What is Learning Progression and is it Applicable to TVET in the Philippines?

TVET BRIEF: INDUSTRY TRENDS | ISSUE NUMBER 3 | SERIES OF 2024

TESDA

Does Learning Progression apply to Philippine TVET?

I. Introduction

Learning itself, in different stages in life, entails progression which means the process of developing or moving gradually from basic towards a more advanced state. Learners acquire knowledge and skills in a gradual or sequential manner primarily based on curriculum or learning content that teachers will deliver and in the context of the overall national education policies in a country. In some developed countries like Australia, United Kingdom (UK), and United States of America (USA), learning progression has been purposely used as a concept and tool for planning instruction and assessing learning[1]. Essentially, "learning progression are the detailed driving directions that guide students from where they start to where they need to go" in the process of completing their learning targets in different subject domains."[2] It maps the routes students typically follow as they gain increasingly sophisticated levels of knowledge and skills during the passage from novice to expert levels of understanding in a period of time. (Kurtz, 2015)[3].

In the Philippines, learning progression has been employed in the instruction for basic to senior high school education under the K to 12 program[4] in the development of curriculum as confirmed by the Department of Education (DepEd) Bureau of Curriculum Development. It is applied to the curriculum development process observed by DepEd including in its "MATATAG Curriculum Guides" which are comprehensive instructional frameworks to make the curriculum relevant to produce competent and job-ready, active, and responsible citizens[5]. For tertiary education, learning progression is inherently applied in Outcomes-Based Education (OBE) as implemented by the Commission on Higher Education (CHED) in the Philippines, even though it may not be explicitly termed as such.

[1]Heritage, M. Learning Progressions: Supporting Instruction and Formative Assessment (Council of Chief State School Officers) https://www.michiganassessmentconsortium.org/wp-content/uploads/Learning-Progressions.pdf

[2]Kurtz, H. Learning Progressions: Maps to Personalized Teaching (2015). https://www.edweek.org/teaching-learning/learning-progressions-maps-to-personalized-teaching/2015/11

[3]Ibid

[4]Republic Act No. 10533 also knowns as Enhanced Education Act of 2013

[5]Department of Education's Learning Progression and Learning Targets in K-12 Spiral Science Curriculum through Pedagogical Retooling in Mathematics, Language, and Science for Grades 4-6 Teachers

In the context of instruction and assessment within the Technical Vocational Education and Training (TVET) system, learning progression is a foundational concept that is both well-established and integral to its framework. The Philippine TVET system, guided by policies aimed at enhancing the employability of graduates, and ensuring skill alignment with industry demands, has significantly evolved over three decades. Since its inception in 1994, the system has continually refined its processes, producing comprehensive manuals and frameworks for curriculum development and assessment to address these objectives.

This TVET Brief seeks to explore the concept of learning progression—its principles, significance, and how it is operationalized within the Philippine TVET system. Furthermore, it examines whether the structured and incremental approach of learning progression aligns with the overarching goals and practices of TVET in the country.

II. Defining the concept of Learning Progression

Learning progression has been a subject of many researchers as cited in the article of Karin Hess (2008). Researchers included developmental, educational, and cognitive psychologist, as well as curriculum and content specialists who have attempted to define and operationalize the use of learning progressions/continua for instruction and assessment purposes over the years. On the other hand, Margaret Heritage (2008) also wrote a seminal work about "Learning Progressions: Supporting Instruction and Formative Assessment" in the University of California, Los Angeles which discussed the definition and attributes of Learning Progression. Heritage (2008) presented various definitions of learning progression from the literature, emphasizing two key attributes: (1) vertical development and (2) progression:

- *Vertical conceptualization of learning* - learning is conceived as a sequence or continuum of increasing expertise or through a developmental view of learning which invites teachers to conceptualize learning as a process of increasing sophistication, rather than as a body of content to be covered within specific grade levels;
- *Progression* – there is a sequence along which students can move incrementally from novice to more expert performance. Implicit in progression is the notion of continuity and coherence. Learning is not viewed as a series of discrete events, but rather as a trajectory of development that connects knowledge, concepts and skills within a domain. With clear connections between what comes before and after a particular point in the progression teachers can calibrate their teaching to any missing precursor understanding or skills revealed by assessment, and determine what the next steps are to move the student forward from that point.

These definitions inherently incorporate the idea of vertical development over extended period of time, without referencing specific grade or age-level expectations. Instead, learning is viewed as a continuum of increasing expertise, characterized by a sequence that enables learners to progress incrementally from novice to expert performance. The said two attributes of learning progression were derived from the definitions as discussed below.

Learning progression is described in the following:

- *As progress maps which are vertical maps that provide "a description of skills understanding and knowledge in the sequence in which they typically develop: a picture of what it means to 'improve' in an area of learning" (Masters & Foster, 1997, p.1)*

[6]Hess, K. "Developing and Using Learning Progression as a Schema for Measuring Progress" National Center for the Improvement of Educational Assessment (2008)

- *As "descriptions of the successively more sophisticated ways of thinking about a topic that can follow one another as children learn about and investigate a topic over a broad span of time" (The authors of Taking Science to School [NRC, 2007, p. 8-2).*
- *As descriptions of how students gain more expertise within a discipline over a period of time. "They represent not only how knowledge and understanding develops, but also predict how knowledge builds over time" (Stevens et al.,2007, p.2).*
- *As a "carefully sequenced set of building blocks that students must master en route to a more distant curricular aim. The building blocks consist of sub skills and bodies of enabling knowledge." (Popham, 2007, p. 83)*
- *As "based on research syntheses and conceptual analyses and describe successively more sophisticated ways of reasoning in a content domain that follow one another as students learn." (For Smith et al.,2006, p.2).*

In short, learning progression is envisioned as a development of progressive sophistication in understanding and skills within a domain (Heritage, 2008).

James Popham[7], an Emeritus Professor in the UCLA Graduate School of Education and Information Studies, wrote in 2007 about "The lowdown on learning progressions" wherein he explained how learning progression is used. He underlined that learning progressions are constructed on the basis of some sort of backward analysis and illustrated it in the following:

1. *An educator first identifies a significant curricular aim and then asks, "What does a student need to know or be able to do to master this aim?"*

2. *The educator identifies one necessary building block and then asks, "What does a student need to know or be able to do to master this building block?"*

Popham said that this sort of backward analysis can isolate the key tasks a student must accomplish on the way to mastery through the teachers' planning of the "sequence of the learning progression's building blocks in a pedagogically defensible order."

In 2015, Holly Kurtz featured "Learning Progression: Maps to Personalized Teaching" in Education Week Research Center[8] wherein she cited Popham's explanation why learning progression is important in learning delivery as follows:

> *"A learning progression to me is a prerequisite for an effective formative assessment because a learning progression is [a series of] building blocks you think kids have to have before they acquire terminal curricular outcomes."*
>
> *"If you don't have a learning progression, how do you know when it's time to make a decision to adjust your instruction? If you're doing formative assessment without a learning progression, you're not thinking it through carefully... You're not going to get the most mileage out of it."*

[7]Popham, J. W. (April 2007). The lowdown on learning progressions. Educational Leadership, 64(7), 83-84
[8]America's resource for K-12 education news and information as found in https://www.edweek.org/teaching-learning/learning-progressions-maps-to-personalized-teaching/2015/11

It can be inferred from the definitions of learning progression has the following aspects:

1. **Formative Assessment**: Learning progressions are often aligned with formative assessments, helping teachers gauge where students are along the progression and identify what instruction or support is needed for them to move forward. It requires teachers to actively monitor continuously (i.e. track and measure) about what learners know and can do, not merely measuring the learning of a student at the end of completing the curriculum set of topics through quantitative computation of grades. "Monitoring will allow teachers to understand their students and thus teach them better"[9]. This monitoring is done through collection of data or evidences for each learners', not as class as a whole.
2. **Building blocks or learning maps and proficiency**: Learning progressions map out how students' understanding evolves, typically beginning with foundational concepts and moving towards more sophisticated, abstract, or integrated ideas, content, and skills.
3. **Cumulative Learning**: The idea is that each step builds on the previous one, reinforcing earlier learning while introducing new challenges. Progressions assume that learning is a process of continuous development rather than isolated milestones.
4. **Differentiation:** Since learners' progress at different rates, learning progressions are not rigid. They allow for differentiation, giving room for teachers to provide interventions or enrichment as needed.
5. **Feedback to learners**: This requires teachers to also provide feedback and information to learners about their progress in learning or how well they are learning throughout the process so that they can be responsible for their learning and be part of the joint process of learning for both teachers and learners[9].

III. International context, benefits, issues of Learning Progression

Holy Kurtz (2015) discussed briefly about the history of learning progressions. While it was not exactly said how such concept was originally coined or where it originated, "Australia, the United Kingdom, and other nations have used them for decades".

In USA, the 2008 Council of Chief State School Officers[10] helped to popularize learning progressions in the country. Prior to this, "a landmark 2006 National Research Council report on science education described learning progressions as "a promising direction for organizing science instruction and curricula across grades K-8."

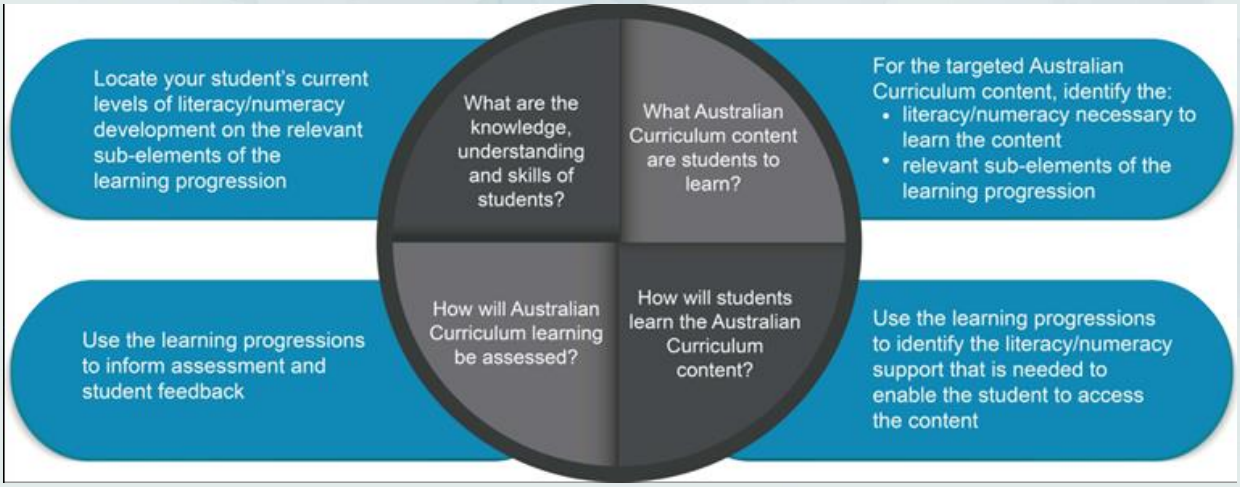
In Australia, Australian Curriculum, Assessment and Reporting Authority (ACARA) developed the Australian Curriculum who have used the learning progressions to support teaching and learning of all Australian Curriculum learning areas as shown in Figure 1 on the next page.

[9]DepEd Order No. 8, series of 2015. Policy Guidelines on Classroom Assessment fir the K to 12 Basic Education Program https://www.deped.gov.ph/wp-content/uploads/2015/04/DO_s2015_08.pdf

[10]The Council of Chief State School Officers (CCSSO) is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, the Bureau of Indian Education and the five U.S. extra-state jurisdictions. See link at https://ccsso.org/about

According to ACARA, “The progressions do not describe what to teach; they provide a detailed map of how students become increasingly adept in particular aspects of literacy and numeracy development. Learning area content and achievement standards continue to be the focus for planning, programming, teaching, learning and assessment in relation to the Australian Curriculum[11]”.

Figure 1 shows the relationship between the progressions and the Australian Curriculum, in the context of the teaching and learning cycle.



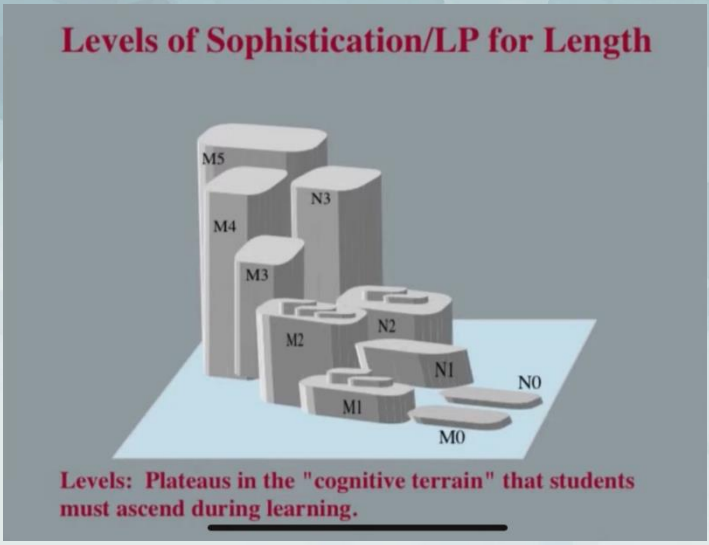
Popham (2007) has cited the “Australian Council for Educational Research (ACER) for accomplishing some impressive pioneering work in developing learning progressions in many subject areas and for many age levels and providing practical guidelines regarding how such progressions can contribute to teachers' decision making.” In Australia, educators and curriculum experts refer to learning progressions as progress maps. ACER, which aims to shape education policies through research, look at how curricular, assessment and reporting policies and practices can be redesigned to be more consistent with, and more explicitly underpinned by, empirically-informed learning progressions[12].

On his part, Michael Battista, a professor in Ohio State University in the USA, wrote numbers of published work about learning progression, albeit his focus had been mathematics as learning area or domain. He wrote in 2010 “Representations of learning for teaching: Learning progressions, learning trajectories, and levels of sophistication”[13]. For Battista, learning progression is essentially “an ordered set of levels of sophistication.” He proposed that there are plateaus (as illustrated below) in the “cognitive terrain” that students must ascend during learning. “Once a student’s reason about an idea has been located in a learning progression, not only has the student’s mathematical cognition been appropriately conceptualized, but we have an excellent idea of where the student should proceed next to further develop that cognition.”

[11]https://www.australiancurriculum.edu.au/resources/national-literacy-and-numeracy-learning-progressions/how-can-the-progressions-be-used/

[12]https://features.acer.org/acer-strategic-plan-2022-27/index.html?_gl=1*556gux*_ga*ODA1NzU3ODg1LjE3Mjk2NDQ1NjE.*_ga_PZYP8BGS56*MTcyOTY0NDU2MS4xLjAuMTcyOTY0NDU2MS4wLjAuMA..*_ga_D6CMYXE06L*MTcyOTY0NDU2MS4xLjAuMTcyOTY0NDU2MS4wLjAuMA

[13]Battista, M. T. (2010). Representations of learning for teaching: Learning progressions, learning trajectories, and levels of sophistication. In Brosnan, P. Erchick, D. & Flevares, L. (eds.), Proceedings of the Thirty Second Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Columbus, Ohio, October. 2010.



For example, at the beginning, learners tend to add numbers by counting manually even by hand or individually the digits. As learning become sophisticated, they learn strategies to add through the multiplication tables or skipping the sequential counting of digits to get to the total sum. Among the steps that Battista recommended how to determine student's position in learning progression are: a) individual interviews and b) written work can be used with proper instructions.

Benefits of Learning Progression

Popham (2007) elucidated the benefits of employing learning progression as pedagogical approach. These includes the following:

1. *First, identifying "must-learn" building blocks enables teachers to plan instructional sequences that give students systematic rather than sporadic opportunities to master each building block in the learning progression. If the teacher has a clear road map that designates pivotal stops along the way, it is far easier to incorporate those stops.*
2. *Second, such analyses can form the framework for an optimally effective formative assessment process. Formative assessment provides evidence, routinely gathered during ongoing instruction, that helps teachers adjust their instruction and students adjust their learning tactics. Teachers can collect this adjustment-focused evidence using either formal or informal assessment techniques—but they shouldn't collect such data on a whim. The formative assessment process will be far more successful if teachers systematically collect evidence of a student's progress toward mastery of each key building block in a learning progression. If a student is having trouble with building blocks, assessments can pinpoint why*.

Challenges of Learning Progression

Despite the benefits of learning progression, Popham (2007) also pointed out three common issues related to using such a tool for the first time or for neophytes. These are the following:

1. *First, with few exceptions, there is no single, universally accepted and absolutely correct learning progression underlying any given high-level curricular aim.*
2. *A second important factor is selecting an appropriate grain size for the progression's building blocks.*
3. *Finally, isolating and sequencing the building blocks underlying students' attainment of a challenging curricular aim requires rigorous cerebral effort.*

IV. Application of Learning Progression in the Philippines

- **Basic Education**

In the Philippines, learning progression is not an entirely new or unknown concept, but in fact has been employed in the instruction in K to 12 program[14] in the development of curriculum, although this is done under the spiral progression approach[15]. According to the study made by the Second Congressional Commission on Education or EDCOM2 about Basic Education Curriculum and Instruction, "The original K to 12 curriculum uses the spiral progression approach across subjects" (EDCOM2 Green Paper, 2023, p.6)[16].

The spiral progression approach is designed to build on the same concepts in each grade level and develop in increasing complexity from Kinder to Grade 10 (DepEd Order 21 s. 2019; Enhanced Basic Education Act of 2013), although that EDCOM2's findings in its report in 2024 that teachers had some issues on the implementation of spiral progression approach[17]. Literature review on spiral progression model explains that it "connects to the sequence of curriculum content and the scope of curriculum" with focus on the organization of content "using learning progressions."[18]

The K to 12 Program covers Kindergarten and 12 years of basic education (six years of primary education, four years of Junior High School, and two years of Senior High School [SHS]) to provide sufficient time for mastery of concepts and skills, develop lifelong learners, and prepare graduates for tertiary education[19]. The goal under the basic education is essentially to nurture holistically developed Filipino towards college and livelihood readiness, and 21st century skills. It is said that a K to 12 graduate will be "ready to go into different paths – may it be further education, employment, or entrepreneurship"[19]. Currently, Technical Education and Skills Development Authority (TESDA) is developing a "Multiple Pathways for Senior High School Graduates".

Meanwhile, based on the policy under DepEd Order 8, s. 2015[20], there is conscious effort to implement formative assessment in classroom assessments in K to 12 which can be related to learning progression. It is also applied to Alternative Learning System - Education and Skills Training Program (ALS-EST). The table below shows comparison of main two types of classroom assessments[21].

[14]Republic Act No. 10533 also knowns as Enhanced Education Act of 2013

[15]Department of Education's Learning Progression and Learning Targets in K-12 Spiral Science Curriculum through Pedagogical Retooling in Mathematics, Language, and Science for Grades 4-6 Teachers

[16]https://edcom2.gov.ph/media/2023/06/EDCOM2_Green-Paper_07-BASIC-ED-Curriculum-and-Instruction_230615.pdf

[17]Miseducation. The failed system of Philippine education: EDCOMII Year One Report. (2024) https://edcom2.gov.ph/media/2024/02/EDCOM-II-Year-One-Report-PDF-022924.pdf

[18]Tirol, Shiela L. "Spiral Progression Approach in the K to 12 Science Curriculum: A Literature Review." International Journal of Education, vol. 10, no. 4, 2022, p. 29. https://doi.org/10.5121/ije.2022.10403.

[19]https://depedtagbilaran.org/about-the-k-to-12-program/

[20]DepEd Order No. 8, series of 2015. Policy Guidelines on Classroom Assessment fir the K to 12 Basic Education Program https://www.deped.gov.ph/wp-content/uploads/2015/04/DO_s2015_08.pdf

[21]Alternative Learning System - Education and Skills Training Program (ALS-EST) https://www.deped.gov.ph/als-est/PDF/ALS-EST_Handbook_Chapter08.pdf

Areas of concern	Types of Assessment		
	Formative Assessment		Summative Assessment
	Assessment for Learning	Assessment as Learning	Assessment of Learning
Why Assess	To enable teachers to determine next steps in advancing student learning	To guide and provide opportunities for each student to monitor and critically reflect on his or her learning, and identify next steps	To certify or inform student's proficiency in relation to curriculum learning outcomes
What to assess	Each student's progress and learning needs in relation to the curricular outcomes	Each student's thinking about his/her learning, what strategies he/she uses to support or challenge that learning, and the mechanisms he/she uses to adjust and advance his/her learning	The extent to which students can apply the key concepts, knowledge, skills, and attitudes related to the curricular outcomes
How to Assess	A range of methods in different modes that makes students' skills and understanding visible	A range of methods in different modes that elicits students' learning and metacognitive processes	A range of methods in different modes that assesses both product and process

Source: Adapted from Earl and Katz (2006)

As described by Carnegie Mellon University (CMU) in Pennsylvania, United States, "The goal of formative assessment is to monitor student learning to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. More specifically, formative assessments: (1) help students identify their strengths and weaknesses and target areas that need work and (2) help faculty recognize where students are struggling and address problems immediately."[22]

In 2021, Department of Education (DepEd) - Bureau of Learning Delivery (BLD), in partnership with U.S. Agency for International Development (USAID), conducted a pilot training for *Formative Assessment for Early Language, Literacy, and Numeracy (ELLN) in the Philippines through RTI International (RTI),* whereby the content and delivery was prepared by ACER which aims to instigate change in teacher practice in a way that will lead to improved outcomes for students. They engaged 119 participants of teachers from all 17 regions in the Philippines.

In a report after the training[23], ACER highlighted that teachers in Kindergarten to Grade 3 (K–3) classrooms "may still be operating from a traditional teacher-centered perspective, with their central focus on what the teacher is doing or needs to do." In its findings, ACER's maintained, however, that:

1. *In formative assessment, we are looking for a shift to a more learner-centered perspective, with a central focus on learning and the individual student's progress along a learning pathway.*
2. *A significant proportion of teachers in the Philippines may be operating at low levels of formative assessment practice, where their focus in observed lessons is on delivering the planned lesson, correcting student mistakes, and reminding students of the instructions (Cagasan et al., 2020).*

ACER held that Philippine's traditional teacher-centered perspective is in contrast to a more sophisticated, higher level of formative assessment practice—underpinned by learning progression.

In view of the literature discussed, learning progression highlights the importance of (1) monitoring and assessment of learner's progress in the building blocks, learning content or curriculum towards higher standard or sophistication of learning and mastery and (2) the teacher giving feedback to the learner the assessment about his/her progress in the learning area so the learner can also actively participate in his/her own self-assessment and direction towards the learning targets:

[22] https://www.cmu.edu/teaching/assessment/basics/formative-summative.html

[23] Berry, A. Poluan, G. and Pradhika, C. Online Training on Formative Assessment for Early Language, Literacy, and Numeracy (ELLN) in the Philippines Final Report (USAID, 2021). https://ierc-publicfiles.s3.amazonaws.com/public/resources/PH%20Formative%20Assessment%20Training_Final%20Report_FINAL.pdf

- **Tertiary Education**

While CHED does not have a specific policy explicitly outlining learning progression at the tertiary level, it promotes the adoption of outcomes-based education (OBE) in all degree programs, aligning the program outcomes with the Domains and Descriptors of the Philippine Qualifications Framework (PQF).

The adoption of the OBE is outlined in CHED Memorandum Order No. 46, series of 2012. This also serves as the basis for the alignment of degree programs with the PQF which is reflected in various policies, standards, and guidelines for bachelor's degree programs. For the graduate programs in particular, alignment with PQF Levels 7 (Master's Degrees) and PQF Level 8 (Doctoral degrees) is outlined in CHED Memorandum Order No.15, series of 2019.

In Outcomes-based education standards in HEIs, which is said to be learner-centered within a lifelong learning framework, course content is developed in terms of "learning outcomes"—that may serve as building blocks for tertiary education. In this paradigm, students are made aware of what they ought to know, understand and be able to do after completing a unit of study and prepare them to roles they will assume as adults amidst the wide range of disciplines and branches of knowledge.

It is noteworthy that while CHED does not provide a direct policy on learning progressions at the tertiary level, individual higher education institutions (HEIs) often develop their own guidelines and frameworks to implement learning progression strategies tailored to their specific programs and courses. These institutional initiatives complement CHED's broader directives, fostering coherence in educational outcomes and learning development.

V. Can learning progression apply in TVET?

In the context of Technical Vocational Education and Training (TVET), TESDA primarily implements **competency-based training approach for training delivery of TVET**. The development of learning content and curriculum is aligned to that approach in order to bridge training of learners towards employment (Manual for CBLM, 2021). In a competency-based training approach, the aim is for learner to achieve the required competency or cluster of competencies of a qualification based on existing industry standards as well as prepare for emerging skill requirements.

In consideration of the foregoing discussion underpinning learning progression, although the concept "learning progression" is not explicitly mentioned in TESDA circulars or manuals, it can be said that it is present and actually applied in TESDA's competency-based training approach, following the key attributes of learning progression namely (1) vertical development and (2) progression.

[24]Manual for Competency-based learning material development (TESDA, 2021)
[25]TESDA Circular No. 042 s. 2021 entitled "Implementing Guidelines on the Area-Based and Demand-Driven TVET" (22 April 2021)

In terms of vertical conceptualization of learning, TESDA's range or level of assessment and certification per training or competency may be perceived as the sequence or continuum of increasing expertise. In this sense, there is indeed a level of sophistication of mastery of knowledge and skills identified under the TVET assessment and certification in TESDA as can be seen in the levels of National Certification (NC I, II, III, IV etc) of TVET graduates. A trainer must train learners in accordance to a specific level of qualification and competency-based curriculum. The building blocks in TVET are the unit of competency and a learner may progress towards achieving the desired qualification through completing training in three categories of competencies: basic, common, and core competencies.

Achieving the "qualification" serves as the final level that a learner aims to attain in a vertical development in the context of TVET. A qualification represents a coherent and meaningful set of competencies required in the workplace, aligned with the Philippine TVET Qualifications Framework (PTQF) descriptors. Each qualification corresponds to a specific level within this framework, such as National Certificate levels I, II, III, or IV.

In terms of progression, this aspect is very well-established in TESDA's competency-based curriculum and training programs. As embodied in TESDA Circular No. 02, series of 2011, no training shall commence without session plans or training activities matrix which are prescribed in Trainers Methodology Level I (TM I) documents. Trainers must prepare their sessions plans prior to the conduct of their job of training TVET learners in order for the former to have clear sequence of content and activities to teach and conduct so that students may learn and master the competency he or she aims to acquire.

Trainers are expected to assess their learners' progress through a standard and comprehensive Student/Trainee Record Book (S/TRB) which is purposively designed to record and monitor the student's/trainee's progress in the performance or completion of the various tasks per learning outcome. It means that trainer must purposively plot out clear connections between what comes before and after a particular point in the progression of the competency-based curriculum. In the Assessment Criteria of a competency-based module, it is indicated if a pre-requisite unit of competency is necessary to be accomplished prior to taking the next one.

Progression in TVET is evident with the fact that there is a sequence along which students can move incrementally from novice to more expert performance. Moreover, TVET acknowledges "recognition of prior learning" so a learner can upskill or reskill based on his knowledge and skill prior to enrolment in TVET. In a competency-based training, there is trajectory of development that connects knowledge, concepts and skills within a domain which can be at the minimum the unit of competency[27] or at the maximum the qualification that the learner aims to achieve.

[26]TM I is designed to equip TVET trainers with the essential competencies to effectively perform their roles as both trainers and assessors.

[27]"Unit of competency" refers to a component of the competency standard stating a specific key function or role in a particular job or occupation serving as a basis for training an individual to gain specific knowledge, skills and attitude needed to satisfy the special demands or requirements of a particular situation.

Meanwhile, in TESDA, there are so-called “stackable competencies”[29] which is known as a system wherein learners accumulate knowledge over time, in the form of credentials and competencies that build up a person’s qualifications. It is an emerging tool that allows students to obtain credentials/competencies in the short term, which they then build up continuously in the hopes of eventually obtaining higher-level education or qualification that industries recognize. It means that learning progression in Philippine TVET can be varied in terms of the target competencies or qualification that a learner aims to attain.

In view of learning progression’s emphasis on differentiation or variety of learners, Philippine TVET certainly caters to various clientele who come from different profiles of age, educational level, program, location, and goal in pursuing TVET. TESDA serves a diverse clientele, primarily focusing on the development of the middle-level workforce in the Philippines, although individuals seek TVET mainly to enhance their skills and as a pathway for employability. With this, trainers must allow for differentiation, giving room to provide interventions or enrichment as needed as learners master the skills at different rates and learning progressions are not rigid.

Finally, as monitoring and assessment of learner’s progress in the building blocks are crucial in learning progression, this aspect is ingrained in TESDA’s competency-based approach. As mentioned, TESDA trainers record and monitor each student’s/trainee’s progress in their respective S/TRB which was mandated in TESDA policy since 2011. Further in 2021, competency-based learning materials (CBLM) development require that assessment criteria and methods are included curriculums of TVET. Assessment Methods refer to those activities used to gather evidence of sufficient quantity and quality on which to make a sound judgement about a candidate’s competence. These may include observation, simulation, interview, presentation and written assessment.

Formative assessment in TVET programs which is conducted throughout the duration of training enables trainers to evaluate a learner’s progress in mastering specific units of competency or categories of competencies, allowing for timely feedback and adjustments to the learning process, there is a clear parameters on the progress of the trainees which explains based on accumulated and evaluated Unit of Competencies, which is presented though its progress chart Conversely, summative assessment is conducted after the training program during the Assessment and Certification stage. This evaluation ensures that learners have achieved the required competencies and qualifications to meet industry standards.

The integration of both formative and summative assessments in the Philippine TVET system is commendable. These assessment types not only prepare graduates to be work-ready, but also guarantee that they possess the competencies and qualifications essential for successful employment or application in the workforce. This dual assessment underscores the system’s commitment to producing quality. skilled and competent professionals aligned with industry needs.

[29]Williamson and Petinsky, 2016; Leibert, 2017 as cited in TVET Brief No. 4, s. 2021

VI. Ways Forward

As learning progression, undoubtedly, is beneficial approach for both learners and teachers, policy recommendations on how aspects of Learning Progression may be further applied to TVET in the country are the following:

- First, in terms of formative assessment, it would be good to collect data on the point of view of trainers on what difficulties or challenges they experience in the assessment of learners or conducting the assessment methods. This is because learning progression is not just at the point of view of learners, but also having trainers equipped with competencies and tools to properly assess their students and prepare learners to move towards the summative assessment during the Assessment and Certification stage.

- Second, learning progression highlights the importance of feedback to learners. For a trainer to provide feedback and information to learners about their progress in learning or how well they are learning throughout the process, they should be equipped with tools to record and convey the feedback, whether in writing or orally to the learner. In the context of digitalization of processes, the mandated Student/Trainee Record Book (S/TRB) since 2011 may evolve in 2025 to a digital system or recording. Feedback mechanisms can now leverage technology to generate and analyze data in real time, allowing trainers to monitor a trainee's progress continuously and in a timely manner. It has yet to be explored if this can this be part of data collected and recorded by TESDA Training Management Information system (T2MIS) for each learner who enrolled, graduated, were assessed and certified.

The feedback provided by trainers reflects their awareness and evaluation of a trainee's progress in terms of cognitive understanding, demonstrated competency, and skill development for them to have reference on what to decide in managing a learner's progress. It serves as a critical source of information about the learning experience and shows how trainers interact with, understand, and guide their trainees throughout the learning process in TVET. Establishing a feedback loop and scheduling help ensure both quality assurance and the overall satisfaction of learners with the TVET program.

To Competency-Based Curriculum (CBC) Exemplars— which are detailed guides that outline the specific competencies required for various qualifications—and the Contextual Learning Matrix (CLM) may be enhanced to explicitly show learning maps i.e., progression of unit of competencies in each module for a qualification. As models for developing curricula that focus on the skills, knowledge, and attitudes necessary for effective performance in specific job roles, it is critical that they can illustrate the progression of a learner in a given curriculum, thereby provide learning or competency maps, which will provide an individual the knowledge, skills and values to be acquired in order to gain increasingly sophisticated levels of knowledge and skills in a particular TVET program or qualification.

On the concept of progression, the "assessment for learning" is considered as significant in order to determine the readiness of the individual on the decided next ladder for learning. In Philippine TVET, while assessment is strong in the "assessment as learning" and "assessment for learning", it can be observed that there is no existing mechanism for an individual and the TVET institution to determine the existing capacity of an enrollee prior to training, except for the Self-assessment Guide as a tool. Despite that the concept of "Recognition of Prior Learning" has been part of TESDA's policies—which allows individuals to undergo an assessment and demonstration of their existing skills acquired even outside the formal training in TESDA and be awarded a National Certificate (NC) or Certificate

of Competency (COC)-- the tools and delivery of how such RPL assessment is being effectively operationalized still need to be seen. For TVET, establishing tools to measure current competencies of the individual is critical in consideration of the diversity of its clientele, which covers those that are completers of basic education, baccalaureate degree, workers and even dropouts.

Learning progression, indeed, can play a vital role in enhancing and shaping policies related to TVET delivery and curriculum, ensuring that both trainers and learners achieve optimal learning experiences and outcomes. It supports the country's goals of improving workforce readiness, promoting sustainable career growth, and aligning educational outcomes with the needs of industries in an evolving economy. Also, it encourages a lifelong learning mindset by showing students a clear path for advancing their skills. Consequently, learning progression is inextricably linked to lifelong learning or heutagogy which considers the different types of learners, their levels of autonomy, capacity, and capability for self-determined learning rooted in andragogy. Through learning progression, trainers in TVET can develop progress charts in order to map entry and exit points of each unit of competency, its assessment criteria and methods, whether or not a unit of competency is a prerequisite for another unit of competency. Indeed, learning progression should be considered in the TVET sector in the context of multiple pathways for learners.

REFERENCES:

Australian Curriculum, Assessment, and Reporting Authority (ACARA) . “How can the progressions be used?”www.australiancurriculum.edu.au/resources/national-literacy-and-numeracy-learning-progressions/how-can-the-progressions-be-used/ (Accessed on October 2024)

Australian Research for Educational Research (ACER). “Transforming Learning Strategic Plan 2022-2027”. https://features.acer.org/acer-strategic-plan-2022-27/index.html

Battista, M. T. (2010). Representations of learning for teaching: Learning progressions, learning trajectories, and levels of sophistication. In Brosnan, P. Erchick, D. & Flevares, L. (eds.), Proceedings of the Thirty Second Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Columbus, Ohio, October, 2010.

Berry, A. Poluan, G. and Pradhika, C. “Online Training on Formative Assessment for Early Language, Literacy, and Numeracy (ELLN) in the Philippines Final Report. *USAID,* 2021. https://ierc-publicfiles.s3.amazonaws.com/public/resources/PH%20Formative%20Assessment%20Training_Final%20Report_FINAL.pdf

Carnegie Mellon University. “What is the difference between formative and summative assessment?” https://www.cmu.edu/teaching/assessment/basics/formative-summative.html

Commission on Higher Education. *CHED Memorandum Order No. 46, Series of 2012: Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education Through an Outcomes-Based and Typology-Based QA.* 2012, https://ched.gov.ph/wp-content/uploads/2017/10/CMO-No.46-s2012.pdf.

Council of Chief State School Officers (CCSSO) See link at https://ccsso.org/about

Department of Education. *General Shaping Paper: MATATAG Agenda.* Department of Education, 2023, https://www.deped.gov.ph/wp-content/uploads/GENERAL-SHAPING-PAPER-2023.pdf.

Department of Education’s Learning Progression and Learning Targets in K-12 Spiral Science Curriculum through Pedagogical Retooling in Mathematics, Language, and Science for Grades 4-6 Teachers

Department of Education Order No. 8, series of 2015. Policy Guidelines on Classroom Assessment fir the K to 12 Basic Education Program https://www.deped.gov.ph/wp-content/uploads/2015/04/DO_s2015_08.pdf

DepEd. “What is K to 12 Program?” https://depedtagbilaran.org/about-the-k-to-12-program/

Heritage, M. “Learning Progressions: Supporting Instruction and Formative Assessment.” 2008 https://www.michiganassessmentconsortium.org/wp-content/uploads/Learning-Progressions.pdf

Hess, K. “Developing and Using Learning Progression as a Schema for Measuring Progress.” 2008. National Center for the Improvement of Educational Assessment. https://www.karin-hess.com/learning-progressions

Kurtz, H. “Learning Progressions: Maps to Personalized Teaching.” 2015. https://www.edweek.org/teaching-learning/learning-progressions-maps-to-personalized-teaching/2015/11

Manual for Competency-Based Learning Material Development. Technical Education and Skills Development Authority (TESDA), 2021.

Popham, J. W. “The lowdown on learning progressions.” 2007. https://ascd.org/el/articles/the-lowdown-on-learning-progressions

Republic Act No. 10533 also knowns as Enhanced Education Act of 2013. Second Congressional Commission on Education. (2023). Green Paper: Basic Education Curriculum and Instruction. EDCOM 2. Retrieved from https://edcom2.gov.ph/media/2023/06/EDCOM2_Green-Paper_07-BASIC-ED-Curriculum-and-Instruction_230615.pdf

Second Congressional Commission on Education. (2024). *Miseducation. The failed system of Philippine education: EDCOMII Year One Report*. EDCOM 2. Retrieved from https://edcom2.gov.ph/media/2024/02/EDCOM-II-Year-One-Report-PDF-022924.pdf

TESDA Circular No. 02 s. 2011: Standard Operational and Administrative Policies in the Implementation of the Competency-Based Training (CBT) in TESDA Technology Institutions (TTIs). Technical Education and Skills Development Authority (TESDA), 11 Jan. 2011.

TESDA Circular No. 042 s. 2021: Implementing Guidelines on the Area-Based and Demand-Driven TVET. Technical Education and Skills Development Authority (TESDA), 22 Apr. 2021.

Tirol, Shiela L. "Spiral Progression Approach in the K to 12 Science Curriculum: A Literature Review." *International Journal of Education*, vol. 10, no. 4, 2022, p. 29. https://doi.org/10.5121/ije.2022.10403

Policy Research and Evaluation Division
Planning Office
Office of the Deputy Director General for Policies and Planning
Technical Education and Skills Development Authority
TESDA Complex, East Service Road, South Luzon Expressway (SLEX)
Fort Bonifacio, Taguig City 1630, Metro Manila

www.tesda.gov.ph
po.pred@tesda.gov.ph
(02) 817- 2675 | 893 -1966