Table 1 defines the characteristics of the four-level governance structure.

Table 1. defines the characteristics of the four-level governance structure

	Levels	Place of learning, activities and/or decision making	Actors	System requirements	Outcome indicators and measures
Practices	Micro level	· Learning within formalized settings, e.g., schools, colleges, universities · In-company or in-organization training · Informal learning e.g., skill acquisition, management courses	· Established educational institutions · Training departments of the organizations and companies · Training providers (public or private)	· Partnerships with local stakeholders, including economic actors for formal education · Mechanisms for effective continuous learning in order to maintain employability · Return on investment for individuals and for organizations	Individual level · Life skills and equivalent of SKAs for specific work contexts · Getting a meaningful job one year after graduation Institutional level · Lower level schools: rate of educational advancement after graduation, or finding a placement in organisations · Tertiary and higher education: rate of employment one year after graduation · Companies: performance improvement and results (Kirkpatrick, 1959) [1] · Reduction of performance gaps at individual employee, department, and enterprise levels

Meso level (sectoral)	• Qualification training for adults organized by sector associations, e.g., Coding, Oracle, SAP, electrician, project management, organic farming • Learning within workplaces which include apprenticeship programs, e.g., insurance, lab technicians	• Industrial associations for specific sectors • Private companies offer qualification training to boost human resources • TVET with a workplace apprenticeship or practicum component	• Occupational standards or national classification system (Yiu & Saner, 2009) • Mid- and long-term development plans as guidance for workforce development • Partnerships among enterprises, government and training and education providers	• Increasing workforce supply of specific SKA at the novice level through apprenticeship and move onto more advanced levels of competence [2] acquisition • Rate and time of new technology adoption • Emergence of new businesses with new products or services • Organisational capacity to participate in new markets
Policies, regulation — Macro level	National educational and economic policies and educational system	• Ministry of Education (producer/supplier) • Ministry of Labour (intermediary client) • Ministry of Economics (buyer/customer) • Parliament (oversight)	* From the perspective of the 2030 Agenda, the national education policies in achieving SDG 4 and its vital inputs/contributions to the attainment of other SDGs * National competitiveness * Gross national productivity * Market conditions	* *Education and employment policy evaluation* * Soft evaluation: HLPF SDG 4 quality education, and 8 economic growth and decent work; links to 17 (sharing technology-learning), 5 gender equality, 10 between and within country equality * Measuring, e.g., OAQ and other evaluations * FDI attractiveness and human capital * Human capital assessment * Do young get education that prepares them for entry into job market? * Are they prepared to fulfil their role as a civic citizen? * Does education lead to entrepreneurial innovation?
Meta level	• Technical support and policy advice regarding countries' educational outcomes and learning architecture for formal education, informal, non-formal education and LLL • Benchmarking and feedback • Internationalization of educational services (Lim & Saner, 2011; Saner, 2015)	• UNESCO, OECD, ILO, UNDESA-SDGs, SDSN • WTO education and trade in education agreements • Ministry of Foreign Affairs, Ministry of Trade and Ministry of Education	• Border condition: openness of educational services and products and allowing for foreign education providers to invest and operate in other countries • Availability of national data and UN access • Comparability of data	Benchmarking assessment regarding education attainment, for example: PISA (OECD), The Global Education Monitoring Report (UNESCO), IEA [3], PIRLS [4], TIMSS [5] The ILO's World Employment and Social Outlook Report 2022 [6]

[1] https://www.mindtools.com/pages/article/kirkpatrick.htm#:~:text=What%20Is%20the%20Kirkpatrick%20Model,Learning%2C%20Behavior%2C%20and%20Results

[2] https://medium.com/@anhminhdo/4-levels-of-competence-fb1bbddd945d

[3] The International Association for the Evaluation of Educational Achievement (IEA) is an international cooperative of national research institutions, governmental research agencies, scholars, and analysts working to research, understand, and improve education worldwide. https://www.iea.nl/

[4] Progress in International Reading Literacy Study 2021 (PIRLS 2021): https://www.iea.nl/studies/iea/pirls/2021

[5] 36TIMSS and PIRLS are international assessments that monitor trends in student achievement in mathematics, science, and reading. Currently 70 countries participate in the assessments, which have been conducted at regular intervals since 1995. https://timss.bc.edu/

[6] https://www.ilo.org/global/research/global-reports/weso/trends2022/WCMS_834081/lang--en/index.htm

The four-level governance structure connects the dots and allows the education-training-work continuum system to operate as the "new normal." To govern such a complex system of the continuum, the governance mechanism embedded in the different levels or scales and different local contexts needs to be equipped with three fundamental pillars:

1. Shared vision and measurable indicators,

2. Universal and verifiable operational procedures, also known as Standard Operating Procedures (SOPs)[3], and self-adaptive capacities to be effective and transformative, and

3. Mechanisms that link different levels of the continuum and ensure a governance infrastructure that is integrated and purposeful. Such a link is also known as a linking pin in the organizational theory literature, prescribed as "principle of supportive relationships" (Likert, 1961)[4] and performs the integration function for greater performance.

Criticality of the Linking Mechanism for an Effective and Integrated Education-Training-Work Continuum Governance System

Maintaining alignment of different levels is not guaranteed. Strategic intent and the operational practices of education programs can be very much disconnected and all components of the continuum can end up being managed and treated as separate silos with varying degrees of boundary intensity. Without planned linking pin mechanism in place, needed performance feedback from one level to the next will not occur and will negate the self-corrective and learning function of such a governance system. Consequently, this disconnect may render the continuum with suboptimal results.

The tracking and the monitoring of a SOP, common in standard quality management practices, thus serve as the guardrails of an the education-training-work continuum governance infrastructure that generates systematic feedback to regulate and correct deviation. SOPs at the micro level feed into meso level, while the meso level feeds into the macro level, and so on, forming a networked quality assurance system that will be able to support continuum implementation and create desired impact at scale.

Conclusions

The education-training-work continuum should be understood as an integrated system that channels education and training and LLL towards productive outcomes. However, a robust and databased tracking system is necessary to support the governance function of a multi-level continuum-based education and learning system.

Standardization is needed to govern the complexity of a responsive multi-layered education and learning system that crosses its traditional boundaries and works in partnership with other sectors, such as labour affairs, economic affairs and even trade.

A macro information system should be constructed for data collection, storage and analytics in order to achieve quality education through a continuum with upward and downward feedback loops and transparent relationships between education sector and other stakeholder groups in fulfilling the mandate of quality education for all and inclusive socio-economic mobilities.

Endnotes

1. TWI2050 Report: Transformations to achieve the Sustainable Development Goals https://www.unsdsn.org/news/2018/07/13/twi2050-report-transformations-to-achieve-the-sustainable-development-goals

2. https://unric.org/en/sdg-4/

3. Standard operating procedures based on the four-level education-training-work continuum governance infrastructure.

4. Likert (1961), New Patterns of Management. McGraw-Hill.

References

Carton, M., & Mellet, A. (2021). *The education, training and decent work continuum: Opportunities for transformative perspectives for inclusion*. NORRAG. https://resources.norrag.org/resource/658/theeducation- training-and-decent-work-continuum-opportunities-for-transformative-perspectives-for-inclusion

Lim, A. H., & Saner, R. (2011). Rethinking trade in education services: A wake-up call for trade negotiators, *Journal of World Trade*, *45*(5), 993–1036.

Saner, R. (2015). Riding the tiger of growing trade in higher education services: Smart regulation   needed instead of laissez-faire hyperopia or prohibition policy myopia. https://www.diplomacydialogue.org/images/files/Riding_the_tiger_of_growing_trade_in_higher_education__services_3.pdf

Saner, R., & Yiu, L. (2019). Financing education in developing countries: Philanthropic organizations need to monitor their investment for impact. CEPS Working Paper Series No. 15. http://www.csend.org/images/articles/files/20190309-WP_15_Financing%20Education%20in%20Developing%20Countries%20fianl.pdf

Yiu, L., & Saner, R. (2005). Does it pay to train? ISO 10015 assures the quality and return on investment of training. *ISO Management Systems*, *5*(2), 9–13.

Yiu, L., & Saner, R. (2008). Assessment and accreditation of non-formal management education and development programmes. In S. Armstrong & C. V. Fukami (Eds.), *The SAGE handbook of   management learning, education and development* (pp. 531–536). SAGE.