

# Growth Potential of Learning Skills in the Cognitive, Social, Affective, and Assessment & Evaluation Domains

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## Abstract

*This work was undertaken to identify a subset of learning skills which are especially powerful in promoting personal growth. A rubric with 16 specific growth-related criteria was drawn from the Performance Development Methodology, three areas of self-concept, and five mindsets that contribute to growth. These criteria align with an updated definition of a growth skill which is consistent with recent Process Education scholarship: A growth skill improves transferable personal performance capability, enhances self, and promotes a growth mindset. From detailed analysis of each learning skill in the Classification of Learning Skills (CLS) using the rubric, skills were rated and then categorized as Growth Skills, Growth Contributors, Performance Enhancers, or Only a Learning Skill. This approach further resulted in 77 high-impact growth skills located across all four CLS domains. Results also highlight process areas and skill clusters for greatest leverage in promoting growth capability.*

## Introduction

Educators and employers have a shared interest in fostering acquisition of technical skills, often called “hard skills,” as well as broadly applicable professional skills or “soft skills” (Coursera, 2023; McMasters, 2007). The goal of skill development is performance improvement in a broad spectrum of areas. Technical skills include subject matter knowledge, fluency with information and data processing, math and statistics competencies, and proficiency with software tools. Technical skills are traditionally learned in educational or hands-on training environments and are often measured against well-defined performance standards as part of individual and/or program certification. Alternatively, professional skills are personal qualities that impact how individuals interact and collaboratively solve problems with others. Professional skills are a focus of many first-year experience, general education, and capstone courses. Professional skills include communication (oral and written), teamwork, critical thinking, curiosity, creativity, and inclusiveness.

Over the last three decades, multiple accrediting organizations (Council for Higher Education Accreditation, n.d.) have paid greater attention to monitoring and improving student learning outcomes as expressed through relevant technical and professional skills (Spady, 1994). In addition, hiring managers are becoming more prescriptive in screening prospective employees for a combination of technical and professional skills associated with specific job descriptions/roles (Birt, 2023). A common denominator for both educators and employers is a quest for discrete skills that enable high quality performance. This set should be a manageable list of transferable skills, meaningfully organized

but also with enough specificity so that it can be used to structure productive interventions during professional development, whether teacher-directed, manager-directed, or self-directed. This realization and the belief that there is a core set of learning skills which are instrumental in advancing other skills needed for higher performance capability is the premise of this work.

Perceived performance gaps between academic preparation and modern workplace requirements have given rise to organizations such as the National Association of Colleges and Employers (NACE). NACE has identified gaps in technical and professional skills through surveys and focus groups with employers representing a broad set of industries (NACE, 2022). Their research resulted in the identification of eight career readiness competencies which include career and self-development, communication, critical thinking, equity and inclusion, leadership, professionalism, teamwork, and technology (NACE, 2021). While NACE offers definitions and sample behaviors for each of the eight competencies, these broad skill categories are too complex to internalize and need further detailing to be operationalized in professional development.

Indeed™, the world’s largest job posting and resume matching service, conducted a survey of hiring managers to identify attributes of professionals who were considered to be the highest performers at their company (Birt, 2023). In selecting these professional skills, respondents were asked to think about their importance in getting a new job, advancing positions, building workplace relationships, and improving job performance. Fifteen skill groupings emerged from this survey: leadership, teamwork, emotional intelligence, organization, flexibility, communication,

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self-motivation, problem solving, openness to learning, integrity, self-confidence, public speaking, open mindedness, and professionalism. Each of these areas was defined to justify its inclusion, further subdivided into supporting skill clusters, with tips provided for strengthening these skills. For example, supporting teamwork clusters included cooperation, reliability, willingness to help others, friendliness, ability to convince others, respectfulness, tolerance, working toward a common goal, and collaboration. Each cluster was in turn broken down into five to seven subsidiary skills that were in turn defined and exemplified. In looking through this system there are several hundred skills, many of which are cross-linked to other groupings and clusters, raising questions about circular definitions and primacy of different skills. While the Indeed™ resource is thought-provoking, we find it unwieldy as a professional development tool.

The Classification of Learning Skills (CLS) was created as a tool for organizing a set of broadly transferable skills that enhance learning, teaching, and assessment (Apple et al., 2007); they are aptitudes, abilities, and behaviors related to increasing learning performance. They were originally inventoried for inclusion in cognitive, social, and affective domains. The cognitive domain contains skills focused on processes related to thinking—information processing, critical thinking, working expertise, problem solving, and research. The social domain contains skills concerned with communicating, relating with others, living in society, managing, and leading. The affective domain contains skills related to processing emotions and acting as a result of that processing. Learning skills have been highlighted as a foundational element of performance-based learning by the Academy of Process Educators, along with assessment and attention to learner self-development (Burke et al., 2009). From the initial inventorying of learning skills as tools for promoting transferrable learning, there has been interest in identifying a subset of these skills that are more powerful than the rest with respect to learner development and in personal growth (Apple et al., 2016).

An update of the CLS was published by Leise et al. (2019), which included a significant expansion of skills in the affective domain and a new assessment/evaluation of quality domain, as well as some adjustments to skills in the cognitive and social domains. The 2019 update to the CLS was accompanied by an electronically searchable version of the CLS that greatly expanded its use among Process Educators. The update also supported growing attention to personal and professional growth, above and beyond a traditional emphasis on learning to learn (Apple et al., 2019; Leasure et al., 2020).

A focus on the skills that promoted individual growth capability, termed *growth skills*, was proposed based on

combining individual perceptions shared by an early Self-Growth Community formed after the first Pacific Crest Self-Growth Institute in 2019. The operational definition for a growth skill used by this community was that a growth skill “improves personal capability through metacognitive awareness and motivation to produce new actions that improve performance development in a variety of contexts” (Self-Growth Community, n.d.). Items considered in the selection process included:

- Is the skill likely to be cited in personal growth plans?
- Is the skill impactful in stimulating development of other learning skills?
- Does the skill beneficially impact quality of life?
- Does the skill play a role in enhancing a growth mindset?
- Is the skill often used to support and improve assessment?
- Is the skill used in making decisions against established criteria?

Skills were not necessarily selected because they met all considerations, but because of the strength of their contribution in a number of these areas. The set of proposed growth skills was included in an article on elements of growth capability by Hurd et al. (2021). Subsequently, Van Slyke et al. (2021) mapped the growth skills to specific steps in the Methodology for Developing Performance.

This work expands on this previous research by determining the general growth potential of each learning skill in the CLS quantitatively and based on explicit criteria. The intention was to frame these criteria around an updated definition of *growth skill* that leverages contributions from all categories of growth capability outlined by Hurd et al. (2021). Specifically, these criteria should target all stages in the Methodology For Performance Development (Van Slyke et al., 2021), expansion of self-concept (perception of current self, vision of ideal self, and clarification of life qualities), and a variety of mindsets for growth. The underlying assumption of this work is that there is value in prioritizing growth skills based on their frequency and breadth of use, rather than specialized use.

In what follows, we first describe the methodology used to analyze each of the skills, the rubric used to record the analysis, and the classification system created to categorize the results of the analysis. Next, we describe the results for the analysis of the 512 skills within the CLS. A discussion of the resulting high-impact growth skills in each domain is presented as well as an examination of the highest impact growth skills across all domains. Finally, we present conclusions and discuss recommendations for further research.

## Methodology

To systematically determine whether the skills in the CLS contributed to growth capability, a rubric needed to be developed. The development process began by analyzing the categories and components of growth capability delineated in Hurd et al. (2021) and depicted in Figure 1.

Growth Capability is broken down into four categories, Self-Concept, Planning One's Life, Growth, and Improving Performance. The goal is to determine which skills in the CLS promote growth. Because growth should improve performance, the skills utilized in the Methodology for Developing Performance should promote growth. Additionally, growth skills should promote a growth mindset. Finally, a growth skill should promote self-concept through self-awareness, envisioning one's ideal self, and helping to clarify life qualities. These areas that contribute to growth capability are in bold, below. Those areas not highlighted are tools or techniques used to help growth capability.

Using these areas that promote growth, an updated definition of a growth skill was developed:

*A growth skill improves transferable personal performance capability, enhances self-concept, and advances a growth mindset.* This definition is the basis of the rubric created to measure whether the skills in the CLS promote growth.

### Growth Skill Rubric

The rubric utilized to determine if a skill in the CLS promoted growth has three areas corresponding to the new growth skill definition. The first area determines whether the skill is essential to the Methodology for Developing Performance. The criteria analyzed in this area are each stage of the methodology as delineated

in Figure 2. Each skill was analyzed to determine if the skill helps in that stage of the methodology using the discernment questions listed.

The second area of the rubric explores whether the skill helps in the components of self-concept. That is, does the skill help the individual understand their current self, envision their ideal self, and help them clarify decisions about life qualities.

The third area is growth mindset. To be a growth skill, the skill should promote mindsets related to growth (Leise et al., 2023). A growth skill would therefore be future oriented, promoting forward thinking, and promote positive energy, a can-do attitude to enhance a positive mindset, and performance readiness. It also promotes continuous improvement—an assessment mindset—as well as strategic thinking—a strategic mindset.

### Skill Review Process

Each of the 512 learning skills in the CLS was reviewed twice utilizing the Growth Skill Rubric. The first pass through the CLS was carried out by a two-person team who spent approximately 7 to 10 minutes working through the discernment questions for each skill. For each skill, the team first ensured consensus on the meaning of the skill's definition and used a consistent role and audience for each criterion across all skills. To arrive at an answer to the discernment question for the criteria in the rubric, the team considered internal and external impact on growth, envisioned performance at the highest level of the skill, and identified examples of positive/negative use of the skill. At the end of a cluster, the team examined outliers and conducted a cluster perception check to ensure consistency.

**Figure 1** Categories and Components of Growth Capability

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

The second pass through the CLS was completed by a three-person team who spent approximately three to five minutes per skill. Again, the team began by ensuring consensus on the meaning of the skill's definition. The team recorded necessary changes and updates to the CLS including deletions as well as clarifications of definitions and skill names. Of the 512 skills in the CLS, 499 remained after the review (see the Appendix for deletions and clarifications of names/definitions). Next, the team validated yes/no criteria rating for each skill. To successfully challenge a rating, the team needed to provide additional examples. Outlier cases were also examined. Finally, the team checked for accuracy in the Classification Rating for each skill.

To be considered a Growth Skill, the skill must have at least one 'Yes' indicated in all three areas of the Growth Skills Rubric. Additionally, there must be a response of 'Yes' to 8 or more of the 16 discernment questions, that is at least 50 percent of the rubric criteria must be met. If all three areas of the Growth Skills Rubric have at least one 'Yes,' but less than 50 percent of the criteria are met, then the skill was labeled a *Growth Contributor*. If 50 percent or more of the criteria are met, but all three areas of the Growth Skills Rubric do not have at least one yes, then the skill was considered a *Performance Enhancer*. If none of these cases apply, then the skill is simply a *Learning Skill*. This Classification Rating is depicted in Figure 3.

## Results

After reviewing the 499 skills remaining, 43 percent or 207 learning skills are considered growth skills by meeting at least half of the 16 criteria in the Growth Skills Rubric. The full list of the 207 growth skills is delineated by their respective domain in the Appendix. The goal of this research was to identify the learning skills that have a significant impact on an individual's growth capability. Thus, to narrow the 207 growth skills to those with a broader impact, an additional classification was created. A growth skill with a 'Yes' to 12 or more of the 16 criteria (75 percent) were labeled High-Impact Growth Skills.

The breakdown of this Classification Rating by the process areas within each of the four domains is presented in Table 1. As discussed, the identified growth skills are separated into high-impact growth skills and Other Growth Skills. The percentage of Growth Contributors, Performance Enhancers, and Other Learning Skills are also indicated within Table 1.

### High-Impact Growth Skills by Domain

Of the 207 identified Growth Skills, 77 were High-Impact Growth Skills. As delineated in Table 2, of the 129

skills within the Cognitive Domain, 20 skills or 15 percent are High-Impact Growth Skills. Twenty of the 140 skills (14 percent) in the Social Domain are High-Impact Growth Skills. Within the Affective Domain, 24 of 178 skills (13 percent) are High-Impact Growth Skills. Finally, 13 of the 52 skills (25 percent) in the Assessment & Evaluation Domain are High-Impact Growth Skills.

Exploring the high-impact growth skills further, Tables 4 through 7 delineate these skills within each domain. To aid in finding these skills within the online CLS these tables are similarly constructed ([www.processeducation.org/cls/web/](http://www.processeducation.org/cls/web/)). Within each domain, the skills are first classified by their overarching Process and then listed by the Cluster in which they are found in the CLS.

### High-Impact Growth Skills Across Domains

Synthesizing these tables to more easily identify the skills that meet the most criteria, the high-impact growth skills are sorted by the percent of criteria met and displayed in Table 4. Seven of the skills, Interpreting, Thinking Agilely, Ensuring Fitness, Being True to Self, Committing to Success, Applying Criteria, and Being Non-Judgmental met all 16 criteria in the Growth Skills Rubric. These skills come from three of the four domains, Cognitive, Affective, and Assessment and Evaluation.

## Conclusions

The CLS was conceived as a tool for locating broadly applicable skills for life-long learning, not restricted to unique disciplinary contexts. Taking time to review each learning skill against the 16 new criteria for a growth skill deepened appreciation for the entire classification and, not surprisingly, revealed that a significant fraction of these skills are also valuable for promoting personal growth. Of the 500 learning skills in the CLS, approximately 40 percent met the specifications set out for a Growth Skills and 24 of the learning skills were categorized as performance enhancers (see the Appendix for full list).

A complete list of Growth Skills, including the high-impact growth skills featured in the figures throughout the article, appears in the Appendix. Not surprisingly, growth skills draw from all four domains and process areas within the CLS. This is readily observed by the representation of vetted growth skills (i.e., high-impact growth skills plus other growth skills that meet 50% or more of the selection criteria) within their respective CLS domain, process area, and cluster. Cognitive domain processes that have an especially high concentration of growth skills are critical thinking (75%) and generalizing (56%). Within the social

domain, the process of leadership has an especially high concentration of growth skills (61%). Affective domain processes with a high concentration of growth skills are personal growth (71%) and facilitating growth in others (64%). Several processes in the assessment domain have an even higher concentration of growth skills. These are defining quality (76%), assessing quality (86%), self-as-

sessing (80%) and reflecting (83%). These process areas are also featured in many general education courses. As such, the growth skills enumerated in the Appendix should receive thoughtful consideration for inclusion and emphasis in these courses if personal growth is among primary student learning outcomes. Comparing and contrasting each growth skill with other skills in the same cluster within the

**Figure 2** Growth Skill Rubric

		Skill Rating
<b>Essential to Methodology for Developing Performance</b>		
STAGE 0 Performer explores opportunity	Does the skill help in exploring opportunities?	
STAGE 1 Performer sizes up expectations	Does the skill help in sizing up expectations?	
STAGE 2 Performer plans	Does the skill help while planning for performance?	
STAGE 3 Performer prepares	Does the skill help while preparing for performance?	
STAGE 4 Performer performs	Does the skill help during performance?	
STAGE 5 Judge evaluates	Does the skill help in rating and reporting performance?	
STAGE 6 Coach and/or performer assesses	Does the skill help in assessing performance?	
STAGE 7 Performer interprets feedback	Does the skill help in interpreting performance feedback?	
<b>Self-Concept</b>		
Knowing your identity/current self	Does the skill help you understand your current self?	
Envisioning ideal self	Does the skill help the individual envision their ideal self?	
Clarifying life quality	Does the skill help the individual clarify life qualities?	
<b>Growth Mindset</b>		
Future-oriented	Does the skill promote forward thinking?	
Positive	Does the skill promote both positive energy and can-do attitude?	
Performance	Does the skill promote performance readiness?	
Assessment	Does the skill promote continuous improvement?	
Strategic	Does the skill promote strategic thinking?	

**Figure 3** Classification Rating Scheme

	<b>≥ 50% of Criteria Met</b> (8 or more)	<b>&lt; 50% of Criteria Met</b> (7 or fewer)
<b>YES</b> [ across all 3 rubric areas ]	<b>Growth Skill</b>	<b>Growth Contributor</b>
<b>NO</b>	<b>Performance Enhancer</b>	<b>Learning Skill</b>

CLS provides nuanced understanding about the similarities and differences between related skills. These insights can inform the selection of targeted skills used in activity design, facilitation, and performance mentoring.

It is noteworthy that the new Growth Skill list is much more extensive than the set of growth and mentoring related skills proposed by Process Educators within a 2020 self-growth community. Many of the earlier skills are part of the new listing. Twenty-three of the original 40 growth skills and 22 of the original 36 mentoring skills met the new specifications for a Growth Skill. However, in analyzing preliminary lists created by the self-growth community, it should be noted that the work reported here focused only on the potential for each learning skill to expand personal growth. This required that at least one selection criteria be met within the three categories of performance development, formation of self-concept, and mindset for growth. Thus, the growth skills that emerged from this work were selected because of their breadth of application across the criteria within the growth skills Rubric presented in Figure 2. Some of the preliminary growth skills may have been chosen because of the significance of their impact on a small subset of the selection criteria. Furthermore, this work did not investigate learning skills from the perspective of mentoring. In principle, some of the growth skills that emerged from this work could certainly be powerful in mentoring, but different selection criteria would be necessary to make that determination definitively.

The 77 high-impact growth skills are a powerful and manageable set of skills that can be used as a starting point for infusing performance mentoring and self-growth inside and outside the classroom. While the High-Impact Growth Skills span all domains in the CLS, there are five skill clusters that have three or more High-Impact Growth Skills. These High Impact Skill Clusters are 'validation of thinking' (cognitive domain), 'communicating informally' (social domain), 'valuing intellect' (affective domain), 'defining receiver needs' (assessment domain), and 'reflecting' (assessment domain). Many high-impact growth skills have companion 'shoulder skills' within the same cluster that reinforce one another and help to make consciousness of growth more complete. Focusing on specific sets of growth skills will be more concrete and actionable to users than referencing the general professional skill areas in which these are contained, as they offer more educative traction than phrases such as 'leadership,' 'communication,' 'cultivating cultural and racial understanding,' 'sense of social responsibility,' and 'critical thinking.' As such, some of the High-Impact Growth Skills and their associated CLS clusters can serve as a powerful short list of personal development skills that can enhance curriculum approaches based on constructs such as the NACE competencies.

## Recommendations

This work inventories a substantial list of learning skills that contributed to each of the criteria in Figure 1. However, the authors did not weight the skills by the strength of their application for individual criteria. Further analysis and rating of the skills that match a particular criterion in the Growth Skill Rubric (Figure 1) could produce a priority list of learning skills for each of the criteria. The most powerful skills for addressing an individual criterion may or not be equally prominent across all the criteria considered in this work. As such, the priority list for specific criteria is likely to include some learning skills outside the growth skills indicated in this research.

The final two tables in the Appendix cite changes in skill listings, skill labels, and skill definitions for CLS that emerged as a result of this work and which the authors recommend. The way in which these are enumerated provides a model for keeping track of modifications to the CLS moving forward. We strongly recommend that a core group of Process Educators review this tracking system, make appropriate modifications, and commit to maintain a vetted tracking system so that the CLS can evolve with a transparent history of the changes made over time. Inasmuch as the electronic version of the CLS ([www.processeducation.org/cls/web](http://www.processeducation.org/cls/web)) is the most frequently used tool for accessing learning skills by PE practitioners, it would be beneficial to include indicators about which learning skills are Other growth skills or High Growth Skills. A single asterisk might denote the former and a double asterisk might denote the latter, for example.

The 77 high-impact growth skills deserve further vetting to discern which are most highly supported in the self-help literature as well as how these reinforce NACE competencies and other accreditation standards. A comparative analysis of the high-impact growth skills through this lens would be a valuable addition to the Process Education literature. High-impact growth skills are also good candidates for skill-specific performance measures that would include rich performance descriptions, key dimensions, and statements at five levels of performance quality for paired dimensions. Such work is ongoing for the original mentoring skills, but it could productively be expanded by the inclusion of the High-Impact Growth Skills.

Finally, the methodology used in this work was effective in isolating and ranking growth skills. A similar approach could be adopted to discern CLS subsets of mentoring and/or self-growth coaching skills.

**Table 1** Classification Rating for Process Areas by Domain

**COGNITIVE DOMAIN**

Process	Number of Skills	Percent...				Other Learning Skills
		High-Impact Growth Skills	Other Growth Skills	Growth Contributors	Performance Enhancing Skills	
Information Processing	24	0%	8%	25%	8%	58%
Critical Thinking	29	41%	34%	3%	0%	21%
Generalizing	25	24%	32%	24%	4%	16%
Problem Solving	16	6%	31%	13%	0%	50%
Discovering, Creating, and Innovating	35	3%	26%	26%	3%	43%
<b>Number of Skills</b>	<b>129</b>	<b>20</b>	<b>34</b>	<b>24</b>	<b>4</b>	<b>47</b>

**SOCIAL DOMAIN**

Process	Number of Skills	Percent...				Other Learning Skills
		High-Impact Growth Skills	Other Growth Skills	Growth Contributors	Performance Enhancing Skills	
Communicating	35	14%	26%	17%	0%	43%
Relating with Others	23	0%	13%	0%	13%	74%
Living In Society	29	14%	28%	28%	7%	24%
Managing	30	17%	10%	10%	7%	57%
Leadership	23	26%	35%	17%	13%	9%
<b>Number of Skills</b>	<b>140</b>	<b>22</b>	<b>31</b>	<b>21</b>	<b>10</b>	<b>58</b>

**AFFECTIVE DOMAIN**

Process	Number of Skills	Percent...				Other Learning Skills
		High-Impact Growth Skills	Other Growth Skills	Growth Contributors	Performance Enhancing Skills	
Engaging Emotionally	44	2%	23%	20%	7%	48%
Expanding Self-Efficacy	51	4%	24%	10%	8%	55%
Clarifying, Building, and Refining Values	46	22%	26%	26%	0%	26%
Personal Growth	18	28%	44%	28%	0%	0%

## AFFECTIVE DOMAIN

Process	Number of Skills	Percent...				Other Learning Skills
		High-Impact Growth Skills	Other Growth Skills	Growth Contributors	Performance Enhancing Skills	
Facilitating Growth Beyond Oneself	19	32%	32%	26%	0%	11%
<b>Number of Skills</b>	<b>178</b>	<b>24</b>	<b>48</b>	<b>36</b>	<b>7</b>	<b>63</b>

## ASSESSMENT AND EVALUATION DOMAIN

Process	Number of Skills	Percent...				Other Learning Skills
		High-Impact Growth Skills	Other Growth Skills	Growth Contributors	Performance Enhancing Skills	
Defining Quality	13	38%	38%	8%	8%	8%
Measuring Quality	5	0%	0%	80%	0%	20%
Assessing Quality	7	43%	43%	14%	0%	0%
Evaluating Quality	5	0%	0%	40%	0%	60%
Providing Feedback on Quality	5	20%	0%	40%	0%	40%
Enhancing Quality	6	0%	17%	67%	0%	17%
Self-Assessing	5	20%	60%	0%	20%	0%
Reflecting	6	50%	33%	17%	0%	0%
<b>Number of Skills</b>	<b>52</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>2</b>	<b>8</b>

**Table 2** High-Impact Growth Skills by Domain

Domain	Number of Skills	Number of High-Impact Growth Skills	Percent of High-Impact Growth Skills
Cognitive	129	20	16%
Social	140	20	14%
Affective	178	24	13%
Assessment and Evaluation	52	13	25%
<b>TOTAL</b>	<b>499</b>	<b>77</b>	<b>15%</b>



**Table 3** High-Impact Growth Skills by CLS Organization

**COGNITIVE DOMAIN**

Cluster	High Impact Growth Skill	Percent
<b>Critical Thinking</b>		
1. Analyzing	<b>Inquiring:</b> asking key questions	94%
	<b>Identifying schemas:</b> finding existing models to characterize a phenomenon	75%
2. Reasoning	<b>Interpreting:</b> adding meaning for better understanding	100%
	<b>Inferring:</b> drawing conclusions from evidence and logic	81%
3. Synthesizing	<b>Recognizing patterns:</b> recognizing and describing the structure of repeating elements	81%
	<b>Making connections:</b> reorganizing elements to reveal insights that are of greater value	81%
4. Decision Making	<b>Predicting:</b> forecasting from experience and current knowledge	88%
	<b>Deciding:</b> making a determination based on available information	94%
<b>Critical Thinking (continued)</b>		
5. Self-Regulation of Thinking	<b>Thinking agilely:</b> choosing the appropriate cognitive skills for the context	100%
	<b>Thinking tangentially:</b> exploring related ideas sparked from current thought	81%
	<b>Redirecting focus:</b> moving back and forth among different processes and contexts	81%
	<b>Thinking skeptically:</b> testing against fundamental principles/schemas	75%
<b>Generalizing</b>		
1. Contextualizing	<b>Clarifying conditions:</b> sizing up a situation	88%
	<b>Clarifying expectations:</b> defining a desired standard of quality or outcome	75%
2. Modeling	<b>Identifying factors:</b> recognizing the important contributions to a situation	94%
3. Systems Thinking	<b>Visualizing:</b> creating a mental image of how parts make a whole	94%
	<b>Being process-oriented:</b> creating and using methodologies	75%
5. Validating Results	<b>Ensuring fitness:</b> checking that results match parameters of a situation	100%
<b>Problem Solving</b>		
1. Clarifying the Problem	<b>Identifying issues:</b> pointing out things that must be addressed to get to end state for all stakeholders	81%
<b>Discovering, Creating, and Innovating</b>		
1. Identifying Direction	<b>Defining the current state:</b> identifying relevant characteristics from the present condition	75%

**SOCIAL DOMAIN**

Cluster	High Impact Growth Skill	Percent
<b>Communicating</b>		
2. Preparing a Message	<b>Articulating an idea:</b> distilling the essence of the message	81%

## SOCIAL DOMAIN

Cluster	High Impact Growth Skill	Percent
4. Writing a Message	<b>Documenting:</b> capturing the details of something (a solution, a discussion, an incident, etc.)	81%
6. Communicating Informally, Orally	<b>Checking perception:</b> testing to see if what you think is happening is happening	81%
	<b>Opining:</b> speaking from one's perspective, value, or beliefs	75%
	<b>Conversing:</b> engaging others while exchanging information	88%
<b>Living in Society</b>		
3. Performing in an Institution	<b>Being assertive:</b> projecting self-assurance and self-confidence	88%
	<b>Being principled:</b> applying or standing by your values, convictions, and beliefs in the face of adversity	81%
5. Performing in a Culture	<b>Analyzing a culture:</b> determining the key societal differences	88%
6. Mentoring	<b>Believing in someone:</b> transparently providing substance so they believe in what they can become	81%
<b>Managing</b>		
4. Managing Resources	<b>Using information technology:</b> taking advantage of data management tools	94%
5. Managing Communications	<b>Staying informed:</b> intentionally acquiring information for decision making	75%
6. Managing Projects	<b>Initiating:</b> ensuring start of a project	81%
7. Facilitating Group Process	<b>Developing connectedness:</b> developing the shared experiences as agency	75%
	<b>Creating a growth culture:</b> Building an environment for increasing individuals' capabilities	81%
<b>Leadership</b>		
1. Envisioning	<b>Perceiving implications:</b> describing the operational social impacts of future trends	94%
	<b>Balancing perspectives:</b> avoiding tunnel vision by considering different points of view	75%
2. Building a Following	<b>Demonstrating integrity:</b> responding to issues with clear and consistent principles	81%
3. Establishing Culture	<b>Maintaining transparency:</b> ensuring open access to information, data, and strategies	75%
5. Facilitating Change Process	<b>Thinking opportunistically:</b> using positive strategies to optimize advantage	75%
	<b>Responding to change:</b> being flexible in strategic thinking	75%

## AFFECTIVE DOMAIN

Cluster	High Impact Growth Skill	Percent
<b>Engaging Emotionally</b>		
4. Engaging Situationally	<b>Being focused:</b> being attentive to what is happening	81%

## AFFECTIVE DOMAIN

Cluster	High Impact Growth Skill	Percent
<b>Expanding Self-Efficacy</b>		
1. Preparing for a Performance	<b>Recognizing unmet need:</b> finding what is “empty” (missing) in the current situation	81%
2. Performing in Real-time	<b>Being fully engaged:</b> being completely immersed in an experience	88%
<b>Clarifying, Building, and Refining Values</b>		
2. Valuing Independent Self	<b>Accepting ownership:</b> being responsible about what you promised to contribute	94%
	<b>Being true to self:</b> Walking the walk of your values; following your inner compass	100%
3. Valuing Self in Relation to Others	<b>Associating with high performers:</b> seeking out those with integrated achievements and values	75%
<b>Clarifying, Building, and Refining Values (continued)</b>		
5. Valuing Intellect	<b>Valuing knowledge:</b> learning from any source at any time for any purpose	75%
	<b>Valuing alternate perspectives:</b> wanting to know others’ ways of reasoning and making meaning	75%
	<b>Valuing thinking:</b> appreciating the power of cognitive processes	75%
	<b>Valuing best practices:</b> being willing to assimilate and integrate what others do effectively	81%
7. Valuing Life Opportunities	<b>Valuing growth:</b> appreciating opportunities for increasing your capacity	88%
9. Expanding and Validating Your Value System	<b>Validating personal impact:</b> recognizing the effect you have	75%
	<b>Making meaning:</b> valuing experiences or insights that push you beyond your current concerns	81%
<b>Personal Growth</b>		
1. Clarifying Your Personal Identity	<b>Growing role identities:</b> Experiencing life to prioritize and identify the key roles to develop	94%
2. Visioning Future Self	<b>Setting growth goals:</b> identifying direction to increase capacity with plans to do so	75%
3. Facilitating Self-Growth	<b>Accepting consequences:</b> agreeing to bear or own the full outcome of an action or decision	81%
	<b>Committing to success:</b> devoting yourself to accomplishing your goals or triumphing in a challenge	100%
4. Self-Regulation	<b>Prioritizing:</b> consistently putting the most important things first	88%
<b>Facilitating Growth Beyond Oneself</b>		
1. Moving Out in Front	<b>Feeling empowered:</b> having all the factors needed to make a significant endeavor possible	81%
	<b>Championing:</b> working on behalf of those denied equity or who are victimized	75%
2. Moving Beyond Yourself Emotionally	<b>Behaving honorably:</b> exhibiting the highest standards of virtue and integrity	88%
	<b>Using one’s social power:</b> exerting influence on others to achieve broad goals	75%

## AFFECTIVE DOMAIN

Cluster	High Impact Growth Skill	Percent
4. Moving Outside of Yourself	<b>Being courageous:</b> taking action in spite of fear	75%
	<b>Being compassionate:</b> being moved by suffering and motivated to show sympathy, kindness, or caring	75%

## ASSESSMENT AND EVALUATION DOMAIN

Cluster	High Impact Growth Skill	Percent
<b>Defining Quality</b>		
1. Defining Receiver Needs	<b>Analyzing needs:</b> finding the qualities a receiver desires	94%
	<b>Defining characteristics:</b> determining the key factors that impact a receiver's affective reaction	88%
	<b>Raising expectations:</b> influencing receiver's mindset towards wants, desires or anticipation	81%
<b>Defining Quality</b> (continued)		
2. Defining Quality of Results	<b>Setting criteria:</b> choosing the important characteristics that represent quality	88%
3. Defining Quality in Performance	<b>Describing performance:</b> preparing a picture of expected actions or steps in process(es)	81%
	<b>Defining performance characteristics:</b> recognizing key features of actions or nuances in the process(es)	94%
<b>Assessing Quality</b>		
1. Preparing for Improvement	<b>Being proactive:</b> seeing opportunities for initiating improvement	94%
	<b>Designing an assessment:</b> collaborating with assessee to structure the specific process	75%
2. Implementing Assessment	<b>Applying criteria:</b> aligning observations (evidence), analyses and feedback to focus areas	100%
<b>Providing Feedback On Quality</b>		
1. Providing Feedback on Quality	<b>Being non-judgmental:</b> withholding or avoiding using one's personal standards or opinions	100%
<b>Reflecting</b>		
1. Reflecting	<b>Seeing prompts:</b> knowing when reflection is needed and will produce significant value	88%
	<b>Being metacognitive:</b> stepping back to better understand one's thinking, affective, and social learning skills	81%
	<b>Practicing reflection:</b> increasing comprehension of new truths about identities, values, feelings, and actions	75%

**Table 4** Pareto Chart of High-Impact Growth Skills

High Impact Growth Skill	Percent	Domain	Process	Cluster
<b>Interpreting:</b> adding meaning for better understanding	100%	Cognitive	Critical Thinking	Reasoning
<b>Thinking agilely:</b> choosing the appropriate cognitive skills for the context	100%	Cognitive	Critical Thinking	Self-Regulation of Thinking
<b>Ensuring fitness:</b> checking that results match parameters of a situation	100%	Cognitive	Generalizing	Validating Results
<b>Being true to self:</b> Walking the walk of your values; following your inner compass	100%	Affective	Clarifying, Building, and Refining Values	Valuing Independent Self
<b>Committing to success:</b> devoting yourself to accomplishing your goals or triumphing in a challenge	100%	Affective	Personal Growth	Facilitating Self-Growth
<b>Applying criteria:</b> aligning observations (evidence), analyses and feedback to focus areas	100%	Assessment & Evaluation	Assessing Quality	Implementing Assessment
<b>Being non-judgmental:</b> withholding or avoiding using one's personal standards or opinions	100%	Assessment & Evaluation	Providing Feedback on Quality	Providing Feedback on Quality
<b>Inquiring:</b> asking key questions	94%	Cognitive	Critical Thinking	Analyzing
<b>Deciding:</b> making a determination based on available information	94%	Cognitive	Critical Thinking	Decision Making
<b>Identifying factors:</b> recognizing the important contributions to a situation	94%	Cognitive	Generalizing	Modeling
<b>Visualizing:</b> creating a mental image of how parts make a whole	94%	Cognitive	Generalizing	Systems Thinking
<b>Using information technology:</b> taking advantage of data management tools	94%	Social	Managing	Managing Resources
<b>Perceiving implications:</b> describing the operational social impacts of future trends	94%	Social	Leadership	Envisioning
<b>Accepting ownership:</b> being responsible about what you promised to contribute	94%	Affective	Clarifying, Building, and Refining Values	Valuing Independent Self
<b>Growing role identities:</b> Experiencing life to prioritize and identify the key roles to develop	94%	Affective	Personal Growth	Clarifying Your Personal Identity
<b>Analyzing needs:</b> finding the qualities a receiver desires	94%	Assessment & Evaluation	Defining Quality	Defining Receiver Needs
<b>Being proactive:</b> seeing opportunities for initiating improvement	94%	Assessment & Evaluation	Assessing Quality	Preparing for Improvement
<b>Predicting:</b> forecasting from experience and current knowledge	88%	Cognitive	Critical Thinking	Decision Making
<b>Clarifying conditions:</b> sizing up a situation	88%	Cognitive	Generalizing	Contextualizing

High Impact Growth Skill	Percent	Domain	Process	Cluster
<b>Conversing:</b> engaging others while exchanging information	88%	Social	Communicating	Communicating Informally, Orally
<b>Being assertive:</b> projecting self-assurance and self-confidence	88%	Social	Living in Society	Performing in an Institution
<b>Analyzing a culture:</b> determining the key societal differences	88%	Social	Living in Society	Performing in a Culture
<b>Being fully engaged:</b> being completely immersed in an experience	88%	Affective	Expanding Self-Efficacy	Performing in Real-time
<b>Valuing growth:</b> appreciating opportunities for increasing your capacity	88%	Affective	Clarifying, Building, and Refining Values	Valuing Life Opportunities
<b>Prioritizing:</b> consistently putting the most important things first	88%	Affective	Personal Growth	Self-Regulation
<b>Behaving honorably:</b> exhibiting the highest standards of virtue and integrity	88%	Affective	Facilitating Growth Beyond Oneself	Moving Beyond Yourself Emotionally
<b>Defining characteristics:</b> determining the key factors that impact a receiver's affective reaction	88%	Assessment & Evaluation	Defining Quality	Defining Receiver Needs
<b>Setting criteria:</b> choosing the important characteristics that represent quality	88%	Assessment & Evaluation	Defining Quality	Defining Quality of Results
<b>Seeing prompts:</b> knowing when reflection is needed and will produce significant value	88%	Assessment & Evaluation	Reflecting	Reflecting
<b>Inferring:</b> drawing conclusions from evidence and logic	81%	Cognitive	Critical Thinking	Reasoning
<b>Recognizing patterns:</b> recognizing and describing the structure of repeating elements	81%	Cognitive	Critical Thinking	Synthesizing
<b>Making connections:</b> reorganizing elements to reveal insights that are of greater value	81%	Cognitive	Critical Thinking	Synthesizing
<b>Thinking tangentially:</b> exploring related ideas sparked from current thought	81%	Cognitive	Critical Thinking	Self-Regulation of Thinking
<b>Redirecting focus:</b> moving back and forth among different processes and contexts	81%	Cognitive	Critical Thinking	Self-Regulation of Thinking
<b>Identifying issues:</b> pointing out things that must be addressed to get to end state for all stakeholders	81%	Cognitive	Problem Solving	Clarifying the Problem
<b>Articulating an idea:</b> distilling the essence of the message	81%	Social	Communicating	Preparing a Message
<b>Documenting:</b> capturing the details of something (a solution, a discussion, an incident, etc.)	81%	Social	Communicating	Writing a Message

High Impact Growth Skill	Percent	Domain	Process	Cluster
<b>Checking perception:</b> testing to see if what you think is happening is happening	81%	Social	Communicating	Communicating Informally, Orally
<b>Being principled:</b> applying or standing by your values, convictions, and beliefs in the face of adversity	81%	Social	Living in Society	Performing in an Institution
<b>Believing in someone:</b> transparently providing substance so they believe in what they can become	81%	Social	Living in Society	Mentoring
<b>Initiating:</b> ensuring start of a project	81%	Social	Managing	Managing Projects
<b>Creating a growth culture:</b> Building an environment for increasing individuals' capabilities	81%	Social	Managing	Facilitating Group Process
<b>Demonstrating integrity:</b> responding to issues with clear and consistent principles	81%	Social	Leadership	Building a Following
<b>Being focused:</b> being attentive to what is happening	81%	Affective	Engaging Emotionally	Engaging Situationally
<b>Recognizing unmet need:</b> finding what is "empty" (missing) in the current situation	81%	Affective	Expanding Self-Efficacy	Preparing for a Performance
<b>Valuing best practices:</b> being willing to assimilate and integrate what others' do effectively	81%	Affective	Clarifying, Building, and Refining Values	Valuing Intellect
<b>Making meaning:</b> valuing experiences or insights that push you beyond your current concerns	81%	Affective	Clarifying, Building, and Refining Values	Expanding and Validating Your Value System
<b>Accepting consequences:</b> agreeing to bear or own the full outcome of an action or decision	81%	Affective	Personal Growth	Facilitating Self-Growth
<b>Feeling empowered:</b> having all the factors needed to make a significant endeavor possible	81%	Affective	Facilitating Growth Beyond Oneself	Moving Out in Front
<b>Raising expectations:</b> influencing receiver's mindset towards wants, desires or anticipation	81%	Assessment & Evaluation	Defining Quality	Defining receiver needs
<b>Describing performance:</b> preparing a picture of expected actions or steps in process(es)	81%	Assessment & Evaluation	Defining Quality	Defining Quality in Performance
<b>Being metacognitive:</b> stepping back to better understand one's thinking, affective, and social learning skills	81%	Assessment & Evaluation	Reflecting	Reflecting
<b>Identifying schemas:</b> finding existing models to characterize a phenomenon	75%	Cognitive	Critical Thinking	Analyzing
<b>Thinking skeptically:</b> testing against fundamental principles/schemas	75%	Cognitive	Critical Thinking	Self-Regulation of Thinking

High Impact Growth Skill	Percent	Domain	Process	Cluster
<b>Clarifying expectations:</b> defining a desired standard of quality or outcome	75%	Cognitive	Generalizing	Contextualizing
<b>Being process-oriented:</b> creating and using methodologies	75%	Cognitive	Generalizing	Systems Thinking
<b>Defining the current state:</b> identifying relevant characteristics from the present condition	75%	Cognitive	Discovering, Creating, and Innovating	Identifying Direction
<b>Opining:</b> speaking from one's perspective, value, or beliefs	75%	Social	Communicating	Communicating Informally, Orally
<b>Trusting:</b> having faith or belief in another	75%	Social	Relating with Others	Relating Meaningfully
<b>Collaborating:</b> working together for mutual benefit	75%	Social	Relating with Others	Relating Meaningfully
<b>Staying informed:</b> intentionally acquiring information for decision making	75%	Social	Managing	Managing Communications
<b>Developing connectedness:</b> developing the shared experiences as agency	75%	Social	Managing	Facilitating Group Process
<b>Balancing perspectives:</b> avoiding tunnel vision by considering different points of view	75%	Social	Leadership	Envisioning
<b>Maintaining transparency:</b> ensuring open access to information, data, and strategies	75%	Social	Leadership	Establishing Culture
<b>Thinking opportunistically:</b> using positive strategies to optimize advantage	75%	Social	Leadership	Facilitating Change Process
<b>Responding to change:</b> being flexible in strategic thinking	75%	Social	Leadership	Facilitating Change Process
<b>Associating with high performers:</b> seeking out those with integrated achievements and values	75%	Affective	Clarifying, Building, and Refining Values	Valuing Self in Relation to Others
<b>Valuing knowledge:</b> learning from any source at any time for any purpose	75%	Affective	Clarifying, Building, and Refining Values	Valuing Intellect
<b>Valuing alternate perspectives:</b> wanting to know others' ways of reasoning and making meaning	75%	Affective	Clarifying, Building, and Refining Values	Valuing Intellect
<b>Valuing thinking:</b> appreciating the power of cognitive processes	75%	Affective	Clarifying, Building, and Refining Values	Valuing Intellect
<b>Validating personal impact:</b> recognizing the effect you have	75%	Affective	Clarifying, Building, and Refining Values	Expanding and Validating Your Value System
<b>Setting growth goals:</b> identifying direction to increase capacity with plans to do so	75%	Affective	Personal Growth	Visioning Future Self
<b>Championing:</b> working on behalf of those denied equity or who are victimized	75%	Affective	Facilitating Growth Beyond Oneself	Moving Out in Front



High Impact Growth Skill	Percent	Domain	Process	Cluster
<b>Using one's social power:</b> exerting influence on others to achieve broad goals	75%	Affective	Facilitating Growth Beyond Oneself	Moving Beyond Yourself Socially
<b>Being courageous:</b> taking action in spite of fear	75%	Affective	Facilitating Growth Beyond Oneself	Moving Outside of Yourself
<b>Being compassionate:</b> being moved by suffering and motivated to show sympathy, kindness, or caring	75%	Affective	Facilitating Growth Beyond Oneself	Moving Outside of Yourself
<b>Designing an assessment:</b> collaborating with assessee to structure the specific process	75%	Assessment & Evaluation	Assessing Quality	Preparing for Improvement
<b>Being self-honest:</b> recognizing when one's own filters and assumptions reflect known/new biases	75%	Assessment & Evaluation	Self-Assessing	Self-Assessing
<b>Practicing reflection:</b> increasing apprehension of new truths about identities, values, feelings, and actions	75%	Assessment & Evaluation	Reflecting	Reflecting

## References

- Apple, D., Beyerlein, S., Leise, C., and Baehr, M. (2007) Classification of learning skills. In S. W. Beyerlein, C. Holmes, & D. K. Apple (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance* (4<sup>th</sup> ed.). Lisle, IL: Pacific Crest 43-46.
- 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. (2015). Learning how to learn: Improving the performance of learning. *International Journal of Process Education*, 7(1), 21-28. <https://www.ijpe.online/2015/learning.pdf>
- Apple, D., Duncan, W., & Ellis, W. (2016) Key learner characteristics for academic success. *International Journal of Process Education*, 8(2), 61-82. [https://www.ijpe.online/2016\\_2/2016\\_success2.pdf](https://www.ijpe.online/2016_2/2016_success2.pdf)
- Apple, D., Ellis, W., & Hintze, D. (2016). 25 years of Process Education: Commemorating 25 years of scholarship in Process Education and the 10<sup>th</sup> anniversary of the Academy of Process Educators. *International Journal of Process Education*, 8(1), 3-147. <http://www.ijpe.online/2016/color033116sm.pdf>
- Apple, D, Ellis, W., & Ulbrich, I. (2019). Self-Growth Institute: Final Report and Implications. Hampton, NH: Pacific Crest. [https://www.pcrest.com/public\\_resources/2019\\_SGI\\_report.pdf](https://www.pcrest.com/public_resources/2019_SGI_report.pdf)
- Apple, D. K., 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), 65-85. [https://www.ijpe.online/2021/selfgrowth\\_capability.pdf](https://www.ijpe.online/2021/selfgrowth_capability.pdf)
- Birt, J. (2023, 9 7) *Hard skills vs. soft skills: What's the difference?* Indeed <https://www.indeed.com/career-advice/resumes-cover-letters/hard-skills-vs-soft-skills>
- Burke, K. Lawrence, B., El-Sayed, M., and Apple, D. (2009). Process Education—past, present, and future. *International Journal of Process Education*, 1(1), 36-42. [https://www.ijpe.online/2009/pe\\_hhx.pdf](https://www.ijpe.online/2009/pe_hhx.pdf)
- Council for Higher Education Accreditation. (n.d.). *Accreditation and Federal Policy*. <https://www.chea.org/>
- Coursera Staff (2023, 12 1). *Hard vs soft skills: What's the difference?* Coursera <https://www.coursera.org/articles/hard-skills-vs-soft-skills>

- Hurd, B., Apple, D. K., Beyerlein, S., Ellis, W., Leasure, D., Leise, C., & Nelson, T. (2021). Modeling growth capability—What is it? *International Journal of Process Education*, 12(1), 39-63. [https://www.ijpe.online/2021/modeling\\_growth.pdf](https://www.ijpe.online/2021/modeling_growth.pdf)
- 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., D. Apple, W. Ellis, S. Beyerlein (2023). Nine psychology perspectives for Process Educators. *International Journal of Process Education*, 13(1), 3-27 <https://www.ijpe.online/2023/perspectives.pdf>
- Leise, C., Litynski, D. M., Woodbridge, C. M., 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](http://www.ijpe.online/2019/cls_full1.pdf)
- McMasters, J. H. (2007). Influencing student learning: An industry perspective. *International Journal of Engineering Education*, 22(3), 447. [https://www.ijee.ie/articles/Vol22-3/04\\_ijee1757.pdf](https://www.ijee.ie/articles/Vol22-3/04_ijee1757.pdf)
- National Association of Colleges and Employers (2022). *Career readiness: Development and Validation of NACE Career Readiness Competencies*. <https://www.nacweb.org/uploadedFiles/files/2022/resources/2022-nace-career-readiness-development-and-validation.pdf>
- National Association of Colleges and Employers (2021). *Career Readiness: Competencies for a Career-Ready Workforce*. <https://www.nacweb.org/uploadedfiles/files/2021/resources/nace-career-readiness-competencies-revised-apr-2021.pdf>
- Self-Growth Community. (n.d.). Growth skills. In *Growth and Self-Growth Glossary*. Retrieved February 24, 2024, from <https://www.processeducation.org/moo/moodle/mod/glossary/showentry.php?eid=165>
- Spady, W. (1994). *Outcome-Based education: Critical issues and answers*. American Association of School Administrators, Arlington, VA. <https://files.eric.ed.gov/fulltext/ED380910.pdf>
- Van Slyke, A., Utschig, T., & Apple, D. (2021). Improving performance using the methodology for developing performance. *International Journal of Process Education*, 12(1), 3-20. <http://www.ijpe.online/2021/mdp.pdf>

COGNITIVE DOMAIN

Cluster	Growth Skill	Percent
<b>Information Processing</b>		
2. Locating/ Searching	<b>Identifying need:</b> defining the specific characteristics of the information required	63%
5. Transforming Data	<b>Changing representation:</b> presenting the same object in a new form	56%
<b>Critical Thinking</b>		
1. Analyzing	<b>Deconstructing:</b> breaking into parts	56%
	<b>Identifying similarities:</b> recognizing shared attributes of items	50%
	<b>Identifying differences:</b> recognizing distinctive attributes of items	69%
	<b>Inquiring:</b> asking key questions	94%
	<b>Identifying schemas:</b> finding existing models to characterize a phenomenon	75%
2. Reasoning	<b>Interpreting:</b> adding meaning for better understanding	100%
	<b>Deducing:</b> deriving specific conclusions from general principles	56%
	<b>Inducing:</b> arriving at a general principle by observing specific instances	56%
	<b>Inferring:</b> drawing conclusions from evidence and logic	81%
	<b>Being logical:</b> applying a rational pattern of thinking	63%
3. Synthesizing	<b>Recognizing patterns:</b> recognizing and describing the structure of repeating elements	81%
	<b>Making connections:</b> reorganizing elements to reveal insights that are of greater value	81%
4. Decision Making	<b>Predicting:</b> forecasting from experience and current knowledge	88%
	<b>Identifying consequences:</b> seeing effects that flow from a possible decision	50%
	<b>Deciding:</b> making a determination based on available information	94%
5. Self-Regulation of Thinking	<b>Thinking agilely:</b> choosing the appropriate cognitive skills for the context	100%
	<b>Thinking tangentially:</b> exploring related ideas sparked from current thought	81%
	<b>Redirecting focus:</b> moving back and forth among different processes and contexts	81%
	<b>Thinking skeptically:</b> testing against fundamental principles/schemas	75%
	<b>Accepting assumptions:</b> explicitly recognizing reasonable logical premises	56%
6. Validating Meaning	<b>Recognizing contradictions:</b> identifying when results violate fundamental principles/schemas	63%
	<b>Verifying scope:</b> testing that understanding is equivalent to what can be inferred from data	63%

## COGNITIVE DOMAIN

Cluster	Growth Skill	Percent
<b>Generalizing</b>		
1. Contextualizing	<b>Clarifying conditions:</b> sizing up a situation	88%
	<b>Clarifying expectations:</b> defining a desired standard of quality or outcome	75%
	<b>Transferring:</b> using ideas, analogies, or patterns in a new context	63%
2. Modeling	<b>Identifying factors:</b> recognizing the important contributions to a situation	94%
	<b>Identifying relationships:</b> defining how categories or variables are connected	69%
3. Systems Thinking	<b>Visualizing:</b> creating a mental image of how parts make a whole	94%
	<b>Designing systems:</b> representing components and relationships within certain constraints	56%
	<b>Using schemas/frames:</b> locating the appropriate structure to provide effective orientation	63%
	<b>Being process-oriented:</b> creating and using methodologies	75%
4. Validating Results	<b>Testing:</b> analyzing/enhancing results to satisfy quality expectations	50%
	<b>Capturing evidence:</b> constructing compelling and documented value sets	56%
	<b>Capturing value:</b> seeking broader impact from results	69%
	<b>Ensuring fitness:</b> checking that results match parameters of a situation	100%
<b>Problem Solving</b>		
1. Clarifying the Problem	<b>Identifying issues:</b> pointing out things that must be addressed to get to end state for all stakeholders	81%
	<b>Identifying assumptions:</b> discovering the implicit presumptions or beliefs that may be operative in a given context	69%
2. Structuring a Problem	<b>Subdividing:</b> separating the problem into manageable sub-problems	50%
	<b>Selecting tools:</b> integrating resources that increase effectiveness	56%
	<b>Defining a solution's specifications:</b> clarifying the form of resolution that satisfies all stakeholders	50%
3. Creating Solutions	<b>Harmonizing solutions:</b> integrating sub-resolutions with clean interface into a whole	56%
<b>Discovering, Creating, and Innovating</b>		
1. Identifying Direction	<b>Defining the current state:</b> identifying relevant characteristics from the present condition	75%
	<b>Visualizing the future state:</b> imagining desirable characteristics of a future condition	69%
	<b>Clarifying impact:</b> predicting implications of the change in state	50%

## COGNITIVE DOMAIN

Cluster	Growth Skill	Percent
2. Grounded Exploring	<b>Challenging assumptions:</b> identifying and questioning current theory or conventional wisdom	50%
	<b>Investigating:</b> testing different trials or approaches for viability	69%
	<b>Probing frameworks:</b> selecting direction using theory, schemas, or collective experiences	69%
	<b>Proposing:</b> laying out a path for moving forward to realize merit and impact	56%
<b>Discovering, Creating, and Innovating (continued)</b>		
3. Creative Thinking	<b>Being open minded:</b> welcoming a wide range of ideas	63%
	<b>Using divergent thinking:</b> taking a variety of viewpoints to stimulate ideas	50%
4. Innovating	<b>Envisioning:</b> sharing key details of impact to help visualize the future existence	63%

## SOCIAL DOMAIN

Cluster	Growth Skill	Percent
<b>Communicating</b>		
1. Receiving a Message	<b>Gaining perspective:</b> adopting new points of view based on the message	63%
	<b>Being perceptive:</b> being attuned to what is happening during communication	63%
2. Preparing a Message	<b>Knowing the audience:</b> understanding the background and interests of receivers	56%
	<b>Articulating an idea:</b> distilling the essence of the message	81%
3. Delivering a Message	<b>Explaining:</b> clarifying the message with specifics to increase understanding	63%
	<b>Exposing vulnerability:</b> being willing to share publicly	63%
4. Writing a Message	<b>Documenting:</b> capturing the details of something (a solution, a discussion, an incident, etc.)	81%
	<b>Writing to think:</b> exploring meaning through expressing what comes to mind	50%
	<b>Writing critically:</b> considering evidence from diverse sources to make reasoned conclusions	63%
6. Communicating Informally, Orally	<b>Checking perception:</b> testing to see if what you think is happening is happening	81%
	<b>Speaking to think:</b> exploring meaning by talking about what comes to mind	50%
	<b>Opining:</b> speaking from one's perspective, value, or beliefs	75%
	<b>Conversing:</b> engaging others while exchanging information	88%
	<b>Discussing:</b> arguing for a specific point of view through the exchange of information	63%
<b>Relating with Others</b>		
1. Relating Formally	<b>Seeking mentoring:</b> asking for guidance/support from an expert to grow performance	69%
3. Performing in a Team	<b>Challenging groupthink:</b> Stopping team group when self-reinforcing shuts out alternative ideas	63%
	<b>Resolving conflicts:</b> finding common ground to move past disagreements	50%
<b>Living in Society</b>		

## SOCIAL DOMAIN

Cluster	Growth Skill	Percent
1. Being a Citizen	<b>Accepting civic responsibility:</b> performing roles supporting governance	50%
	<b>Supporting institutions:</b> contributing respectfully to communities and organizations	56%
3. Performing in an Institution	<b>Being assertive:</b> projecting self-assurance and self-confidence	88%
	<b>Using resources:</b> sizing up and using available tools, information, people, and systems	69%
	<b>Being principled:</b> applying or standing by your values, convictions, and beliefs in the face of adversity	81%
<b>Living in Society</b> (continued)		
5. Performing in a Culture	<b>Analyzing a culture:</b> determining the key societal differences	88%
6. Mentoring	<b>Believing in someone:</b> transparently providing substance so they believe in what they can become	81%
7. Living in the World	<b>Integrating history:</b> assimilating/incorporating past events into current situations	50%
	<b>Seeking social justice:</b> working towards a fair distribution of wealth, opportunities, and privileges	50%
	<b>Supporting sustainability:</b> safeguarding future viability through present actions	56%
	<b>Acting globally:</b> being guided locally by awareness of interdependency with the world community	50%
<b>Managing</b>		
3. Managing Human Systems	<b>Providing Professional Development:</b> identifying growth needs and sources for supporting it	69%
4. Managing Resources	<b>Using information technology:</b> taking advantage of data management tools	94%
5. Managing Communications	<b>Staying informed:</b> intentionally acquiring information for decision making	75%
6. Managing Projects	<b>Initiating:</b> ensuring start of a project	81%
	<b>Monitoring:</b> periodically reviewing established milestones	63%
7. Facilitating group process	<b>Developing connectedness:</b> developing the shared experiences as agency	75%
	<b>Building cohesiveness:</b> evolving solidarity in your community	50%
	<b>Creating a growth culture:</b> Building an environment for increasing individuals' capabilities	81%
<b>Leadership</b>		
1. Envisioning	<b>Forecasting:</b> visualizing future status based on trends and logic	69%
	<b>Perceiving implications:</b> describing the operational social impacts of future trends	94%
	<b>Balancing perspectives:</b> avoiding tunnel vision by considering different points of view	75%
2. Building a Following	<b>Involving stakeholders:</b> inviting key individuals to share perspectives and participate in significant activities	50%
	<b>Demonstrating integrity:</b> responding to issues with clear and consistent principles	81%

## SOCIAL DOMAIN

Cluster	Growth Skill	Percent
3. Establishing Culture	<b>Forming shared values:</b> developing consensus on important principles	56%
	<b>Obtaining commitment:</b> securing willingness to tackle challenges required for a vision	56%
	<b>Maintaining transparency:</b> ensuring open access to information, data, and strategies	75%
4. Maintaining a Commitment	<b>Taking meaningful stands:</b> publicly embracing positions based on principles	50%
	<b>Garnering resources:</b> obtaining resources needed for implementing the vision	56%
<b>Leadership (continued)</b>		
5. Facilitating Change Process	<b>Thinking opportunistically:</b> using positive strategies to optimize advantage	75%
	<b>Responding to change:</b> being flexible in strategic thinking	75%
	<b>Preparing for change:</b> facilitating training needed for readiness	50%
6. Empowering	<b>Practicing servant leadership:</b> using the power of ones influence to enhance the well-being of others	69%

## AFFECTIVE DOMAIN

Cluster	Growth Skill	Percent
<b>Engaging Emotionally</b>		
1. Observing Self	<b>Listening to self:</b> tracking the focus of your inner voice	63%
	<b>Perceiving emotions:</b> recognizing and identifying your own and others affective responses	56%
	<b>Discovering motives:</b> finding situations that lead someone to act	69%
	<b>Valuing the emotion:</b> understanding the power of an affective response	56%
2. Checking Emotions	<b>Controlling judgmental self-talk:</b> confronting and changing negative inner messages	50%
	<b>Energizing:</b> invigorating or rousing yourself, especially from boredom or lethargy	50%
3. Expanding Emotions	<b>Risking disapproval:</b> willingness to put yourself in contexts where others may judge you harshly	63%
4. Engaging Situationally	<b>Being focused:</b> being attentive to what is happening	81%
	<b>Being positive:</b> initiating activities or changing situations to maintain confident emotional energy	69%
	<b>Being mindful:</b> appreciating every moment and what it offers	69%
6. Being Resilient	<b>Adapting:</b> changing direction when feedback to do so is reasonable and trusted	63%
<b>Expanding Self-Efficacy</b>		
1. Preparing for a Performance	<b>Recognizing unmet need:</b> finding what is “empty” (missing) in the current situation	81%
	<b>Setting goals:</b> Identifying the purpose and the associated outcomes	63%

## AFFECTIVE DOMAIN

Cluster	Growth Skill	Percent
2. Performing in Real-time	<b>Being fully engaged:</b> being completely immersed in an experience	88%
	<b>Owning performance:</b> wanting to excel by doing it your own way to produce quality	56%
3. Managing One's Emotions	<b>Identifying stressors:</b> having a clear sense of work, home, and life pressures	50%
4. Managing Performance Emotions	<b>Dealing with negative outcomes:</b> accepting and learning from poor results	50%
6. Practicing Social Management	<b>Accepting external expectations:</b> agreeing to quality expectations and time constraints	50%
<b>Expanding Self-Efficacy (continued)</b>		
7. Practicing Intellectual Management	<b>Recognizing self-bias:</b> being conscious of how your values and feelings influence your thinking	63%
	<b>Managing dissonance:</b> seeking consistency when addressing unresolved intellectual conflicts	63%
	<b>Suspending closure:</b> avoiding premature judgements caused by assumptions or unfamiliarity	56%
8. Discerning Reality	<b>Managing a judgment:</b> realizing that traits often are unreliable predictors of capabilities	63%
9. Strengthening Self-Efficacy	<b>Believing in unlimited potential:</b> generalizing from achievements to validate a growth trend	56%
	<b>Analyzing performance:</b> objectively assessing current capacity in a performance area	56%
	<b>Self-challenging:</b> getting out of your comfort zone to increase growth opportunities	56%
<b>Clarifying, Building, and Refining Values</b>		
1. Discerning Values	<b>Sensing wrongness:</b> noticing reactions inconsistent with what you believe and value	50%
	<b>Identifying personal values:</b> recognizing what matters most to you as an individual	56%
2. Valuing Independent Self	<b>Clarifying interests:</b> discovering what is deeply engaging for producing individual value	63%
	<b>Accepting ownership:</b> being responsible about what you promised to contribute before, during, and after any performance	94%
	<b>Staying healthy:</b> assuring long-term well-being of mind, body, and spirit	50%
	<b>Being true to self:</b> Walking the walk of your values; following your inner compass	100%
3. Valuing Self in Relation to Others	<b>Trusting self:</b> knowing that your values and capabilities are the most relevant to your situation	69%
	<b>Committing to self:</b> believing that the value of your life is as important as anyone else's	56%
	<b>Associating with high performers:</b> seeking out those with integrated achievements and values	75%



## AFFECTIVE DOMAIN

Cluster	Growth Skill	Percent
4. Valuing Intellect	<b>Valuing knowledge:</b> learning from any source at any time for any purpose	75%
	<b>Valuing alternate perspectives:</b> wanting to know others' ways of reasoning and making meaning	75%
	<b>Valuing thinking:</b> appreciating the power of cognitive processes	75%
	<b>Being evidence-based:</b> intentionally focusing on facts and data vs. feelings and opinions	56%
	<b>Valuing best practices:</b> being willing to assimilate and integrate what others' do effectively	81%
	<b>Enjoying complexity:</b> finding satisfaction in fully engaging with the natural intricacy of life	69%
<b>Clarifying, Building, and Refining Values</b> (continued)		
5. Valuing Life Opportunities	<b>Embracing change:</b> thriving on the inconsistencies of life and the unpredictability of the future	63%
	<b>Valuing creativity:</b> appreciating using imagination and original ideas to create something	63%
	<b>Valuing growth:</b> appreciating opportunities for increasing your capacity	88%
6. Expanding and Validating Your Value System	<b>Validating personal impact:</b> recognizing the effect you have	75%
	<b>Validating added value:</b> recognizing the worth you have contributed	69%
	<b>Extending Values:</b> challenging your principles in new situations and with diverse people	50%
	<b>Making meaning:</b> valuing experiences or insights that push you beyond your current concerns	81%
<b>Personal Growth</b>		
1. Clarifying Your Personal Identity	<b>Growing identities:</b> experiencing life to prioritize and identify the key roles to develop	94%
	<b>Motivating self:</b> setting up conditions that lead to desired actions	69%
	<b>Being passionate:</b> flourishing by doing those things that create the greatest meaning in your life	56%
2. Visioning Future Self	<b>Setting growth goals:</b> identifying direction to increase capacity with plans to do so	75%
	<b>Gaining perspective:</b> navigating among multiple vantage points to obtain true understanding	63%
3. Facilitating Self-Growth	<b>Accepting consequences:</b> agreeing to bear or own the full outcome of an action or decision	81%
	<b>Changing behaviors:</b> deliberately responding in a new way to old feelings and situations	63%
	<b>Being independent:</b> seeking an appropriate level of autonomy in each role identity	69%
	<b>Committing to success:</b> devoting yourself to accomplishing your goals or triumphing in a challenge	100%

## AFFECTIVE DOMAIN

Cluster	Growth Skill	Percent
4. Self-Regulation	<b>Maintaining balance:</b> practicing moderation	56%
	<b>Prioritizing:</b> consistently putting the most important things first	88%
	<b>Being patient:</b> waiting with equanimity when timing, conditions, and readiness are not right	56%
	<b>Getting unstuck:</b> recognizing the lack of movement towards life's goals and updates strategies	56%
<b>Facilitating Growth Beyond Oneself</b>		
1. Moving Out in Front	<b>Feeling empowered:</b> having all the factors needed to make a significant endeavor possible	81%
	<b>Championing:</b> working for a cause (e.g., person, product)	75%
<b>Facilitating Growth Beyond Oneself (continued)</b>		
2. Moving Beyond Yourself Emotionally	<b>Behaving honorably:</b> exhibiting the highest standards of virtue and integrity	88%
3. Moving Beyond Yourself Socially	<b>Using one's social power:</b> exerting influence on others to achieve broad goals	75%
4. Moving Outside of Yourself	<b>Being courageous:</b> taking action in spite of fear	75%
	<b>Being compassionate:</b> being moved by suffering and motivated to show sympathy, kindness, or caring	75%

## ASSESSMENT AND EVALUATION DOMAIN

Cluster	Growth Skill	Percent
<b>Defining Quality</b>		
1. Defining Receiver Needs	<b>Analyzing needs:</b> finding the qualities a receiver desires	94%
	<b>Defining characteristics:</b> determining the key factors that impact a receiver's affective reaction across all contexts	88%
	<b>Raising expectations:</b> influencing receiver's mindset towards wants, desires or anticipation	81%
	<b>Forecasting needs:</b> determining the new or adapted future desires	56%
	<b>Writing measurable outcomes:</b> documenting a project or process set of expectations for quality	63%
2. Defining Quality of Results	<b>Setting criteria:</b> choosing the important characteristics that represent quality	88%
3. Defining Quality in Performance	<b>Describing performance:</b> preparing a picture of expected actions or steps in process(es)	81%
	<b>Valuing performance:</b> acknowledging excellence in performances	63%
4. Determining the Quality of Match	<b>Determining unmet needs:</b> identifying desired characteristics lacking for receiver	50%
	<b>Determining future match:</b> identifying actual characteristics that cover future needs	63%

## ASSESSMENT AND EVALUATION DOMAIN

Cluster	Growth Skill	Percent
<b>Assessing Quality</b>		
1. Preparing for Improvement	<b>Being proactive:</b> seeing opportunities for initiating improvement	94%
	<b>Designing an assessment:</b> collaborating with assessee to structure the specific process	75%
2. Implementing Assessment	<b>Applying criteria:</b> aligning observations (evidence), analyses and feedback to focus areas	100%
	<b>Identifying SII Opportunities:</b> picking the most valuable areas for analyzing and including in feedback	56%
	<b>Developing action plans:</b> creating short and long-term strategies for improvement	56%
<b>Providing Feedback on Quality</b>		
1. Providing Feedback on Quality	<b>Being non-judgmental:</b> withholding or avoiding using one's personal standards or opinions	100%
<b>Enhancing Quality</b>		
1. Enhancing Quality	<b>Identifying new qualities:</b> finding new dimensions that enhance value for an audience	69%
<b>Self-Assessing</b>		
1. Self-Assessing	<b>Self-monitoring:</b> having a continuous camera on every performance so it can be replayed and assessed	69%
<b>Reflecting</b>		
1. Reflecting	<b>Being self-aware:</b> appreciating opportunities for engaging in reflection	69%
	<b>Self-evaluating:</b> being honest about who you are and where you are with respect to your life vision	63%
	<b>Seeing prompts:</b> knowing when reflection is needed and will produce significant value	88%
	<b>Being metacognitive:</b> stepping back to better understand one's thinking, affective, and social learning skills	81%

Cluster	Performance Enhancer Skills	Percent
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**COGNITIVE DOMAIN**

Information Processing		
3. Organizing	<b>Systematizing:</b> organizing information resources for use	50%
4. Cleaning Data	<b>Ensuring sufficiency:</b> making certain that a data set meets requirements	50%
Generalizing		
1. Contextualizing	<b>Strategizing:</b> mapping out a way to use knowledge	69%
Problem Solving		
2. Structuring a Problem	<b>Defining a solution’s specifications:</b> clarifying the form of resolution that satisfies all stakeholders	50%
Discovering, Creating, and Innovating		
5. Designing	<b>Writing specifications:</b> translating stakeholder needs into requirements that guide the design process	50%

**SOCIAL DOMAIN**

Relating with Others		
1. Relating Formally	<b>Being respectful:</b> showing regard and consideration	69%
2. Relating Meaningfully	<b>Trusting:</b> having faith or belief in another	75%
	<b>Collaborating:</b> working together for mutual benefit	75%
Living in Society		
3. Performing in an Institution	<b>Being professional:</b> meeting expectations within one’s organization	69%
6. Mentoring	<b>Advising:</b> helping a person discover their best possibilities for improvement and success	50%
Managing		
1. Managing Individuals	<b>Motivating:</b> stimulating someone’s interest or enthusiasm to do something	50%
	<b>Supporting needs:</b> identifying and effectively responding to observed lack of resources	50%
Leadership		
2. Building a Following	<b>Inspiring:</b> motivating and encouraging others	56%
4. Maintaining a Commitment	<b>Being accessible:</b> being readily available to others	56%
6. Empowering	<b>Encouraging ownership:</b> engaging others to accept a stake in the vision	50%

Cluster	Performance Enhancer Skills	Percent
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### AFFECTIVE DOMAIN

Engaging Emotionally		
2. Checking Emotions	<b>Inhibiting impulses:</b> consciously restraining sudden urges	56%
4. Engaging Situationally	<b>Being open:</b> seeking and seeing novelty in situations	56%
	<b>Being active:</b> energizing yourself into the situation	63%
Expanding Self-Efficacy		
1. Preparing for a Performance	<b>Being organized:</b> knowing what is needed and where to obtain it	69%
	<b>Being prepared:</b> going over highlights and reminders about an upcoming performance	56%
4. Managing Performance Emotions	<b>Accepting uncertainty:</b> being ready to deal with unpredictable outcomes	50%
6. Practicing Social Management	<b>Being responsible:</b> taking ownership for upholding your commitments	69%

### ASSESSMENT AND EVALUATION DOMAIN

Defining Quality		
3. Defining Quality in Performance	<b>Writing performance criteria:</b> documenting descriptive expectations of desired quality	50%
Self-Assessing		
1. Self-Assessing	<b>Self-mentoring:</b> engaging in intentional self-assessment leading to analysis of self for improvement	75%

### Skills Removed from the Classification of Learning Skills

#### COGNITIVE DOMAIN

Skill	Issue
Transforming representation	This skill is a higher level of Information Processing skill 3. Changing representation: presenting the same object in a new form
Being entrepreneurial	This skill is a process. Many skills are used to bring a viable product to market. Seeing opportunity (recognizing opportunity)
Evolving design mindset	Mindsets require many skills
Using creative application	We do not know what this skill is; it needs refinement or removal. It is not included in our data for this study
Advancing research mindset	Mindsets require many skills
Evolving innovative mindset	Mindsets require many skills

#### AFFECTIVE DOMAIN

Skill	Issue
Experiencing role identities	These skills have been synthesized into one new skill: <b>Growing Identities:</b> Experiencing life to prioritize and identify the key roles to develop
Prioritizing role identities	
Strengthening role identities	

#### ASSESSMENT AND EVALUATION DOMAIN

Skill	Issue
Defining experience characteristics	These two skills are duplicative of the skill <b>Defining characteristics</b>
Defining performance characteristics	
Having assessment mindset	Mindsets require many skills
Focusing on self-improvement	Mindsets require many skills

# APPENDIX C Updates to the Classification of Learning Skills (cont)

## Refinement of Skill Name and/or Definition within the CLS

**Note:** Update is in CAPITAL LETTERS; original skill name provided if updated

### COGNITIVE DOMAIN

Change	Updated Skill
Definition	<b>Ruling out alternatives:</b> determining that ONE RATIONALE is stronger than others proposed

### SOCIAL DOMAIN

Change	Updated Skill
Definition	<b>Writing critically:</b> ANALYZING evidence from diverse sources TO BUILD REASONED ARGUMENTS
Name and Definition	<b>Original:</b> Using dialectic skills <b>New:</b> <b>Engaging dialectically:</b> USING DISCOURSE TO EXCHANGE LOGICAL ARGUMENTS IN A SEARCH FOR TRUTH
Definition	<b>Accommodating:</b> TAKING THE NEEDS OF OTHERS INTO CONSIDERATION
Name and Definition	<b>Original:</b> Esteeming individuals <b>New:</b> <b>Boosting someone's confidence:</b> HELPING ANOTHER APPRECIATE THAT THEY ARE BETTER THAN THEY SEEM TO THINK
Name and Definition	<b>Original:</b> Appreciating myths <b>New:</b> <b>Appreciating FOLKLORE:</b> understanding AND welcoming THE TRADITIONAL BELIEFS, MYTHS, TALES, AND PRACTICES OF A GROUP
Definition	<b>Challenging:</b> PROPOSING THE RAISING OF STANDARDS FOR OTHERS

### AFFECTIVE DOMAIN

Change	Updated Skill
Definition	<b>Discovering motives:</b> DETERMINING THE TRIGGER THAT INDUCES A SELECTED ACT
Definition	<b>Noticing outlier reactions:</b> discerning when THE emotions OF BOTH YOURSELF AND OTHERS SEEM extreme for the context
Definition	<b>Risking disapproval:</b> willingness to put yourself in contexts where others may judge you NEGATIVELY
Name and Definition	<b>Original:</b> Living vibrantly <b>New:</b> <b>BEING MINDFUL:</b> appreciating THE PRESENT and what it offers
<b>Expanding Self-Efficacy</b>	
Definition	<b>Being decisive:</b> MAKING A DEFINITIVE CHOICE QUICKLY
Definition	<b>Supporting:</b> affirming and publicly acknowledging the value of others and their contributions
Name and Definition	<b>Original:</b> Using resources effectively <b>New:</b> <b>ACCESSING NEEDED resources:</b> TAPPING INTO APPROPRIATE SOURCES OF SUPPLY OR SUPPORT TO OVERCOME AFFECTIVE BARRIER

Change	Updated Skill
<b>Expanding Self-Efficacy</b> (continued)	
Name	<b>Original:</b> Reducing self-bias <b>New:</b> <b>RECOGNIZING YOUR OWN Bias:</b> being conscious of how your values and feelings influence your thinking
Name and Definition	<b>Original:</b> Believing in your potential <b>New:</b> <b>BELIEVING IN UNLIMITED POTENTIAL:</b> UNDERSTANDING THAT CURRENT ACHIEVEMENTS DO NOT CONSTRAIN FUTURE PERFORMANCE
<b>Clarifying, Building, and Refining Values</b>	
Definition	<b>Accepting ownership:</b> being responsible AND PERSONALLY ACCOUNTABLE FOR THE CHOICES YOU MAKE
Name	<b>Original:</b> Being socially active <b>New:</b> <b>Being socially INCLUSIVE:</b> publicly pursuing equity in relationships, organizations, and communities
<b>Personal Growth</b>	
New Skill and Definition	<b>Info:</b> Combines three skills: Experiencing role identity, Prioritizing role identity and Strengthening role identity <b>New:</b> <b>GROWING IDENTITIES:</b> EXPERIENCING LIFE TO PRIORITIZE AND IDENTIFY THE KEY ROLES TO DEVELOP
<b>Facilitating Growth Beyond Oneself</b>	
Definition	<b>Championing:</b> working ON BEHALF OF A CAUSE (E.G., PERSON, PRODUCT)

## ASSESSMENT AND EVALUATION DOMAIN

Change	Updated Skill
Definition	<b>Defining characteristics:</b> determining the key factors that impact a receiver's affective reaction ACROSS ALL CONTEXTS
Definition	<b>Maintaining objectivity:</b> Focusing on reporting the FEEDBACK, not responding to personal reactions
Definition	<b>Practicing reflection:</b> increasing UNDERSTANDING OF identities, values, feelings, and actions