Modeling Growth Capability—What is it?

Betty Hurd¹, Daniel K. Apple², Steve Beyerlein³, Wade Ellis⁴, David Leasure⁵, Cy Leise⁶, Thomas Nelson⁷

Abstract

Growth mindset includes the belief that one can improve life by responding with openness and creativity to opportunities as they arise. Growth capability is generated from increases in the effectiveness of responses to opportunities that expand and enrich one's quality of life. Growth development is the process of increasing transferable learning skills to enhance quality of life by increasing the value of all experiences, especially performances, which are related to one's individual quality of life. Growth capability is composed of 15 components that are the focus of this paper. Each component plays a distinctive role with respect to understanding growth capability as a construct and provides a foundation for assessment and reflection practices known to be essential for building capabilities. Underlying the 15 components are a set of 40 growth skills which are enumerated in the Appendix. For conceptual convenience, these 15 components are organized into four categories: self-concept, life planning, taking actions to pursue growth, and performance improvement. An expanded discussion of each of the 15 components focuses on three questions: What elements, processes, and opportunities are distinctive to the component? What roles do the concepts, insights, and practices related to the component play in improving quality of life? How can one validate the personal impact of pursuing the life changes suggested by the component? Examples of professional development activities centered on each component are also inventoried. Finally, methods are suggested for incorporating insights about each component into planning for daily growth.

Introduction

Growth capability is the ability to improve in each aspect of life, which leads to a greater life quality. For example, many of the activities in life are performances that one elects to undertake. Life activities can range from deliberate practice (such as trying to improve in an area like playing the piano), productive work (managing a project or writing a research paper), experiences (watching a Broadway play), or self-care time (meditation). Life activities can be used as opportunities for self-improvement to increase life quality through the intentional development of growth capability. In this way, every moment can be thought of as an opportunity to systematically increase the quality of one's life. As the complexity of life seems to increase, so is it critical that a person's growth capability accelerates as well. If this is done, the individual will be more able to process life moments to get out of life what one wants. If this is not done, life's challenges may lead to decisions and circumstances that decrease the quality of life.

Throughout this paper, the use of the word *capability* rather than *capacity*, is intentional. According to *Webster's Dictionary*, *capability* is the "power or ability to do something". Alternatively, *capacity* is the "maximum amount that something can contain". The approach this paper takes and the conclusions is draw are predicated on the idea of

a growth mindset that assumes the components of growth can be deliberately expanded through individual decisions and actions, often in response to suggestions from mentors.

Envisioning one's ideal self is an important tool for increasing growth capability and thus quality of life (QoL). Articulating one's current self-concept and focusing on personal development along a path toward one's ideal self is an effective strategy for elucidating growth aims. The construct of growth itself can be understood more fully by delineating and describing 15 components of growth that synergistically increase potential for increasing growth capability. The description of each component addresses three questions:

- 1. What elements, processes, and opportunities are distinctive to the component?
- 2. What roles do the concepts, insights, and practices related to the component play in improving quality of life?
- 3. How can one validate the personal impact of pursuing the life changes suggested by the component?

Another goal of the descriptions of components is to make clear how and why a component differs from others by bringing to light distinctive concepts, processes, insights, and opportunities for practice. An assumption underlying

¹ Madison College

² Pacific Crest

³ University of Idaho

⁴ West Valley College

⁵ University of Maryland Global Campus

⁶ Bellevue University

⁷ University of South Alabama

the analysis of growth components is that each adds substantively to a fuller conceptualization of growth defined as movement toward an ideal self. Vygotsky (1978) initiated the concept of "zone of proximal development", which emphases the importance of the timing of experiences and interventions for actualizing the developmental potential of a child. Similarly, expansion of growth capability requires that one operate in a kind of "ideal zone of development" characterized by optimal challenge conditions that are consciously selected. Staying within one's ideal zone requires self-regulation of thinking and behavior in the face of new opportunities. Improvement is likely to be limited if passivity rather than decisiveness characterizes the use of opportunities. The descriptions of the growth components provide windows into the many ways to gain awareness and conscious control of growth as a generalized capability for increasing quality of life. While each component can be considered by itself, insights from the interdependencies among them will clarify and strengthen how an ideal self can be envisioned that defines identity and aspirations beyond oneself.

Literature Review

Growth involves new knowledge, skills and experiences. Attention to self-concept and self-identity are critical to growth because these are motivators for personal transformation. Although these terms are frequently used, both in popular language and in scholarship, their meaning varies considerably. The *Cambridge Dictionary of Psychology* (Matsumoto, 2009) defines *identity* somewhat differently across social science disciplines but with a focus on how individuals understand themselves and are recognized by others. *Self-Concept* is one's holistic idea about all of who one wants to be (ideal self-concept) and who one is now including roles, relationships, and values. *Self* is usually considered central to personal identity and changes over

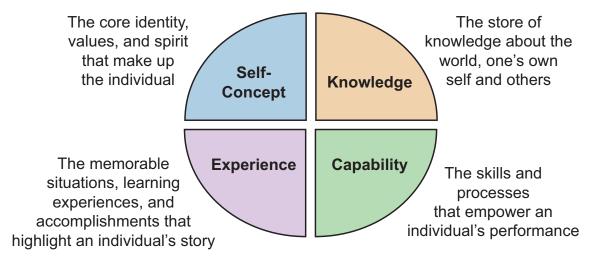
time. *Self* is defined more broadly to include all physical, emotional, and mental processes and activities as well as personal identity.

Composition of Self

The exploration of self involves multiple perspectives related to the questions "Who am I?" and "Who can I be-come?" In general, *self* is a comprehensive concept that incorporates identity and self-concept, both of which are a person's experiential point of reference in each situation and over time. The Cambridge Dictionary of Psychology (Matsumoto, 2009) defines *idealized* (*ideal*) self as one's beliefs or impressions about the way one would like to be, with the implication of a motive to improve one's present self. One's self-concept is well-founded to the extent that it is supported by corresponding knowledge, skills, and attitudes. When seen as a journey, life involves the continual evolution of one's real self.

The current real self is who one is now. The next self is the vision of the real self in the next time period. The ideal self is the vision of one's ideal future self which directs efforts over the long-term. These three views are in competition with a fourth view which is the ought self. The ought self consists of alternative challenging visions of one's next self (Apple & Ellis, 2015), defined by strong social influences, including those who care about the individual. Many situations provide opportunities for self-growth, but a person must own the experiences and independently develop their individual self. The normal challenges of life, including conflicting emotions (i.e., cognitive dissonance), motivate growers and self-growers to place value on the accuracy of assessment feedback. Although the aim is always to create meaning for oneself that is as

Figure 1 Aspects of Self (Real and Ideal)



"objective" as possible, it is equally important that one accept the inescapable subjectivity of personal perspective that characterizes the nature of meaning for each unique life.

The model of self that is assumed throughout this article is illustrated in Figure 1. It includes self-concept, knowledge, capabilities, and experience. Self-concept encompasses values, identity, self-image, needs, and views of what constitutes quality of life. Knowledge is the collective working expertise brought to each and every situation. Capability consists of learning skills brought to each and every life challenge or situation. *Experiences* consist of the collection of life moments that may be leveraged for present and future situations. Realizing that one's current self-concept is subjectively created adds to one's motivation to discover more about what is possible for becoming one's ideal self. Critical to Figure 1 is the differentiation of knowledge from capability. Knowledge is content and context-focused, whereas capability is process focused and applicable to a broader range of life situations. Accordingly, capability is associated with maturation in use of elements in the Classification of Learning Skills (CLS) (Leise et al., 2019). Self-growth skills are explored in what can be considered a companion article, Self-Growth Capability Components and Their Impact on Growth (Apple et al., 2021).

Evolution of Self

Carl Rogers (1951) contributed terminology to the development of the self. He called the real self the self that one becomes when one is actualizing, receives positive regard and self-regard, and has one's needs met. He portrayed the ideal self as the one that develops in response to societal and others' pressure on the individual who is unable to assert one's real self. In contrast, this paper uses the terms as defined by Boyatzis and Akrivou: the real self refers to one's self-concept at prior, current, and future times. The ideal self is an imagined self-concept that one wants to accurately develop (2006). Roger's ideal-self is what Boyatizis and Akrivou refer to as the "ought self" (2006).

Figure 2 charts the change of self over time. Across life's journey one's real self is optimally aligned more and more with one's ideal self. Growth and mentoring skills underlie the planning, doing, and assessing line segment between the current self and next self. The strengths of the current real self are used to realize the next opportunities, leading to the next real self. The optimal growth plan increases the time one (as their real self) spends inside their ideal zone of development (IZD). As a result, one minimizes that portion of time (aspects of real self) that one spends in the non-ideal zone of development (NIZD). Time spent in the NIZD impedes progress towards one's ideal self. In summary, optimal growth is the maximal adoption of new strengths and the minimal loss of old strengths in parallel with maximal loss of old inhibiters and minimal adoption of new inhibiters. As the real self evolves, so is the vision of the ideal self updated.

Components of Growth Capability

This article posits 15 components of growth capability, grouped into four categories. Each category is discussed briefly here, then more fully after Table 1. Category 1,

Figure 2 Incremental Growth and Self-Growth during a Life Journey



self-concept, is the set of beliefs about oneself, essentially one's answer to "Who am I now?" and "Who do I wish to be?". Understanding oneself at present and one's desired future state is helpful in progressing towards that future state, the ideal self. It has three components, selfawareness, envisioning of the ideal self, and clarifying life quality. Category 2, planning one's life, is the articulation of the intended journey from the present self to the ideal self, and is comprised of a life plan, life goals/milestones, and broad criteria. Category 3, growth, is the life process of intentionally building and strengthening the capabilities that enable movement towards one's ideal self. It is comprised of growth mindset, growth skills, classification of learning skills, and growth plan. Finally, Category 4, improving performance, is the act of developing one's knowledge, skills, and abilities so that they come to reflect the ideal self-one is working towards. It is comprised of the Methodology for Developing Performance, methodologies, the systematic use of assessment, professional characteristics, and quality decision-making. Table 1 delineates these four categories, and identifies the components of each.

In the subsections which follow, each component of growth capability is defined, the impact on growth capability (individually and in concert with the other growth capability components) is described, and its significance is validated.

Category 1 Self-Concept

Self-Awareness

The individual's ability to know who they and who they want to become is the basis of their growth and self-growth. Self-awareness can be developed and expanded in practice to strengthen self-knowledge.

Self-awareness can be divided into internal and external self-awareness, according to Eurich (2018).

Internal self-awareness is what one believes about oneself. It is formed from processing one's experiences into explicit awareness. It includes the narratives that one tells about oneself as well as the judgements about one's capabilities and traits. Self-awareness includes the values that one recognizes in oneself and awareness of one's desires. One's external self-awareness concerns are what one believes others believe about oneself. External self-awareness includes beliefs about relationships, others' appraisals, and social or group identities.

Quality of life, just like any area of quality, is subjectively defined. The definition and meaning of life come from the awareness of what life offers. The more selfaware one is, the more meaning and value they can experience in life and, with an appreciation of the quality of life, increase that quality in the areas that have the most meaning.

Eurich (2018) warns that not validating one's internal and external self-awareness can lead to ineffective or slow growth and less-than-satisfying or even dysfunctional relationships. A person must develop and apply their skills to validate self-awareness, including critical self-reflection, external assessments, experimentation, and validation from others. Experimentation includes purposefully seeking growth experiences, social or otherwise, that help one develop self-concept and validate or repudiate one's self-awareness.

Envisioning One's Ideal Self

Self-awareness includes one's desires for oneself and one's conditions. The real self, as defined by one's validated self-awareness, can be transformed into one's ideal self, an imagined real self in a desirable future that one wants to achieve. Boyatzis and Akrivou describe the ideal self as comprising the desired future,

Table 1 Categories and Components of Growth Capability

Category 1	Category 2	Category 3	Category 4
Self-Concept	Planning One's Life	Growth	Improving Performance
Self-Awareness Envisioning	Life Goals / Milestones	Growth Mindset Growth Skills	Methodology for Developing Performance
Ideal Self	Life Plan	Classification of	Methodologies
Clarifying Life Quality	Broad Criteria	Learning Skills Growth Plan	Systematic use of Assessment
			Professional Characteristics
			Quality Decision- Making

hope (including self-efficacy and optimism), and a self-awareness of one's core identity, which includes values, strengths, traits, and dispositions (2006).

Boyatzis and Akrivou further describe the difficulties of achieving one's ideal self without sufficient motivation and hope (2006). The strength of the imagined ideal self therefore needs to go beyond traits and other attributes and include a comprehensive imagining of the future and all its benefits, including emotions, relationships, health, accomplishments, and other desirable conditions.

For hope to be sustainable, one must experience progress, and have a strong growth mindset and the resilience to recast failures and difficulties as surmountable obstacles that help one develop. A focus on developing needed capabilities can better prepare one for hope-sustaining successes. In designing one's ideal self, one determines the working expertise needed, and the educational plan supporting its development and continual expansion through lifelong learning. Part of envisioning one's ideal self is determining the growth capability one desires to carry out their life plan. As part of envisioning, one makes life choices aligned with one's life plan—its past, present, and future experiences that increase QoL.

Oettingen cautions that only envisioning the ideal self can cause one to consider it accomplished and therefore undermine the commitment to realizing it (2015). She recommends also identifying the obstacles to fulfillment to ensure that one understands the journey and what hardships will be faced. In Oettingen's approach, these predicted obstacles become growth opportunities. She refers to the underlying principles of mental contrasting with declared intention, and provides the mnemonic WOOP: Wish, Outcome, Obstacle, Plan (2015). The approach aligns with the growth process and reinforces the need to validate progress and identify growth opportunities aligned with the ideal self.

The movement from real self to the next real self must illustrate through reflection that one's next real self is closer to one's ideal self than one's current real self. Then the calculation can be made as to how much movement has occurred for the growth investment and time expended to determine if the progress was sufficient to get closer to one's ideal self. Finally, one can ascertain the expansion that one's next real self would desire in one's next version of one's ideal self.

Clarifying Life Quality

In each of their approaches to development of selfconcept, Rogers (1951), Erikson (1968), Loevinger and Wessler (1970), and Kegan and Lahey (2001) all argue for a continuing evolution of self-concept that leads from a self-focus and limited understanding of others to a more fulfilling, integrated, and actualized life. With sufficient independence and self/other awareness, what one desires most from life is determined individually.

It is up to the individual who wants to develop to identify life's qualities and determine their relative importance. A compelling vision is necessary that is both holistic and definable in terms of goals. Developing personalized scales and weightings for each dimension's significance will allow an individual to track their own growth development and improvement in QoL, which will reinforce motivation and sustain hope.

Clarifying quality of life (perhaps by creating a Quality of Life Index) helps one align each activity and decision so that the outcome leads directly or indirectly to a greater QoL. Due to evolving consciousness that comes from self-concept development, one's vision of life quality may evolve. The degree that one's values, skills, dispositions, and desires will evolve depends on an individual's development and the individual overcoming immunity to change (Kegan & Lahey, 2009).

One can compare a holistic evaluation of QoL change (e.g., was this a better year than last year, and if so, why?) with items from the QoL Index to verify that the movement is consistent with one's QoL. Exploring gaps in QoL and developing a growth plan to address these gaps should produce the movement in the dimension of QoL that is consistent with the targeted efforts.

Category 2 Planning One's Life

Life Goals and Milestones

To create greater life meaning, life goals should align with life purpose and scope (recognized in one's ideal self) to direct time, energy and resources to expand meaning as well as accomplishments. Milestones measure progress toward one's life goals. This component aligns with Covey's habit of "beginning with the end in mind" (1989).

Life goals and milestones apply across a wide range of venues and circumstances. They should produce a significant increase in one's quality of life and benefit one's community. These goals should be SMART (S-specific, M-measurable, A-achievable, R-realistic, and T-time bound) with a few refinements. *Specific* refers to what the individual wants to realize. *Measurable* refers to how one will monitor their progress toward reaching this realization. *Achievable* refers to something that is

possible with a growth mindset and use of growth capability. *Realistic* refers to a logical growth plan for each goal that is well-conceived. *Time-bound* refers to when the individual wants to accomplish it. However, they should also be SMARTER goals, with E for exciting and R for recorded (Taylor, 2017). *Exciting* refers to energy and engagement surrounding one's chosen pursuit. *Recorded* refers to writing down one's goals for ongoing reference rather than just thinking about them. Targeted milestones allow the individual to establish annual benchmarks in the pursuit of their life goals.

Life goals and milestones also give coherence to one's life experiences and focus one's attention as well as energy on activities that are meaningful. Life goals and milestones act a gauges to help measure the quality of life that one is seeking. They provide qualitative observations about one's progress and need for modification in life direction. Life goals also help in composing a life plan and broad criteria. Interaction between life goals and milestones with a life plan and broad criteria builds quality into the life journey itself, strengthening actions to realize one's ideal self.

Life goals and milestones provide scaffolding for writing an annual growth report that documents new knowledge, skills, and perspectives along with new performance capabilities. (Hurd, 2007). Successfully attaining these also helps celebrate achievements aligned with one's life vision and take stock of progress on one's life journey. Making progress in attaining life goals and milestones must provide evidence of an improved quality of life.

Life Plan

The strategic plan of how to live one's life is the key to staying within the individual's ideal zone of development in one's life journey. The individual's life plan is the glue that connects many of the growth capability components. A life plan is an individualized tool to optimize the overall quality of life.

A strategic life plan has key elements including educational plans and advancements in life-long professional development, career choices, place to live, who to share life with, and the role of family, friends, and community. Additional elements of a life plan include trade-offs that one is willing to make, passions to pursue, and adventures to explore. This component aligns with Covey's habit of "putting first things first" (1989). The life plan identifies characteristics and behaviors that can help address life's challenges and opportunities. It should include analysis of risk factors that could impede your progress (Horton, 2015) as well as performance characteristics (Apple et al., 2018)

that one wants to emulate. The life plan should be synergistic with the individual's life vision, broad criteria, life goals, and milestones, helping operationalize these in day to day activities.

The life plan is at a macro level and this informs the micro operational plan that allows one to live in the moment as well as the quality of life that the moment provides. It allows one to make quality of life decisions more efficiently and effectively, especially when to say yes and no to numerous life opportunities. The life plan suggests ways of being, scripts, and contingencies to constructively and positively address life challenges. It supports one's life vision by contextualizing broad criteria and life goals/milestones, highlighting key performance areas aligned with one's life goals and suggests developmental areas to strengthen daily decisions. It is a general facilitation plan for maximizing one's quality of life through application of a growth mindset.

The extent to which the life plan is regularly revisited and reflected upon is a measure of its internalization as a compass for self-direction and personal growth. An analysis of annual time spent on different activities, efficiency in realizing milestones, and how performance capabilities are elevated will illustrate how effectively one's life plan is adopted as well as what changes are needed for future cycles of growth/personal development. When reflecting on the change in quality of life, contributions can be directly connected with specific sections of the life plan.

Broad Criteria

The complexity of life causes many to be lost in the forest among the trees—the opportunities and challenges of daily living (the trees) mask any alignment of life mission to life vision (the forest). It is here that broad criteria are most helpful, as they concisely integrate one's values, needs, and life qualities to provide performance criteria for living one's life (Utschig et al., 2019). This component is a distillation of expectations for one's life. These are succinct performance criteria for operationalizing one's life plan. It is much more uplifting to frame these criteria in terms of virtues that bring happiness rather than avoiding competing vices. Seligman's PERMA model provides a good recipe for broad criteria. They should reflect Positive emotion, Engagement, Relationships, Meaning, and Achievement (2011). Knowing one's broad criteria and using these criteria as a beacon for making life's decisions is a key part of sustaining personal growth. As such, this component of growth capability aligns with Covey's habit of "being proactive" (1989).

Broad criteria are the basis for synergizing key values, needs, and life qualities. They ensure integrity in the moment, cut through daily confusion, and collapse dozens of dimensions of QoL into a manageable set of decision rules. These criteria are a compass for sensing when you are in your ideal zone of development. Beginning each day with the intention of seeking out growable experiences and opportunities to practice specific behaviors that are congruent with your ideal self means that you will be better prepared to see situations where these can be deployed. Ending each day with the individual assessing how they applied their broad criteria can provide insights about responding to future situations that will leverage desired growth as well as unproductive behaviors to be addressed/avoided.

Broad criteria help the individual to maintain their essence (integrity), no matter the situation, by giving guidance on walking the walk of their values and helping them move in a direction that leads to greater Quality of Life. They also serve as a qualitative measure for short-term and long-term movement toward or away from the ideal self.

Category 3 Growth

Growth Mindset

Growth mindset includes the belief that one can successfully discover and use strategies for improving and succeeding—and includes the belief that this takes substantive effort. Consciousness of growth potential can often be expanded with experiences and the positive presumption that the individual is not as limited as they may have assumed.

Yeager and Dweck summarize the theory development and application research for the distinction between fixed and growth mindsets (2012). An individual with a fixed mindset believes that personal attributes such as intelligence or personality are stable—they cannot be changed. Hong et al. (1999) and Blackwell et al. (2007) document how carefully designed interventions that helped students switch to a growth mindset resulted in outcomes such as better persistence under challenge conditions. Some critics (e.g., Burgoyne et al., 2020), have questioned the robustness of growth mindset because statistical effect size for brief interventions is relatively small. However, the fuller interventions reported earlier by Dweck and Leggett (1988) and also those used by contemporary process educators (Apple et al., 2018) do serve to reliably and substantially change mindsets.

Mindsets vary because of the multiple experiential inputs that form or channel development and personal

learning. Dweck (2017) presents a motivational model to explain mindset development in terms of needs and related goals that emerge and become patterns over time. Individuals are continually motivated to balance attainment of goals to meet varied needs such as trust, control, self-esteem, and self-coherence. Dweck draws upon contemporary cognitive science to propose that patterns of goal-relevant beliefs, emotions, and action tendencies (BEATs) explain why individuals have varied goals, even in similar situations. This same cognitive science also proposed that personality traits emerge and become powerful elements in habits and mindsets because repetitive choices become correlated with traits. These personality correlates can be positive (e.g., being conscientious may improve planning and preparation for performances) but they also can be negative (e.g., being introverted may lead to a belief that one is a poor public speaker). One reason Dweck argues that beliefs are the most important part of BEAT representations is that two dimensions of the world, goodness/badness and controllable/uncontrollable, focus attention throughout developmental experiences. Someone who comes to believe that the world is difficult to control may not take action even with competencies already available, which is the definition of a fixed mindset. Another reason why beliefs are important is that they mentally represent a large array of life choices and goals. Clearly, gaining a growth mindset has significant implications because becoming a grower includes conscious awareness and openness to many new ways of increasing QoL that become possible when beliefs, emotions, and action tendencies (BEATs) are validly interpreted for their implications for creating rather than impeding the development of new capabilities (Dweck, 2017).

The growth mindset component develops congruently with many of the other 14 components of growth capability that have been identified in PE scholarship and practice (Apple et al., 2016; Leise, 2020). Additional mindsets such as being future-oriented, positive, performance-oriented, and assessment-oriented are aligned with a growth mindset and are consistent with the understanding of growth as a complex process. Increasing growth mindset increases one's efficacy in performing, growing from experiences, meeting psychological needs, and achieving goals in an open, future-directed manner that will increase the quality of life. Growth mindset is validated when one recognizes growth opportunities and reflects on past experiences to articulate how growth occurred and how it was consciously experienced. Responding to life's growth opportunities requires continual expansion of one's growth consciousness, capabilities, as well as minimizing time in the non-ideal zone of development. When one is stuck it is critical not to allow growth mindset to stay in relaxation mode; instead, such times are exactly when it is essential to bring to bear relevant capabilities such as changing one's reaction to the moment. This can be done by, for example, stepping back to patiently develop an action plan with smaller but realistic steps for moving ahead.

Classification of Learning Skills

The Classification of Learning Skills (CLS; Leise et al., 2019) is a rich resource of 509 learning skills that must be developed and improved through experiences that include assessment of the quality of their use in specific situations. Strengthening the skill of prioritizing, for example, can lead to improvements in the consideration of about what is most valuable to work on immediately for meeting one's present goals.

Each learning skill is described as a positive capability that can be strengthened without limit and can be selectively applied to amplify four critical processes: knowledge creation, learning to learn (L2L), performance development (growth), and self-growth. Each learning skill is classified into domains (cognitive, social, affective, and assessment/evaluation of quality), process levels, and clusters that make the organization manageable and more useful (Academy of Process Educators, 2019).

Knowledge creation (learning) is the process of establishing one's knowledge, in an academic discipline, for example, and raising the level of use of the knowledge, such as described by Bloom's Taxonomy of Cognitive Objectives (Bobrowski, 2007). Learning to learn (L2L) is the capability to self-regulate learning in order to mitigate risk factors that impede learning (Horton, 2015) and to strengthen positive and professional characteristics (Apple et al., 2018). Growth occurs as individuals master a set of 40 growth-oriented learning skills that were identified through research on how to effectively facilitate Learning to Learn Camps (LLC) and college success courses (Apple et al., 2015). As one strengthens working expertise and learning skills, knowledge and capability can be applied to every area of life to increase its richness and quality.

Progress with learning skills is optimized through use of a performance mentor who can recognize and facilitate performance development by helping an individual increase those capabilities most relevant to QoL. Many of these learning skills have correlated performance measures or scales (Apple et al., 2018) that can help an individual recognize increases in capability with that

learning skill. With reflection and self-assessment, the measurement and impact of improved learning skill usage on quality of performance and its QoL can be determined after each life experience.

Growth Skills

Not all learning skills are equally powerful; some are focused exclusively on learning. A subset is more strongly aligned with boosting growth capability that has a direct connection with improving the quality of life. These are inventoried in Appendix A. Another subset is associated with mentoring and self-mentoring that, in turn, activate and strengthen specific growth skills. These are the subject of a companion article on self-growth capability.

Having an identified set of 40 growth skills is a benefit for educational practice because the skills can be embedded into curriculum, facilitation, and assessment—as modeled by Process Education Learning to Learn Camps and academic recovery courses (Apple et al., 2020). These growth skills were selected because they meet a majority of the following criteria:

- They are used in following the Methodology for Developing Performance
- They are often cited in personal growth plans
- They stimulate development of other learning skills
- · They positively impact quality of life
- They play a role in enhancing a growth mindset
- They are often exercised in conducting assessments
- They are commonly used in making decisions based on preplanned criteria

Strengthening of a growth skill occurs when growth opportunities and experiences provide an opening for real-time development of new capabilities related to one or more of the growth skills. These increased capabilities, in turn increase quality of life. Performance mentoring is often a key resource needed to increase the individual's awareness and readiness to assertively move forward in building growth capabilities.

Learners must become aware also of the differences between their subjective perceptions and the potential for more objective insights if they seek accurate assessment and evaluation. Performance mentors can use the Methodology for Developing Performance to guide their interactions with learners and mentees as they work together on developing new growth capabilities

that will have present and future impact on QoL.

Growth Plan

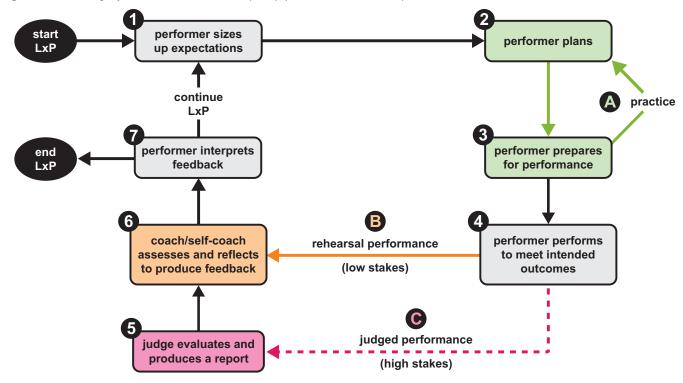
Individualized planning, such as the life vision and growth plans used in Process Education practice, will have higher quality to the extent that logical patterns similar to those used for scientific ends are applied by specifying outcomes along with strategies, criteria, and measures relevant to personal QoL. The purpose of planning is to project actions into the future in order to attain hoped for outcomes. Dewey comments that preparation for "...possible action in situations not as yet existent in actuality is an essential condition of, and factor in, all intelligent behavior" (1938). Although Dewey uses philosophical language to establish meaning as he intends, his analysis contrasts scientific with individual life planning. Scientific ends must be planned according to research logic by carefully aligning language and operations so anyone with research expertise can attain the same outcomes.

Successful planning requires effective alignment of the conditions, strategies, resources (especially capabilities), and timelines with the intended goal or outcome. In life planning, the criteria for favorable outcomes are related to a longer-term horizon and are validated against broad criteria (see the discussion in category two) based on attitudes, values, and the personal meaning of life. The scheduling of time is a critical factor because progress is unlikely without the accountability

required in meeting deadlines or specific dates. An assessment system is also an essential ingredient in accountability because level of quality of performance must be matched to one's QoL aims. Growth planning is a subset of life planning with an intermediate time-frame; the goal is to systematically increase the growth capabilities (represented by the set of 40 growth learning skills) judged to be of import for predictable increases in immediate QoL, (e.g., gaining expertise with a new educational practice). Growth planning will be more effective if aligned with a life plan that articulates longer-term intentions such as milestones of personal development and career success.

Clearly, the quality of any plan depends upon thoughtful preparation, including reflection on growth moments and experiences. The immediate purpose of growth planning is to increase and motivate progress with the set of growth skills. Growth skill development must include acquiring knowledge about how each skill can increase the capabilities that are in one's plan. L2L is also essential because it is the process that leads to reduction of risks and impediments, increase of professional characteristics, and strengthening of performance quality (Apple et al., 2018). Growth occurs when capabilities produce the desired QoL outcomes. Becoming more conscious of how growth capability development has occurred from one's growth moments and experiences is attained through careful reflection that includes elaborated insights about





how to improve not just a single performance but the planning of methods, strategies, and quality of assessment for future growth experiences. Even though the growth capability of discernment of previously unrecognized obstacles and interpreting them correctly may not be developed as fully as one wishes at any point in time, it is a path to truth about oneself and about the validity of how one has chosen to plan growth that will improve and expand QoL.

Category 4 Improving Performance Methodology for Developing Performance (MDP)

Life is a set of performances (Nelson et al., 2020). We choose what performances matter in our life and their quality (Jain et al., 2020). As one's performance improves in life, for example, basketball players who play professionally or as an avocation will describe with passion how, at critical times in their lives, their QoL improved as their game improved. The MDP effectively integrates the performance mentor into performance development and strengthens the performer's process for self-development.

Performance improvement starts with developing a systematic process. The Methodology for Developing Performance was created from Leasure's LxP model of Learning by Performance (Leasure et al., 2020). The seven stages of the LxP model are shown in Figure 3. The methodology has seven stages and 20 steps that support the performance mentor's efforts as well as the performer's efforts in self-mentoring. The stages include the decision of whether to take on an opportunity, clarifying the stakeholder's expectations, planning and preparing for the performance, performing, being evaluated, assessing the performance and integrating feedback for future performance. Growth skills given in the Appendix are organized according to these seven stages.

The way to enhance QoL through performance improvement is through effective use of the MDP, as the life journey is supported as a synergy among the life plan, the growth plan, and the MDP. The movement between one's real self towards one's next real self is strengthened in the targeted life performance areas. The performance areas of passion where performance improvement is the most exciting are signs that the individual is in their ideal zone of development, especially when practice is very enjoyable and adds to QoL.

When one discovers that they are no longer valuing performance improvement in a specific area, it is a sign that too much time is being spent outside their ideal zone of development. A performance mentor relationship provides an excellent perception check of performance improvement with the assessments they provide. A second check is the use of the developed performance criteria (Utschig, 2020), Step 6, throughout the rest of the methodology to review the effectiveness of each step. A third means is an effective assessment of each step after its execution using these performance criteria.

Systematic Use of Assessment

Evaluation is detrimental to improvement and growth. If a shift from evaluation to assessment is not made, growth and its impact on QoL is very limited. Therefore, shifting an evaluation mindset and practices to an assessment mindset and practices is how this impediment can be addressed (Utschig & Apple, 2009). By transforming evaluation situations into assessment opportunities, one creates more growable moments by changing their approach to these opportunities (Pacific Crest, 2020).

During each day, an individual can assess products produced, performances (one's own and others), processes and systems, teamwork, culture, plans, and general efforts. A description of assessment performance allows one to understand the underlying assessment process (Nelson et al., 2020), the mindset, supporting learning skills, and situations that best fit assessment, self-assessment, and team assessment. The key areas to help people increase assessment include improving criteria, being objective in observation and capturing data, providing analysis to increase meaning and valuing all components equally (Baehr & Beyerlein, 2007).

A common tool for assessment is assessing for Strengths, Improvements, and Insights, often called SII assessment (Wasserman & Beyerlein, 2007). This type of assessment practice includes statements about the strengths of a performance and why they are strengths, areas that could be improved and how they could be improved, and insights about interesting aspects of the performance that can improve the understanding of the performance area. As each area of life improves, so does QoL. Each time strengths are used in new situations, the QoL has increased. Every time a QoL area can be improved, QoL improves. Each new insight brings about greater growth consciousness that can be used throughout life activities.

The key to supporting growth is to make assessment a way of life. For example, assessment is used to improve the use of the methodologies, quality of life decision-making, and the use of the MDP. Individuals can seek feedback from others, assess their own performance, and provide feedback to others to improve and grow.

By improving assessment skills, the power of this component's contribution grows and one of the common techniques is to assess the assessments of others. With the improvements in growth skills, the quality of assessment will improve. The greater the quantity and quality of assessment, the more improved and enriched the QoL becomes. Effective assessment can be used to keep the focus on one's real self and how to improve it within the ideal zone of development (Desjarlais & Smith, 2011). One grows this component by realizing how important quality is and how assessment is a way of continuously focusing on quality.

Methodologies

A methodology is a model of the abstract generalization of a specific process created by an expert to assist novices on their way to becoming experts in the performance of that process (Apple et al., 2016). Almost every performance has an underlying process that can be modeled by a methodology (Nelson et al., 2020). The stronger the process framework of a performance, the stronger the performance can become. A methodology is a great tool for aligning specific learning skills to steps in the methodology, for assessing performance, building meta-cognition of the performance, and for performance development and self-mentoring of performance improvement (Leasure et al., 2020). As the processes used in life performances are improved, so is the QoL because the individual becomes more adept at working through the performances that use these processes. This growth component can be enhanced by expanding the range of methodologies that are used and connecting the learning skills that are most prevalent across methodologies to focus on those skills.

Methodologies can contribute to one's life journey by providing step by step ways of improving processes used in developing performances, the learning process, and a growth plan (Apple et al., 2016; Jain et al., 2020). As methodologies for these processes are used, the ability to describe the real self and to move toward the ideal self in the ideal zone of development increases (Apple et al., 2020).

While there is no methodology for determining when one is in or out of the ideal zone of development, there are many methodologies that can assist in making that determination. Examples include methodologies for planning, preparation, performance development, self-assessing, and reflecting. The Methodology for Developing Methodologies can be used to create new methodologies (Smith & Apple, 2007). There are techniques for learning and internalizing methodologies as well

as rubrics to measure effective use of methodologies (Leise & Beyerlein, 2007). To learn a new methodology, seek out an example of its use, analyze how it was used, apply it in a similar context, and use the description of each step to apply the methodology. When completed, assess performance after each cycle of the use of the methodology to improve use of the methodology.

Professional Characteristics (PC)

There are common characteristics that offer value to every professional because they help to mitigate a set of common risk factors (Apple et al., 2018). These characteristics, found in The Professional's Guide to Self-Growth (PGSG), are universal and are the target for continuous improvement within growth plans directed towards specific performance areas. These professional characteristics are derived from the work on key learner characteristics that transform students into quality collegiate learners (Apple et al., 2016). Risk factors are a major impediment to growth development; self-limiting thinking, for example, could hold back growth significantly but by improving professional characteristics in thinking critically, contextualizing, generalizing, being inquisitive and metacognition one may begin to address the limitations of one's thinking.

The 50 professional characteristics are organized into sets of five in the following ten categories:

- Life-Long Learning
- Learning Processes
- Self-Growth Mindset
- Professional Mindset
- Professional Strategies
- Productivity
- Getting Outside One's Comfort Zone
- Grit
- Interpersonal Skills
- Professionalism

Many of these characteristics appear in job advertisements, performance appraisals, daily expectations of peers, and are widely known as characteristics of success in any profession. The Big-Five personality model research supports that these characteristics contribute to professional and life success (Barrick & Mount, 1991; Komarraju et al., 2011). *The Professional's Guide to Self-Growth* provides 52 case studies of how individuals addressed specific risk factors with the development of specific professional characteristics. This led to a mapping presented in PGSG of which professional

characteristics would enhance growth through the mitigation of inhibiting risk factors.

The component of growth capability plays a critical role in the Self-Growth Methodology during Stage 5 as it becomes the focus of which professional characteristic will be developed to enhance the selected performance by mitigating the most significant risk factor limiting current performance. This is especially important during performance development and a significant contribution to overall growth capability. This framework is universal in that anyone can use these 50 characteristics and their development as the basis for a journey of growth. These 50 characteristics support almost every other growth capability component's development, progresses a person's self-concept and self-knowledge, and help to determine whether a person is in their ideal zone of development or not.

Each of these characteristics is an identified outcome of the Self-Growth Institute which has demonstrated that, with the help of *The Professional's Guide to Self-Growth*, these characteristics can be systematically developed and prioritized by their impact on the risk factors. For students, the Psychology of Learning and Success (Apple & Leasure, 2018) and *Learning to Learn: Becoming a Self-Grower* (Apple et al., 2013) are two curricula designed to build these characteristics.

Quality Decision-Making

In life there are numerous opportunities where decisions must be made-often decisions that will frame the future. The QoL decision-making component contributes to enhancing performance and increasing growth capability in two ways (Sutherland & Till, 1993). On the micro level, it uses growth capability during every hour of life activity to see how life can be improved immediately as well as the next time one engages in this type of activity. On the macro level, it is the decisions that will alter one's life path and its future quality. It is the glue that integrates all the other components. Without it, these growth efforts may unravel leaving a person with less quality. The other 14 components of growth capability can be easily undermined with poor choices. Choices, as well as their consequences and complicating ramifications, can easily set back quality significantly. Rushing to an appointment that one is late for by driving too fast can lead to an accident which then has a major impact on QoL. On the other hand, QoL can be increased significantly when positive decisions are built upon one another.

Growth capability is potential, while QoL decisionmaking is the action of applying the growth capability to improve QoL. QoL decision-making is the ability to flexibly move from hourly micro decisions (time usage, selection of alternatives, to find/use/document resources, or collaborate) to the macro decisions such as a large purchase, career path, relationships, and maintaining current investments. By combining two definitions—one for decision-making and the other for quality of life (Merriam-Webster, n.d.)—we may construct the following definition for *QoL decision-making*: "the action or process of making decisions, especially important ones to increase the standard of health, comfort, and happiness experienced by an individual or group". Many characteristics are part of the effectiveness of QoL decision-making (Shogren et al., 2018):

- Ownership of the decision
- Alignment to criteria
- Visualization of consequences from good to bad outcomes
- Randomness that effects outcomes/results
- · Positive mindset
- State of environmental conditions
- Analysis of the decision
- Assessment of the decision effectiveness
- · A strong process

Friedman (1997) argues that QoL decision-making should be rational rather than impulsive; it should be reflective rational, holistic decision-making process based upon effective problem solving addressing personal life quality.

Development of QoL decision-making can benefit from a weekly reflection based upon one standard question; "What are examples of QoL decisions gone bad this week and when did a quality decision produce good quality?" The goal of this investigative reflection is to discover and clarify tips on how to turn poor decisions into good life decisions. This investigation will start to answer other questions such as, "What do I wish I had decided?" and "What consequences could I have avoided?" and even, "Why add heartaches and troubles when I could enjoy the increased quality of life instead?"

On a life journey, it is useful to build a compare and contrast chart to help differentiate the good decisions from the poor. The decisions made have many control points such as broad criteria, growth plan, life goals, and life plan to determine whether a decision moved the life journey forward, sideways, or backwards. It is important that systematic assessment of the decision-making process and decision's outcomes are done to

use these other control points in the consideration of the self-assessments. With this perspective and a QoL framework, one can use their broad criteria to guide actions, efforts and paths chosen to increase QoL. In the reflection, one should consider the environment and conditions surrounding one's current situation. Are they growth oriented? Did they become a better version of themselves because of this decision? Did they grow other components of growth capability because of this decision? If not, what should one decide differently next time?

Examples of Growth Capability in Action

The previous justification of the growth capability components illustrates how important they are to growth and development, whether they are done with external help from a performance mentor or self-growth coach or by oneself as a self-grower. The efforts of Process Educators over the last 25 years have been about increasing growth capability within learning experiences (Apple et al., 2016). While some of the areas of growth capabilities are relatively new in Process Education, many have been direct efforts of major processes within Process Education areas such as instructional design, professional development, teaching and learning practices, assessment systems, culture, and institutional systems, processes, and structures. The incorporation of intent to empower growth development is evident in a variety of previous curricular and faculty development materials. Five specific examples are:

- Foundations of Learning-based Learning to Learn Camps (Redfield & Lawrence, 2009; Apple et al., 2015)
- Learning to Learn: Becoming a Self-Grower and Academic Success Institute Curriculum (Apple et al., 2013; Apple & Leasure, 2018; Wenner et al., 2019)
- Self-Growth Community (Academy of Process Educators, 2021)
- Self-Growth Institute (Pacific Crest, 2020)
- Teaching Institute (Pacific Crest, 2016)

Table 2 (available on the following page) delineates where specific growth capability components have been observed and/or used in Process Education-related developmental activities.

Through scanning the activities underlying these professional development events and generalizing strategies for pursuing each of the components of growth capability, the authors assembled Table 3, which consists of 15 components, with tips, that help one get a firm start towards improving their QoL (i.e., a synthesis of what one could get if

they went through these professional development experiences). For each component a purpose is summarized, a widely applicable method is suggested for harnessing the power of that component, and discernment questions are offered for validating the impact of that component.

Future Research

A major issue in Process Education has been the differentiation of knowledge from growth (Leise, 2007), including what is classified as knowledge and what is classified as growth capability. As outlined in this paper, there are now two other aspects to be considered in addition to knowledge and capabilities: self-concept and experiences. Self-concept is ever evolving and as it matures with experience, knowledge and capabilities, the ideal self also advances and often the gap between real self and ideal self is not bridged because even as one's real self-expands, so does the ideal self.

Both practice and scholarship on how to improve the 15 components of growth capability is ongoing. The model of growth capability presented here with its positioning of components under self-concept, planning one's life, growth, and improving performances, is a model for studying synergy among the components. Understanding the dynamics in this system holds the potential to help Process Educators transform enriched learning environments into enriched growth environments.

Finally, subjective measurement tools (self-reports) for determining the impact of PE practices on increased growth capability and resulting increases in QoL would be beneficial to both practitioners and scholars of personal growth. The authors see great utility in a QoL index that can be personalized and used longitudinally throughout one's life journey.

Conclusions

This paper presents a model for studying the evolution of real self toward ideal self. While the 15 components that make up this model may not fully account for all growth capability, the components have been shown to impact quality of life individually and synergistically. Each component needs individual attention in order to fully unlock its potential for human development. Process Educators have produced a variety of tools for advancing growth capabilities, but they have frequently been more focused on learning to learn than on growth. This article suggests that the power of growable moments in advancing one's QoL can be intensified through cultivation of an elevated level of consciousness with respect to growth. A performance mentor can accelerate this development. Over the course of an individual's lifetime, they can benefit from internalizing the skill of mentoring, ideally becoming a self-mentor

of their own growth. It is important to note that the pursuit of growth capability is likely to be inert if done without the development of self-concept, the first component of growth capability. Instead, planned use of one's capabilities, grounded in one's vision of their ideal self, and connected with challenges of authentic performance experiences is needed to stimulate a growth mindset and associated

practices. Finally, the temporal and spatial dimensions of growth extend far beyond the classroom. Many additive experiences such as international studies, cooperative education, internships, extracurricular activities, service learning, undergraduate research, intercollegiate competitions, etc., are more growth- inducing environments than traditional classrooms. As such, maximizing professional

Table 2 Mapping Growth Capability Components to Developmental Activities in Process Education Resources

Notes: **1 L2L** Curriculum includes: Foundations of Learning (FOL), Student Success Toolbox (SSTB), Life Vision Portfolio (LVP), and Math & Graphing Skills (MGS)

2 PLS Curriculum includes: Learning to Learn: Becoming a Self-Grower (L2LBSG) and the Academic Success Institute

Self-Awareness	L2L Curriculum ¹		rriculum ¹	CH 8: Living in the Information Age, LVP		
	PLS Curriculum ²			CH 11: Metacognition: Thinking about My Thinking Life Vision assignments		
Self-Growth Community		tes	Teaching			Self-Growth
Self-Growth Methodology – Stage	1	Institute	Reflective assignments Pre-activity			Self-Growth Methodology – Stage 1 L2LSG CH 11, CH 15 Need analysis and Value analysis

Vision of Ideal Self	L2L Curriculum ¹		CH 2: Strengthening Identity, LVP			
	PL	PLS Curriculum ²		CH 15: Shifting from Extrinsic to Intrinsic Motivation Life vision assignments		
Self-Growth Community		S	Teaching		Self-Growth	
Visioning Ideal Self		Institutes	Profile of a Quality Faculty Member		CH 15: Shifting from Extrinsic to Intrinsic Motivation Life vision assignments	

QoL Clarity	L2L Curriculum ¹		LVP CH 13: Assess	3: Assessing for Self-Improvement		
Self-Growth Community		urriculum ²]	st Doesn't Define Your Future g from Extrinsic to Intrinsic Motivation Self-Growth		
QoL Framework	Institutes	Quality Lea Environmen		CH3: Your Past Doesn't Define Your Future QoL Framework / Meaning of Life		

Life's Plan

CH 10: Finding and Working with Sources, LVP

PLS Curriculum ²

CH 7: Visioning Your Future,

CH 15: Shifting from Extrinsic to Intrinsic Motivation Life vision assignments

Self-Growth

Self-Growth Community							
Life's Plan							

Teaching
Implementation plan for self-change and growth

CH 15: Shifting from Extrinsic to Intrinsic Motivation

Life vision assignments Multiple times to develop components of life plan over the 5 days - 12 sessions

Life Goals

L2L Curriculum ¹

CH 2: Strengthening Identity, LVP

PLS Curriculum ²

CH 5: Time, Planning & Productivity

Life vision assignments

Self-Growth Community

Life Goals

ntes	Teaching	Self-Growth
=	Institute Goals – Learning and Growth	CH 5: Time, Planning & Productivity Life Goals

Broad Criteria

L2L Curriculum ¹

CH 14: Self-Growth

PLS Curriculum ²

CH 4: Self-Assessment: The Engine of Self-Growth

Self-Growth Community

Broad Criteria

	Teaching	Self-Growth
nstitutes	Assessment vs Evaluation	CH 4: Self-Assessment: The Engine of Self-Growth
lus		Collective Broad Criteria
		Individualized Broad Criteria

Growth Plan

L2L Curriculum ¹

CH 14: Self-Growth

PLS Curriculum ²

CH 1: Performing Like a Star

CH 12: Using Failure as a Stepping Stone for Success

CH 13: Choosing and Using Mentors Effectively

Self-Growth Community

Growth Plan

40	Teaching
nstitutes	Growth Goals for the Institute
lus	Institute Assessment

Implementation Plan

Self-Growth CH 1: Performing Like a Star

CH 12: Using Failure as a Stepping Stone for Success Growth Plan

Growth Skills	L2	L Cu	ırriculum ¹	CH 13: Assessing for Self-Improvement		
	PL	S Cı	urriculum ²	CH 1: Perform CH 14: My Tu		•
Self-Growth Community		တ္	Teaching			Self-Growth
Growth Skills	Institute		Integrated v activities	vithin all the		CH 1: Performing Like a Star CH 14: My turn to Shine Growth Skills

Classification of Learning Skills	L2L Curriculum ¹ CH 4: Learning to Learn		g to Learn		
Learning Okins	PLS C	urriculum ²	CH 2: Becoming a Master Learner		
Self-Growth Community	S	Teaching		Self-Growth	
Classification of Learning Skills	Institute	Learning Pr Methodolog for Learning	y, Reading	CH 2: Becoming a Master Learner CLS Every Activity	

Growth Mindset	L2L Curriculum ¹		CH 14: Self-Growth	
	PLS Curriculum ²		CH 1: Performing Like a Star	
Self-Growth Community	Teaching			Self-Growth
Growth Mindset	Institu	Transforma Education	ition of	CH 1: Performing Like a Star Growth Mindset, Self-Growth Mindset

Methodology for Developing Performance	L2L Curriculum ¹		CH 1: Improving Performance CH 6: Context of Performance		
	PLS (Curriculum ²	_	rming Like a Star rming when Being Evaluated	
Self-Growth Community Teaching			Self-Growth		
Methodology for Developing Performance		Performance Model		CH 13: Choosing and Using Mentors Effectively Performance Development Performance Mentoring	

L2L Curriculum ¹ Methodologies CH 3: Reading Methodology CH 11: Writing in College PLS Curriculum ² CH 6: Methodologies: Unlocking Process Knowledge CH 10: Reading for Learning **Self-Growth Community Teaching Self-Growth** Methodologies Activities on 7 various methodologies: CH 6: Methodologies: Unlocking Learning Process, Reading, Quality Process Knowledge Learning Environment, Course Design, CH 10: Reading for Learning Activity Design, Assessment, Mentoring Methodologies

Assessing	L2	L2L Curriculum ¹		CH 13: Assessing for Self-Improvement		
	PL	S Cı	urriculum ²	CH 4: Self-Ass	S	essment: The Engine of Self-Growth
Self-Growth Community			Teaching			Self-Growth
Consistent usage	nstitutes		Assessment Assessment Evaluation	t Methodology t vs.		CH 4: Self-Assessment: The Engine of Self-Growth Assessment of Assessments
				t (Peer, Self,		

Professional Characteristics	L2L Curriculum ¹		CH 7: Addressing Personal Obstacles CH 12: Communications and Teamwork		
	PLS C	urriculum ²	CH 8: Perform All Chapters	nir	ng in Teams
Self-Growth Community			Π	Self-Growth	
Professional Characteristics plan of development	lnstitute	Characteris	oment of the eristics of a Faculty Member		Professional Characteristics plan of development

QoL Decision-making	L2L Curriculum ¹		rriculum ¹	CH 5: Problem Solving CH 9: Time Management		
	PLS	Cı	ırriculum ²	CH 6: Method	ologies: Unlocking Process Knowledge	
Self-Growth Community ທູ		တ္က Teaching			Self-Growth	
QoL Decision-making		Using reflect assessmen plan future		ction and self- t of past to direction	CH 6: Methodologies: Unlocking Process Knowledge QoL Decision-making	

 Table 3 Building a Foundation of a Growth Approach to Life

Category / Component	Purpose	Method	Discernment Questions (to ask oneself)
Self-Concept			
Self-Awareness	Current state of identity, values, and relationships	Reflect on life experiences to identify which qualities of life that are really valued that make it special	When my inner compass tells me that a decision or action was not true to my values (i.e., a gut check or my stomach churns)
Envisioning Ideal Self	What does the individual want their identity (values, needs, and desired life quality) to look like?	The individual should visualize what they would like to do that they are currently not doing	If I was stronger and more capable (mentally and/or physically) what would I like to accomplish that is currently not a life goal?
Clarifying Life Quality	From the ideal self, create a chart weighing the value of each part to total 100%	Search through memories and determine what was significant to determine what	If it was good why? How does this relate to my QoL? If it was not so good, why? How
		made it memorable	does this relate to my QoL?
Planning One's Life			
Life Goals/ milestones	The individual describes their quality characteristics	Decide what is important to accomplish in life	How would I determine if I are making progress toward my goal?
			What are goals I have been afraid to list?
Planning One's Life	(continued)		
Life's Plan	Strategies to self-direct one's journey towards one's ideal self	Identify learning, changes in characteristics and behaviors that can help one address life's challenges, risk factors and opportunities leading to a better version of oneself.	Where am I stuck? To what characteristics do I aspire? What impedes me from becoming my ideal self?
Broad Criteria	Performance criteria for living life	Determine the most important qualities of one's own life	Which criteria are most different from each other?
			What are my top 5–8 qualities of life?
Growth			
Growth mindset	The individual believes in themselves and that they can grow and succeed	Confirm that you have grown in the last five years in five key areas	How did I grow in these five areas?
Growth Skills (assessment mindset)	40 learning skills that produce real-time development of quality	Identify three growth skills used effectively and explain how they affect QoL	Which three growth skills are new and that that can improve my QoL?
Growth (continued)			

Category / Component	Purpose	Method	Discernment Questions (to ask oneself)
Classification of Learning Skills	Resource of 509 learning skills	Choose from learning skills from the cognitive, social, affective, and assessment/ evaluation of quality domains that match the individual's goals	Which learning skills hold me back and which have I avoided using?
Growth Plan	Plan that aligns strategies, resources, and conditions to increase QoL	Identify areas of life quality that the individual would like to increase	What value would a performance mentor or self-growth coach contribute to my desired growth?
Improving Performa	ance		
Performance development methodology	Step by step cycle for improving performance	Decide which performance areas are most important for your to significantly increase	When is practice and rehearsal most enjoyable? How do I currently use
			assessment and evaluation feedback?
Methodologies	Models of key life processes	Select relevant methodologies to guide self-growth	Have I explored the Learning Process Model?
			How effectively have I used it?
Professional Characteristics	50 characteristics that contribute to professional behavior	Determine which professional attributes are most critical	What are my top characteristics that make me a strong professional?
			What are the top characteristics that get in the way of my professional growth?
Assessing	Sequence of invited observations of performance for the	The individual decides how and when to assess their performance	How judgmental am I and how does that influence my improvement?
	purpose of obtaining constructive feedback		How could I benefit from using SII on a regular basis?
Quality Decision- making	Micro level decisions in every moment and macro level changes over time	Develop consciousness about how to spend time and the impact of what one chooses to do	How do my choices and actions affect my QoL?

growth is an educational outcome that needs to be pursued at the program level, weaving together experiences across multiple courses and co-curricular venues.

References

- Academy of Process Educators. (2019). *Welcome to the Classification of Learning Skills*. The Classification of Learning Skills. http://www.processeducation.org/cls/web/
- Academy of Process Educators. (2021). *Self-Growth Community*. http://www.processeducation.org/moo/moodle/course/view.php?id=5
- Apple, D. K., & Ellis, W. (2015). Learning how to learn: Improving the performance of learning. *International Journal of Process Education*, 7(1), 21–28. http://ijpe.online/2015/learning.pdf
- Apple, D., Ellis, W., & Hintze, D. (2015). Learning to learn camps: Their history and development. *International Journal of Process Education*, 7(1), 63-74. https://www.ijpe.online/2015/camps.pdf
- Apple, D., Ellis, W., & Hintze, D. (2016). 25 years of Process Education. *International Journal of Process Education*, 8(1), 3-147. http://www.ijpe.online/2016/color033116sm.pdf
- Apple, D. K., Ellis, W., & Leasure, D. (2018). A professional's guide to self-growth. Hampton, NH: Pacific Crest.
- Apple, D. K., & Leasure, D. (2018). *How raising the bar helps re-entry students succeed. Four Part Series March 2018*. Evolllution. https://evolllution.com/attracting-students/retention/how-raising-the-bar-helps-re-entry-students-succeed-part-1/
- Apple, D. K., Leasure, D. E., Nelson, T., Ulbrich, I. M., & Woodbridge, C. M. (2020). How the learning to learn experiences model the seven universal and perennial principles of student learning and persistence. *International Journal of Process Education*, 11(1), 31-40. http://www.ijpe.online/2020/descriptions.pdf
- Apple, D., Leise, C., Ellis, W., Beyerlein, S., Leasure, D., Batchelor, G., Burke, K., Woodbridge, C., El-Sayed, M., Ulbrich, I., Duncan, W., Utschig, T., & Donald, A. (2021). Self-Growth capability components and their impact on growth. *International Journal of Process Education*, 12(1).
- Apple, D. K., Morgan, J., & Hintze, D. (2013). Learning to learn: Becoming a self-grower. Hampton, NH: Pacific Crest.
- Baehr, M., & Beyerlein, S. (2007). Overview of assessment. In S. W. Beyerlein, C. Holmes, & D. K. Apple (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance* (4th ed.). Lisle, IL: Pacific Crest.
- Barrick, M., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44(1), 1-26. doi: 10.1111/j.1744-6570.1991.tb00688.x
- Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78(1), 246–263. doi:10.1111/j.1467-8624.2007.00995.x
- Bobrowski, P. (2007). Bloom's taxonomy: Expanding its meaning. In S. W. Beyerlein, C. Holmes, & D. K. Apple (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance* (4th ed.). Lisle, IL: Pacific Crest
- Boyatzis, R. E., & Akrivou, K. (2006). The ideal self as the driver of intentional change. *Journal of Management Development*, 25(7), 624–642. https://doi.org/10.1108/02621710610678454
- Burgoyne, A. P., Hambrick, D. Z., & Macnamara, B. N. (2020). How firm are the foundations of mind-set theory? The claims appear stronger than the evidence. *Psychological Science*, *31*(3), 258-267. doi: 10.1177/0956797619897588
- Covey, S. (1989). The seven habits of highly effective people. Simon and Schuster.
- Desjarlais, M., & Smith, P. (2011). A comparative analysis of reflection and self-assessment. *International Journal of Process Education*, *3*(1), 3-18. http://www.ijpe.online/2011/reflectionh.pdf
- Dewey, J. (1938). Logic: The theory of inquiry. NY: Holt, Rinehart & Winston.
- Dweck, C. (2017). From needs to goals and representations: Foundations for a unified theory of motivation.

- Psychological Review, 124(6), 689-719. doi: 10.1037/rev0000082
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256–273. http://dx.doi.org/10.1037/0033-295X.95.2.256
- Erikson, E. (1968). *Identity: Youth and crisis*. New York: W.W. Norton.
- Eurich, T. (2018). What self-awareness really is (and how to cultivate it). *Harvard Business Review*. https://hbr.org/2018/01/what-self-awareness-really-is-and-how-to-cultivate-it
- Friedman, M. I. (1997). Improving the quality of life: a holistic scientific strategy. Westport, CT: Praeger Publishers.
- Hong, Y. Y., Chiu, C., Dweck, C. S., Lin, D., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social Psychology*, 77(3), 588–599. doi:10.1037/0022-3514.77.3.588
- Horton, J. (2015). Identifying at-risk factors that affect college student success. *International Journal of Process Education*, 7(1), 83-102. https://www.ijpe.online/2015/risk.pdf
- Hurd, B. (2007). Self-growth plans for faculty members. In S. W. Beyerlein, C. Holmes, & D. K. Apple (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance* (4th ed.). Lisle, IL: Pacific Crest.
- Jain, C. R., Apple, D. K., Ellis, W., Leise, C., & Leasure, D. (2020). Bringing self-growth theory to practice using the self-growth methodology. *International Journal of Process Education*, 11(1), 73-100. http://www.ijpe.online/2020/sgmethodology.pdf
- Kegan, R., & Lahey, L. L. (2001). How the way we talk can change the way we work: Seven languages for transformation. John Wiley & Sons.
- Kegan, R., & Lahey, L. L. (2009). *Immunity to change: How to overcome it and unlock potential in yourself and your organization*. Harvard Business Press.
- Komarraju, M., Karau, S. J., Schmeck, R. R., & Avdic, A. (2011). The big five personality traits, learning styles, and academic achievement. *Personality and Individual Differences*, *51*(4), (477). https://doi.org/10.1016/j. paid.2011.04.019
- Leasure, D., Apple, D., Beyerlein, S., Ellis, W., & Utschig, T. (2020). A system for learning by performance (LxP). *International Journal of Process Education*, 11(1), 101-128. http://www.ijpe.online/2020/lxp.pdf
- Leise, C. (2007). Differentiating knowledge from growth. In S. W. Beyerlein, C. Holmes, & D. K. Apple (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance* (4th ed.). Lisle, IL: Pacific Crest.
- Leise, C., & Beyerlein, S. (2007). Learning processes through the use of methodologies. In S. W. Beyerlein, C. Holmes, & D. K. Apple (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance* (4th Ed.). Lisle, IL: Pacific Crest.
- Leise, C. (2020, June). Psychology of growth and self-growth. [Paper presentation]. Process Education Conference 2020, online.
- Leise, C., Litynski, D., Woodbridge, C., Ulbrich, I., Jain, C., Leasure, D., Horton, J., Hintze, D., El-Sayed, M., Ellis, W., Beyerlein, S., & Apple, D. (2019). Classifying learning skills for educational enrichment. *International Journal of Process Education*, 10(1), 57-104. http://www.ijpe.online/2019/cls_full1.pdf
- Loevinger, J., & Wessler, R. (1970). *Measuring ego development. Volume I. Construction and use of a sentence completion test.* San Francisco: Jossey-Bass.
- Matsumoto, D. (Ed.). (2009) Cambridge Dictionary of Psychology. Cambridge University Press.
- Nelson, T., Apple, D., Ellis, W., Leasure, D., & King-Berry, A. (2020). Performance descriptions: A major tool for performance development. *International Journal of Process Education*, 10(1), 129-151. http://www.ijpe.online/2020/descriptions.pdf

- Oettingen, G. (2015). Rethinking positive thinking: Inside the new science of motivation. London: Current.
- Pacific Crest (2020). Self-Growth Institute.
- Pacific Crest (2016). Teaching Institute. Retrived from http://www.pcrest.com/PC/institutes/teaching.pdf
- Redfield, K., & Hurley Lawrence, B. (2009). Foundations of learning (4th ed.). Lisle, IL: Pacific Crest.
- Rogers, C. R. (1951). *Client-centered therapy: Its current practice, implications, and theory.* Oxford, UK: Houghton Mifflin.
- Seligman, M. (2011) Flourish: A visionary new understanding of happiness and well-being. Free Press.
- Shogren, K. A., Wehmeyer, M. L., & Martinis, J. (2018). Supported decision-making: Theory, research, and practice to enhance self-determination and quality of life. Cambridge, England: Cambridge Press
- Smith, P., & Apple, D. (2007). Methodology for developing methodologies. In S. W. Beyerlein, C. Holmes, & D. K. Apple (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance* (4th Ed.). Lisle, IL: Pacific Crest.
- Sutherland, H. J., & Till, J. (1993). Quality of life assessments and levels of decision making: Differentiating objectives. *Quality of life research*, 2(4), 297-303. www.jstor.org/stable/4034727
- Taylor, J. (2017) *Making your sports goal setting smarter*. Psychology Today. https://www.psychologytoday.com/us/blog/the-power-prime/201710/make-your-sports-goal-setting-smarter
- Utschig, T., Leasure, D., & Apple, D. (2019, October 9–12). Learning by performing (LxP) A practical framework for authentic learning [Presentation]. International Society for the Scholarship of Teaching and Learning 2019 Conference SoTL Without Borders: Engaged Practices for Social Change, Atlanta, GA.
- Utschig, T., & Apple, D. (2009). Keys to improving academic assessment. *International Journal of Process Education*, *1*(1), 43-52. http://www.ijpe.online/2009/keys_assessmenth.pdf
- Utschig, T. (2020). How to Make Learning Objectives Useful: Write Performance Criteria! 2020 Process Education Professional Development Workshop. http://www.processeducation.org/2020_w5a.html
- Van Slyke, A., & Utschig, T. (2020, June). Development tips for performance mentoring [Workshop]. Process Education Conference 2020, online.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wasserman, J., & Beyerlein, S. (2007). SII method for assessment reporting. In S. W. Beyerlein, C. Holmes, & D. K. Apple (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance* (4th ed.). Lisle, IL: Pacific Crest
- Watts, M. (2018). The learning process methodology: A universal model of the learning process and activity design. *International Journal of Process Education*, *9*(1), 41-51. http://www.ijpe.online/2018/lpm.pdf
- Wenner, W., Soman, S., Stevenson, R., & Apple, D. (2019). Building institutional support for a recovery course for academically dismissed students. *International Journal of Process Education*, 10(1), 3-14. http://www.ijpe.online/2019/recovery.pdf
- Yeager, D. S., & Dweck C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, 47(4), 302-314. doi: 10.1080/00461520.2012.722805.

Appendix A Growth Skills for Performance Development and Improving Quality of Life, Ordered According to the Stages of the Methodology for Developing Performance

Growth skill	Description	Impact on Improvement of Quality of Life
	Stage 0: Exploring a Po	erformance Opportunity
Being true to self	Walking the walk of one's values; following one's inner compass	Consistently following one's values, beliefs, and passion for all aspects of life as one imagines it can dramatically enrich the path(s) one develops.
Updating life vision	Mapping new paths to realize one's identities in achieving goals and dreams	Improving life quality requires greater clarity about the person one is and wants to be; practical plans are needed to increase the probability that the life goals, strategies, and milestones relevant for enriching personal meaning of one's life become reality.
	Stage 1: Sizing up Per	formance Expectations
Strengthening role identities	Prioritizing the most important parts one plays	Growth in identity development will be greater as one makes better decisions about how to increase the coherence and value of key roles that are related to life quality.
Defining performance characteristics	Recognizing key features of actions or nuances in the process(es)	As the individual improves in the identification of factors that have impact on life quality, they can focus more clearly on the qualities that are important for your life.
Motivating self	Setting up conditions that lead to desired actions	The recognition that motivation often arises outside oneself stimulates the need to set plans, take first steps, collaborate, and perform other actions to make quality outcomes more likely.
Committing to self	Believing the value of one's life is as important as anyone's and is best determined by the individual	Sustaining one's pursuit of growth goals requires that one value personal agency as the key factor.
Analyzing performance	Objectively assessing current capacity in a performance area	Learning, performance, and growth will be enhanced by thorough inquiry of how well these presently meet expectations.
Valuing performance	Acknowledging excellence in performances	Constantly seeking higher levels of performance is valuable because it expands one's work ethic and increases quality of life.
Introspecting	Using systematic analytical and assessment tools to produce greater meaning about self	Asking oneself hard questions to explore personal meaning unlocks barriers and constraints on who one wants to become.
Being self-aware	Appreciating opportunities for engaging in reflection	Capturing accurate information about why one acts in the way that they do in any activity, social role, or challenging situation is essential to building of self-efficacy.
Applying criteria	Aligning observations (evidence), analyses and feedback to focus areas	Consistently using broad criteria keeps one's perspective on enhancing overall quality of life
Maintaining standards	Refraining from subjectively changing evaluation criteria/standards after a performance	Because quality is related to high standards, lowering them will reduce quality. Holding high standards for oneself and others will maintain and improve quality of life for all.

Growth skill	Description	Impact on Improvement of Quality of Life
	Stage 2: Planni	ng Performance
Self-challenging	Getting out of your comfort zone to increase growth opportunities	Greater life quality depends upon taking on difficult tasks that have great promise for adding to the dimensions of one's performances even if seemingly beyond current capability.
Making meaning	Valuing experiences or insights that push one beyond current concerns	Making new connections among ideas, experiences, or events results in more integrated insights about life and world beyond one's current way of being.
Valuing growth	Appreciating opportunities for increasing one's capacity	Increasing personal capabilities is directly related to improved quality of life.
Setting growth goals	Identifying direction and using planning to increase capacity	The better one targets and selects where, when, and how to invest in growth, the more one will improve the quality of life.
Believing in your potential	Generalizing from achievements to validate a growth trend	Life quality can be enhanced by choosing opportunities that are personally valuable for actualizing success.
Being proactive	Using opportunities to take steps to enhance future outcomes	Doing things quickly and early improves productivity, self-worth, and progress towards life goals.
	Stage 3: Preparin	g for Performance
Being passionate	Flourishing by doing those things that create the greatest meaning in one's life	Giving all of oneself to the pursuit of selected goals that mesh with one's central values will produce great life meaning
Prioritizing	Consistently putting the most important things first	Placing emphasis on roles, areas of performance, and values that are of highest personal importance will improve decisions related to achieving greater QoL.
Feeling empowered	Having all the factors needed to make a significant endeavor possible	Confidence built from past successes leads to selecting new undertakings with a high chance of positive impact on life quality.
Maintaining balance:	Practicing moderation	It is essential to keep the big picture in mind and to apply self-control strategies to not lose sight of the moments of one's life that are most valuable among the abundance of situations, experiences and relationships.
Focusing on self- improvement	Taking on the mindset of continuously improving one's own performance	Creation of better versions of oneself requires attention to growth opportunities as these occur each day, month, and year.
Seeing prompts	Knowing when reflection is needed and will produce significant value	Life quality can be increased by being ready to use growable moments as opportunities that will increase the quality one is seeking.
	Stage 4: Executin	g the Performance
Trusting self	Knowing that one's values and capabilities are the most relevant to one's situation	Developing a stronger sense of ownership of one's life, its direction and conviction in self are the keys to choosing one's unique individualized QoL
Committing to success	Devoting oneself to accomplishing one's goals or triumphing in a challenge	One can add to the quality of life by doing what it takes, within ethical boundaries, to achieve important results.

Growth skill	Description	Impact on Improvement of Quality of Life
	Stage 5: Judgir	ng Performance
Exposing vulnerability	Being willing to speak publicly about sensitive disclosures	Growth can be stimulated by revealing difficult life experiences in areas one wishes to change.
Toughening self-esteem	Strengthening self-worth by overcoming difficulties and struggles	The stronger one becomes from dealing with the negatives of life and making them more positive, the more value one gets from each moment; increased valuing of who one is, what one wants, and where one is headed
Changing reactions	Purposefully trying out new or alternative reactions to specific feelings	Emotions can be interpreted in multiple ways; a positive choice will produce greater good and lead to greater quality.
Accepting consequences	Agreeing to bear or own the full outcome of an action or decision	Having a mindset of "the buck stops here" encourages trust and respect from others and a willingness for others to follow the individual's lead in ventures that involve risk.
	Stage 6: Coaching and	Assessing Performance
Seeking feedback	Asking for assessment/ evaluation to adjust and strengthen self-assessment	Increasing the frequency, diversity and effectiveness of feedback increases growth and its impact on areas of life quality.
Accepting feedback	Being receptive to the perspectives and analysis of others on one's performance	Quality is enhanced by integrating multiple sources of information about how to improve quality.
Having assessment mindset	Focusing on improvement without judging quality	Focusing on discovery of what to do better avoids attention to negative perceptions and attitudes that impede forward movement.
Identifying SII Opportunities	Picking the most valuable areas for analyzing and including in feedback	Learning to recognize what is most important and relevant to assess in any situation is the most efficient path to increased quality in all aspects of life.
	Stage 7: Interpreting P	Performance Feedback)
Interpreting feedback	Figuring out why and what the assessor/evaluator is trying to say	One can maximize the value realized from feedback by better understanding the nature of the feedback, the motivations behind it, and how people are trying to help improve quality.
Listening to self	Tracking the focus of one's inner voice	A prime directive is to attending to one's feelings, motives, and thoughts about life and how one is living it.
Persisting	Continuing on a reasonable path despite low mood or mounting difficulties	Learning that barriers like moods and low energy can be tackled and changed which makes it possible to continue to pursue important goals and produce their quality outcomes.
Changing behaviors	Deliberately responding in a new way to old feelings and situations	When a barrier arises, new doors can be opened by choosing a new behavior or strategy that contrasts with how one has customarily reacted.
Practicing reflection	Increasing apprehension of new truths about identities, values, feelings and actions	The better one can step back and create meaning from self, situations, ideas, and their interactions, the more one can control actions that enhance quality of life.
Using summative assessment	Analyzing the quality of a process or project for future benefit	Termination points are a fertile time for assessment of the full impact of endeavors or experiences for future performance development and growth.