



**Reframing Soft Skills for Business Education  
and the AI-Era Workforce**

*A White Paper*

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## Abstract

The term "soft skills" has outlived its usefulness. It actively undermines the very competencies it attempts to describe, those critical abilities that actually drive workplace success. The confusion becomes clear after identifying more than 30 competing alternative names, a phenomenon researchers have described as a "galaxy" of related terms without a unified definition (Touloumakos, 2020). The field clearly lacks a simple, coherent framework that addresses all concerns simultaneously. As Marin-Zapata et al. (2021) pointedly asked in their systematic review: "Do we know what we are talking about?"

The PH&D Skills Framework offers a practical answer. The model reorganizes these competencies into three direct categories: Professional Skills (workplace-specific competencies that directly boost job performance), Human Skills (interpersonal abilities that make collaboration possible), and Durable Skills (foundational qualities for long-term resilience and effectiveness). This white paper presents the complete framework comprising 51 skills organized across three categories and 12 thematic domains, ranked by developmental importance for business students entering their careers. The framework is grounded in a peer-reviewed empirical foundation: a published study of 805 human resource professionals and business students that validated three-category skill organization and identified specific priority gaps between employer expectations and student perceptions (Richie, Pragman, & Bowyer, 2022). The current 51-skill structure refines that validated three-category model and is itself undergoing ongoing validation.

The paper incorporates evidence-based analysis of how artificial intelligence is reshaping skill demand and includes the AKA (Awareness, Knowledge, Action) methodology for implementation, along with category-specific assessment implications. Drawing on research from the World Economic Forum, America Succeeds, NACE, SHRM, AACSB, and established learning theory including Bloom's Revised Taxonomy (Anderson & Krathwohl, 2001), Kolb's Experiential Learning Cycle (Morris, 2019), Self-Determination Theory (Ryan & Deci, 2000), and Social Cognitive Career Theory (Lent, Brown, & Hackett, 1994), the paper positions PH&D skills not as secondary additions to technical expertise, but as the capabilities that form the backbone of modern and future workforce effectiveness.

*Keywords: PH&D skills, soft skills, professional development, business education, workforce readiness, AI-era skills, competency framework, experiential learning, terminology crisis, social cognitive career theory, assessment*

# The Terminology Crisis

## The Problem with "Soft Skills"

The modern workforce increasingly demands professionals equipped with strong interpersonal and behavioral competencies, commonly referred to as soft skills (Robles, 2012). A frequently cited claim holds that roughly 85% of job success stems from well-developed soft skills (National Soft Skills Association, n.d.); this figure is widely repeated but its original empirical basis is contested, and it is offered here only as an illustration of prevailing sentiment rather than as established fact. More rigorous labor-market evidence makes the same point with firmer support: the World Economic Forum reports that 39% of workers' core skills are expected to change by 2030, down from 44% in 2023, a level of disruption that places a premium on durable, transferable competencies (World Economic Forum, 2025).

Yet the term "soft skills" creates more problems than it solves. The word "soft" implies lesser value or rigor compared to technical capabilities, a critique that has gained significant momentum in recent literature (Polaková et al., 2023; Arora, 2025). It creates a false hierarchy between "hard" technical skills and "soft" interpersonal skills. As an umbrella term, it provides little guidance for development or assessment. Employers struggle to communicate expectations using it, and individuals do not know how to strategically develop or market these competencies.

Nam (2023) challenges the terminology from a practitioner standpoint, observing that looking up "soft" in the dictionary surfaces descriptors like agreeable, quiet, subdued, easy, impressionable, and weak. The soft/hard binary is not merely imprecise; it actively misrepresents these competencies by assigning more value to measurable output than to the human character that produces it. Nam (2023) concludes plainly that the skills we call "soft" are the skills we need the most.

The scope of this definitional problem is significant. The meaning of "soft skills" has broadened to include interpersonal abilities, personal traits like adaptability and integrity, cognitive capacities like problem-solving, attitudes like willingness to learn, and even values like work ethic (Touloumakos, 2020; Marin-Zapata et al., 2021; Avdeeva et al., 2024). This expansion has created what Touloumakos (2020) describes as a "galaxy" of related terms, all used without a unified definition.

The definitional problem runs deeper than imprecision. Research confirms that the meaning of 'soft skills' has expanded so broadly that it now encompasses interpersonal abilities, personal traits, cognitive capacities, attitudes, and even values — all without a unifying definition (Touloumakos, 2020). Touloumakos (2020) characterized this as a 'galaxy' of related terms, and Marin-Zapata et al. (2021) asked pointedly whether the field even knows what it is talking about. A peer-reviewed analysis of the soft skills literature reinforced this concern directly, arguing that the term has become so expansive it collapses into ambiguity — what the authors describe as 'expanded yet restricted' — simultaneously too broad to be useful and too vague to produce coherent curricula or assessment strategies (Touloumakos, 2020). This is not a semantic inconvenience. When terminology fails, development fails with it.

## **A Galaxy of Competing Alternatives**

More than 30 alternative names have been proposed by various organizations, researchers, and practitioners. The analysis reveals five distinct emphasis patterns, each capturing a legitimate dimension but none capturing the full picture:

- Emphasizing importance: Power skills, essential skills, core skills, success skills, critical skills
- Emphasizing transferability: Transferable skills, portable skills, durable skills, universal skills, cross-functional skills
- Emphasizing human connection: People skills, human skills, interpersonal skills, social skills, relational skills
- Emphasizing workplace relevance: Workplace skills, career skills, professional skills, employability skills
- Emphasizing future adaptability: 21st-century skills, future skills, adaptive skills, future-ready skills

No single replacement term has achieved consensus (Ramírez-Ramírez et al., 2025; Thornhill-Miller et al., 2023; Lamri & Lubart, 2023; Arora, 2025). In practice, "dual labeling" has become common, with researchers using phrases like "generic/soft" or "21st-century/soft" as a transitional compromise (Ramírez-Ramírez et al., 2025). Even the researchers studying these skills cannot agree on what to call them.

## Historical Context

The term "soft skills" originated from 1968–1972 U.S. military training manuals, which attempted to distinguish technical military skills from interpersonal and leadership competencies. A 1972 U.S. Army conference recommended discontinuing the term, but it persisted anyway (Matteson et al., 2016). The very institution that coined the phrase recognized its inadequacy over fifty years ago.

The need for these competencies predates the terminology by decades. A 1916 article in *Engineering Education* observed that personal qualities such as "common sense, integrity, resourcefulness, initiative, tact, thoroughness, accuracy, efficiency, and understanding of men are universally recognized as being no less necessary to a professional engineer than our technical knowledge and skill." The skills have always mattered. The language has always been the problem.

## The Acceleration Phase

The period from 2020 to 2025 saw a remarkable acceleration in both demand and recognition that terminology needed to change. NACE conducted a major competency revision with 300+ member input in 2020. *America Succeeds* demonstrated that durable skill demand in job postings rose from 64% in 2021 to 76% by 2025 (*America Succeeds & Lightcast, 2025, Durable by Design*). The World Economic Forum reported that the share of core skills expected to change had stabilized at 39% by 2030, down from a 44% estimate in 2023. Major corporations began abandoning the "soft skills" label entirely.

Bibliometric research confirmed the trend. Zahn et al. (2024) documented the field's expansion in volume and conceptual complexity, with terminology remaining a central challenge. A systematic review of interventions found that diverse approaches consistently improve student competencies, yet assessment remains complicated by definitional ambiguity (Orih et al., 2024). The result is a field in crisis, but also a field ready for a solution. What has been missing is not motivation to change, but a coherent framework to change toward.

# Introducing the PH&D Framework

## A Unifying Solution

The PH&D Skills Framework offers a practical solution to this terminology crisis. Rather than proposing yet another single replacement term, the model reorganizes workplace competencies into three direct, interconnected categories: Professional Skills, Human Skills, and Durable Skills. Each category captures a distinct dimension of what makes people effective at work, yet the categories function as an integrated system rather than isolated silos.

What makes the PH&D framework different from its 30+ competitors? It addresses multiple concerns simultaneously. Where "power skills" emphasizes importance but ignores transferability, where "transferable skills" captures portability but misses workplace relevance, and where "people skills" focuses on human connection but overlooks personal resilience, PH&D captures all of these dimensions within a single, memorable structure. Furthermore, the PhD association lends academic credibility that reinforces the scholarly rigor behind the framework.

Importantly, PH&D also differs structurally from the frameworks most commonly used in higher education. NACE's career readiness model organizes eight competencies in a flat list without developmental sequencing or explicit interconnection between skills. AACSB's accreditation standards identify broad learning goals but leave specific skill organization to individual programs. The closest parallel is the America Succeeds Durable Skills Framework (now delivered through the Pathsmith platform), an employer-validated lexicon built by cross-walking existing skill taxonomies into ten competency buckets and validating them against more than 75 million job postings (America Succeeds & Lightcast, 2025). That framework is a powerful demand-side instrument: it documents, with unmatched scale, which skills the labor market actually requests. PH&D is built for a different purpose. Where the America Succeeds model is organized around labor-market keyword frequency and centers on durable skills specifically, PH&D organizes the full span of non-technical competence into three developmental categories, sequences skills across career stages, and pairs each with an explicit implementation and assessment logic through the AKA methodology. The two are complementary rather than competing: the America Succeeds data establishes that these skills are in demand, while PH&D offers educators and individuals a structure for developing and assessing them. Lamri and Lubart (2023) proposed a "Generic Skills Component Approach" to reconcile hard and soft



skills, demonstrating that the academic community recognizes the need for unifying models. The PH&D framework contributes to this conversation while offering a more practical, implementation-ready structure: three named categories, 12 thematic domains, developmental clustering aligned with career stages, and explicit assessment implications. It provides the organizing architecture that flat lists and broad standards cannot.

## **Framework Structure**

The framework identifies 51 skills organized across three categories and 12 thematic domains. Of the 51 skills, 49 appear in at least two categories. This overlap is intentional and reflects how skills actually function in the real world. A person exercising leadership is simultaneously drawing on Professional Skills (strategic thinking, delegation), Human Skills (communication, empathy), and Durable Skills (adaptability, integrity). The interconnection validates the framework rather than undermining it.

Skills are assigned to their primary category based on where they are most directly developed, most visibly assessed, and most immediately applied in workplace contexts. Professional Skills are primarily role-performance competencies observed through work outputs and organizational contribution. Human Skills are primarily relational competencies observed through interaction quality and collaborative effectiveness. Durable Skills are primarily internal capacities observed through sustained effectiveness across changing contexts. The "Also in" designations reflect that effective practice of any skill draws on capabilities across categories, but primary classification follows this functional logic.

The framework also incorporates developmental sequencing. Within each category, skills are organized into clusters that align with career progression: foundational skills needed in the first 90 days, differentiating skills that emerge in the first year, and advanced skills that compound with experience and authority. This sequencing transforms PH&D from a descriptive taxonomy into a prescriptive development model.

## At a Glance

| Category            | Definition                                                          | Replaces These Competing Terms                                            |
|---------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------|
| Professional Skills | Workplace-specific competencies that directly boost job performance | Career skills, Workplace skills, Employability skills                     |
| Human Skills        | Interpersonal abilities that make collaboration possible            | People skills, Social skills, Interpersonal skills                        |
| Durable Skills      | Foundational qualities for long-term resilience and effectiveness   | Transferable skills, Future skills, Essential skills, Foundational skills |

## Category Definitions

### Professional Skills: The Workplace Engine

#### ***Workplace-specific competencies that directly boost job performance***

Professional Skills are the competencies that directly drive organizational effectiveness and individual job performance. These are the skills that show up in performance reviews, get mentioned in promotion conversations, and determine whether someone is seen as a capable contributor or just someone filling a seat. They are learnable, measurable, and tied to specific workplace applications.

Think of Professional Skills as the engine of a career. Technical knowledge might get you in the door, but Professional Skills determine how effectively you operate once you are inside. A financial analyst who understands spreadsheets but cannot manage a project timeline, present findings to leadership, or delegate tasks within a team will plateau quickly. The technical knowledge is necessary but insufficient.

Key characteristics: Learnable and developable through targeted training and mentorship. Measurable and observable through visible outcomes like met deadlines, well-structured deliverables, and team performance. Role-specific in application but transferable in principle across industries.

Why "Professional": The term replaces "career skills," "workplace skills," and "employability skills," each of which carries limitations. "Professional" in this context refers to the execution

competencies that drive workplace performance, not to professional etiquette, licensure, or generic professionalism. No one dismisses something described as "professional" the way they might dismiss something labeled "soft."

Development approach: Targeted training, mentorship, practical application, and workplace experience. These skills respond well to structured development programs because their outcomes are observable and feedback loops are direct.

## **Human Skills: The Relationship Foundation**

### ***Interpersonal abilities that make collaboration possible***

Human Skills are the interpersonal and social competencies that enable people to work effectively with others. These skills determine whether a team actually functions as a team or simply coexists as a group of individuals sharing a project name. They govern how we communicate, build trust, navigate disagreements, and create environments where diverse perspectives can contribute.

No one succeeds alone. Regardless of how technically brilliant or professionally polished an individual may be, their effectiveness is multiplied or diminished by their ability to connect with other people. Human Skills are that multiplier. A project manager with excellent organizational skills but poor empathy will lose the team. A sales professional with strong presentation skills but weak active listening will lose the client.

Key characteristics: Culturally influenced, operating within cultural, generational, and organizational contexts. Emotionally grounded, deeply connected to emotional intelligence as described by Goleman (1995). Relationship-focused, building the relational infrastructure that makes sustained collaboration possible.

The empirical case for emotional intelligence as a core Human Skill is well established. A Yale study found that emotional intelligence helps professionals make better decisions at work. A Harvard study showed that emotional intelligence was more helpful than IQ in predicting team success. And Google's decade-long Project Oxygen study found that emotional intelligence matters more to one's success as a manager than IQ or technical skill (Limon & Plaster, 2022). Interpersonal and emotional competencies are not supplementary attributes; they are primary performance drivers.

Humility deserves particular attention within the Cultural & Social Awareness domain. It is commonly misread as self-deprecation or weakness, but the research draws a sharp distinction. Humility is an accurate relational orientation, not a low self-assessment. It involves holding your

own knowledge, perspective, and status lightly; acknowledging what others bring that you do not; and remaining genuinely open to being wrong. Far from undermining effectiveness, it is the internal disposition that makes cultural competence and cross-cultural communication actually function. You cannot genuinely learn from someone whose background differs from yours if you believe your own frame of reference is already correct. Building rapport across difference requires the same foundation: people recognize quickly whether the person across from them believes they have something to learn from this interaction or not (Schein, 2013).

The organizational research on expressed humility supports this framing strongly. Owens and Hekman (2012) developed a grounded model of humble leader behaviors through 55 in-depth interviews across diverse organizational contexts, identifying that leaders who modeled teachability and acknowledged their own limitations created environments where followers felt their own developmental journeys were legitimate. Their follow-up research demonstrated that expressed humility in organizations predicts individual performance, team learning orientation, employee engagement, and retention across multiple samples (Owens, Johnson, & Mitchell, 2013). These effects are not limited to those in formal leadership roles. Coworker-level humility produces the same dynamic: when a colleague holds their own expertise lightly and genuinely acknowledges what others bring, it increases the psychological safety and performance of the people around them. Thus, humility is appropriately positioned as a Human Skill because its effects are fundamentally interpersonal and relational, not simply internal.

Why "Human": The term captures what "people skills," "social skills," and "interpersonal skills" each only partially describe. In an era where AI handles increasing cognitive and organizational tasks, the skills that make us irreplaceably human become more valuable, not less. Van Den Beuken et al. (2025) note that behavioral and socio-emotional skills are increasingly emphasized across professional contexts precisely because of their human-centric nature.

Development approach: Practice, feedback, diverse experiences, and emotional intelligence training. Human Skills develop best through repeated real-world interaction with people who are different from you.

## **Durable Skills: The Personal Operating System**

### ***Foundational qualities for long-term resilience and effectiveness***

Durable Skills are the internal capabilities that enable resilience, growth, and long-term career success. These skills determine who thrives through change, who recovers from setbacks, and who continues developing when others plateau. They are the personal operating system that

runs beneath both Professional and Human Skills, providing the foundational stability that makes everything else possible.

Consider two professionals facing the same organizational disruption. Both have strong technical backgrounds and solid professional skills. One adapts, finds new approaches, maintains composure under stress, and emerges stronger. The other resists the change, becomes overwhelmed, and struggles to recover. The difference is not intelligence or experience. The difference is Durable Skills: adaptability, resilience, stress management, and tolerance of ambiguity.

This kind of disruption is not new, and it has a name. Military strategists coined the term VUCA, short for volatility, uncertainty, complexity, and ambiguity, to describe environments where conditions shift quickly, causes and effects are hard to trace, and the right course of action is rarely obvious (Bennett & Lemoine, 2014a). Bennett and Lemoine (2014b) argue that treating these four conditions as a single undifferentiated blur is itself a mistake, since each demands a different kind of response: volatility calls for agility, uncertainty calls for information, complexity calls for restructuring, and ambiguity calls for experimentation. The business environment students are entering has only grown more volatile, uncertain, complex, and ambiguous since that argument was made, and the acceleration of AI adoption is a primary driver of that shift. Durable Skills are what make a VUCA environment navigable. Adaptability and tolerance of ambiguity are the direct individual-level response to a world that no longer offers stable rules or predictable outcomes, while resilience and stress management are what allow a person to keep functioning while those conditions persist.

Key characteristics: Transferable across roles and industries, moving with you when everything else changes. Foundational and compounding, creating conditions for developing other skills more effectively. Personally sustainable, carried independently regardless of environment. Polaková et al. (2023) connect these capabilities directly to success under Industry 5.0 conditions.

Curiosity, one of the Grow-cluster Durable Skills, merits particular attention as a developable competency. Chamorro-Premuzic (2014) provides strong theoretical grounding for curiosity quotient (CQ) as a psychological quality distinct from raw intelligence. Critically, while IQ is difficult to coach, both EQ and CQ can be cultivated through intentional practice (Chamorro-Premuzic, 2014). This finding directly supports PH&D's positioning of Curiosity as a developable Durable Skill rather than a fixed personality trait.

The belief that skills are developable — rather than fixed — is not incidental to the PH&D framework. It is foundational to it. Dweck and colleagues describe the growth mindset as the belief that human capacities are not fixed but can be developed over time, and demonstrate that this belief shapes challenge-seeking, resilience, and long-term performance outcomes (Dweck & Yeager, 2019). The growth mindset is not a feel-good concept. Decades of research confirm its power to influence motivation, engagement, and performance in real organizational settings (Murphy & Reeves, 2019).

Furthermore, this research extends beyond individual learners. Organizations themselves carry mindset cultures — communicated through norms, policies, and leadership behavior — that either enable or constrain the skill development of their people (Murphy & Reeves, 2019). A scoping review of growth mindset in human resource development contexts found that growth mindset predicts meaningful outcomes at three levels: individually, it is associated with greater work engagement, creativity, task performance, and job satisfaction; at the dyadic level, it improves supervisor-employee relationships and conflict resolution; at the organizational level, it drives citizenship behaviors and a broader culture of growth (Han & Stieha, 2020). These findings validate PH&D's premise that Durable Skills are not static traits but competencies that develop with intention and practice.

In addition, recent research has extended this logic specifically to professional skill development. A validated scale measuring beliefs about the malleability of professional skills found that employees who view their professional abilities as developable demonstrate greater career adaptability and stronger engagement in career learning — drawing directly on Savickas's Career Construction Theory as the theoretical foundation (Spurk et al., 2022). Thus, naming a skill within the PH&D framework is not merely descriptive. It creates the specific target that growth mindset research identifies as necessary for development to occur.

Reflective practice is among the most consequential developmental mechanisms in the PH&D framework, yet it is also among the most frequently undervalued in professional education. It operates across all of the skills rather than standing apart as one of them. The skill is not simply reviewing what happened. Effective reflective practice involves deliberately examining one's own performance, identifying patterns, and making intentional adjustments that carry forward into future behavior (Schon, 1983). A comprehensive review of self-awareness development in organizational contexts found that the mechanisms driving professional growth — reflection, feedback, and coaching — are learnable, trainable, and transferable across professional

settings (London et al., 2023). Self-awareness, the core product of reflective practice, directly influences behavior and shapes the kind of professional a person chooses to become.

Furthermore, informal workplace learning research confirms that reflective behaviors — including self-examination, feedback-seeking, and knowledge-sharing — are strongly linked to the metacognitive self-regulation strategies that drive continuous development (Kittel & Seufert, 2023). Workers who reflect deliberately are not just processing past experience. They are building the metacognitive infrastructure that makes future learning more efficient. This is precisely why Reflective Practice belongs in the Durable Skills Grow cluster: it is the mechanism through which all other skills compound.

Why "Durable": The term captures what competing labels require multiple terms to express. These skills are transferable, future-ready, essential, and foundational. America Succeeds research shows 8 of the top 10 most in-demand skills in 2025 are durable skills, and 76% of job postings require these competencies.

Development approach: Self-reflection, continuous learning, life experience, and deliberate practice. Durable Skills often develop through adversity and challenge rather than formal training.

### How the Three Categories Connect

The PH&D categories are interconnected dimensions of a single framework. Of the 51 skills, 49 appear in at least two categories. Remove any one category and a professional fails. Professional Skills without Human Skills produces a manager who hits milestones but loses the team. Human Skills without Professional Skills produces a well-liked colleague who cannot deliver results. Either combination without Durable Skills produces someone who succeeds in stable conditions but collapses under pressure.

| Professional provides...     | Human provides...         | Durable provides...                   |
|------------------------------|---------------------------|---------------------------------------|
| Structure and execution      | Connection and trust      | Resilience and growth                 |
| The "what" and "how" of work | The "who" and "with whom" | The "through what" and "despite what" |
| Organizational effectiveness | Relational effectiveness  | Personal effectiveness                |

This integrated design also addresses a documented leadership risk: that strong interpersonal skills, when uncoupled from professional accountability, can become a liability. Kaiser and Kaplan (2013) document that over half of executives are too soft on accountability, and that leaders with strong people skills are particularly susceptible to avoiding direct feedback and waiting too long to take corrective action. The PH&D framework counteracts this by treating human connection and professional accountability as co-equal. Neither category is optional; neither is sufficient alone (Kaiser & Kaplan, 2013).



## The 51 Skills: Domain View

Each PH&D category contains 17 primary skills organized into four thematic domains. Three domains contain four skills each, while one domain carries a fifth to reach the total of 17. The domain structure provides a secondary organizational layer that is particularly useful for targeted curriculum design and development program planning.

### Professional Skills (17)

Personal Reliability captures baseline expectations. Execution & Technology covers how work gets delivered in a modern digital workplace. Influence & Visibility addresses how individuals present themselves and operate through others. Leadership & Influence shapes direction and drives organizational outcomes.

| Personal Reliability | Execution & Technology | Influence & Visibility       | Leadership & Influence |
|----------------------|------------------------|------------------------------|------------------------|
| Accountability       | Organization           | Presentation skills          | Leadership             |
| Dependability        | Attention to detail    | Customer service orientation | Strategic thinking     |
| Work ethic           | Project management     | Delegation                   | Negotiation            |
| Time management      | Digital fluency        | Facilitation                 | Influence              |
|                      | AI-Collaboration       |                              |                        |

### Human Skills (17)

Emotional Foundation builds internal emotional capacity. Communication & Feedback governs information exchange. Collaboration & Connection covers working together and developing others. Cultural & Social Awareness addresses bridging differences and cultivating the orientation that makes genuine connection across difference possible.

Within Collaboration & Connection, Teamwork and Collaboration are treated as a single skill, Teamwork/Collaboration, rather than two separate items. Contributing reliably as part of a team and working jointly with others toward a shared goal describe the same underlying behavior at different scales, and students and early-career professionals experience them as one continuous capability rather than two distinct ones. Assertiveness, the ability to state a position,

push back when needed, and advocate for oneself or one's team without becoming aggressive, fills the resulting slot in this domain, adding a self-advocacy dimension alongside the relationship-building and developmental skills already present.

| Emotional Foundation   | Communication & Feedback  | Collaboration & Connection | Cultural & Social Awareness  |
|------------------------|---------------------------|----------------------------|------------------------------|
| Emotional intelligence | Communication             | Assertiveness              | Cultural competence          |
| Empathy                | Active listening          | Teamwork/Collaboration     | Cross-cultural communication |
| Patience               | Giving/Receiving Feedback | Interpersonal skills       | Humility                     |
| Building rapport       | Conflict management       | Mentoring/Coaching         | Consensus building           |
|                        | Human-AI collaboration    |                            |                              |

## Durable Skills (17)

Self-Understanding builds the foundation of self-knowledge that makes all other Durable Skills possible. Adaptability & Change covers flexibility and navigation through uncertainty. Cognitive Excellence covers thinking skills. Character & Drive encompasses the internal qualities fueling sustained growth.

| Self-Understanding         | Cognitive Excellence    | Character & Drive | Adaptability & Change  |
|----------------------------|-------------------------|-------------------|------------------------|
| Self-Awareness             | Critical thinking       | Integrity         | Adaptability           |
| Self-motivation/Initiative | Problem solving         | Resilience        | Change management      |
| Curiosity                  | Decision making         | Perseverance      | Tolerance of ambiguity |
| Stress management          | Ethical decision-making | Growth mindset    | Open-mindedness        |
|                            |                         | Creativity        |                        |

## The 51 Skills: Ranked with Definitions

Skills are ranked by developmental importance for business students entering their careers. Within each category, skills are grouped into three developmental clusters that align with career progression stages.

### Professional Skills

*Flex to 16: Facilitation moves to secondary*

| # | Skill                                                                              | Definition                                                                                                  | Also in |
|---|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------|
|   | <b>Prove Yourself</b><br><i>What hiring managers evaluate in the first 90 days</i> |                                                                                                             |         |
| 1 | Accountability                                                                     | Taking ownership of your work, decisions, and outcomes, both successes and failures                         | H, D    |
| 2 | Dependability                                                                      | Consistently following through on commitments and delivering what you promised, when you promised it        | H, D    |
| 3 | Work ethic                                                                         | Demonstrating consistent effort, discipline, and dedication to producing quality work                       | D       |
| 4 | Time management                                                                    | Prioritizing tasks, meeting deadlines, and allocating effort effectively across competing demands           | D       |
| 5 | Organization                                                                       | Structuring your work, information, and resources so that nothing falls through the cracks                  | D       |
| 6 | Attention to detail                                                                | Catching errors, ensuring accuracy, and maintaining quality standards in your deliverables                  | D       |
| 7 | Digital fluency                                                                    | Working comfortably and effectively with technology platforms, AI tools, and digital workplace applications | D       |
|   | <b>Stand Out</b>                                                                   |                                                                                                             |         |

|    |                                                                                                       |                                                                                                                                                                                  |      |
|----|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
|    | <b><i>Skills that differentiate you in the first year</i></b>                                         |                                                                                                                                                                                  |      |
| 8  | Presentation skills                                                                                   | Communicating ideas clearly and persuasively to an audience, whether in a meeting room or on a screen                                                                            | H, D |
| 9  | Customer service orientation                                                                          | Recognizing that every role serves someone, whether an external client or internal colleague, and prioritizing their needs                                                       | H, D |
| 10 | Leadership                                                                                            | Guiding, motivating, and influencing others toward shared goals, starting with leading yourself                                                                                  | H, D |
| 11 | Strategic thinking                                                                                    | Connecting your daily work to the bigger picture and understanding how decisions affect organizational goals                                                                     | H, D |
| 12 | AI-Collaboration<br> | Working effectively alongside AI systems as a collaborator, knowing when to leverage AI capabilities, how to prompt and evaluate AI output, and when human judgment must prevail | H, D |
|    | <b>Lead and Advance</b><br><br><b><i>Requires experience and organizational context</i></b>           |                                                                                                                                                                                  |      |
| 13 | Project management                                                                                    | Planning, coordinating, and executing work across people, timelines, and resources to achieve a defined outcome                                                                  | D    |
| 14 | Facilitation                                                                                          | Guiding group discussions and processes toward productive outcomes without dominating or directing                                                                               | H, D |
| 15 | Negotiation                                                                                           | Reaching mutually beneficial agreements by balancing interests, building rapport, and finding common ground                                                                      | H, D |
| 16 | Delegation                                                                                            | Assigning work effectively by matching tasks to people's strengths while maintaining accountability for results                                                                  | H, D |
| 17 | Influence                                                                                             | Persuading others through credibility, logic, and authentic connection rather than positional authority alone; shaping decisions and culture through earned trust                | H, D |

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## Human Skills

*Flex to 16: Mentoring/Coaching moves to secondary*

| # | Skill                                                                                               | Definition                                                                                                                                                                                            | Also in |
|---|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|   | <b>Connect</b><br><br><i>Foundational<br/>interaction skills<br/>everyone needs<br/>immediately</i> |                                                                                                                                                                                                       |         |
| 1 | Communication                                                                                       | Expressing ideas clearly and effectively through speaking and writing, while adapting your message to the audience                                                                                    | P, D    |
| 2 | Active listening                                                                                    | Fully concentrating on what someone is saying, processing their meaning, and responding thoughtfully rather than just waiting to talk                                                                 | D       |
| 3 | Teamwork/Collaboration                                                                              | Contributing reliably as part of a team and working interdependently with others toward a shared goal, combining diverse strengths and coordinating efforts within and across roles                   | P, D    |
| 4 | Interpersonal skills                                                                                | Building positive working relationships with people you didn't choose, across personalities, styles, and backgrounds                                                                                  | P, D    |
| 5 | Empathy                                                                                             | Understanding and genuinely considering other people's feelings, perspectives, and experiences before responding or deciding                                                                          | P, D    |
| 6 | Emotional intelligence                                                                              | Reading social and emotional cues accurately, understanding your own emotional patterns, and managing interactions with awareness and intention. Encompasses emotional regulation and self-awareness. | D       |
|   | <b>Deepen</b>                                                                                       |                                                                                                                                                                                                       |         |

|    |                                                                                          |                                                                                                                                                                                 |      |
|----|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
|    | <b>Relational skills that build trust and navigate complexity</b>                        |                                                                                                                                                                                 |      |
| 7  | Assertiveness                                                                            | Confidently stating your position, pushing back when needed, and advocating for yourself or your team without becoming aggressive                                               | P, D |
| 8  | Giving/Receiving feedback                                                                | Delivering constructive input that helps others improve, and accepting input about your own performance without defensiveness                                                   | P, D |
| 9  | Building rapport                                                                         | Establishing trust and genuine connection with colleagues, clients, and stakeholders through consistent, authentic interaction                                                  | P, D |
| 10 | Conflict management                                                                      | Addressing disagreements constructively by understanding root causes, facilitating dialogue, and working toward resolution. Encompasses proactive prevention and de-escalation. | P    |
| 11 | Cultural competence                                                                      | Understanding, respecting, and effectively engaging with people from backgrounds, identities, and worldviews different from your own                                            | —    |
| 12 | Patience                                                                                 | Maintaining composure and persistence when progress is slow, people are difficult, or results take longer than expected                                                         | P, D |
|    | <b>Navigate Complexity</b><br><i>Advanced dynamics requiring experience and exposure</i> |                                                                                                                                                                                 |      |
| 13 | Cross-cultural communication                                                             | Adapting your communication style, assumptions, and approach to work effectively across cultural, generational, and global differences                                          | P, D |
| 14 | Humility                                                                                 | Holding your own knowledge, perspective, and status lightly; acknowledging what others bring that you do not; remaining genuinely open to being wrong. Distinct from            | P, D |

|    |                                                                                                             |                                                                                                                                                  |      |
|----|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------|
|    |                                                                                                             | self-deprecation: humility is an accurate assessment of oneself in relation to others, not a low one                                             |      |
| 15 | Consensus building                                                                                          | Facilitating alignment among people with different perspectives by finding shared interests and building collective commitment to a path forward | P    |
| 16 | Human-AI collaboration<br> | Working effectively alongside AI systems as a partner, knowing when to leverage AI capabilities and when human judgment is essential             | P, D |
| 17 | Mentoring/Coaching                                                                                          | Helping others grow by sharing experience, asking powerful questions, and providing guidance that develops their independent capability          | P, D |

## Durable Skills

| # | Skill                                                                                                 | Definition                                                                                                                                      | Also in |
|---|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|   | <b>Survive</b><br><br><i>Core resilience for early career uncertainty</i>                             |                                                                                                                                                 |         |
| 1 | Self-Awareness<br> | Accurately perceiving your own strengths, limitations, emotions, and patterns of behavior, and understanding how your actions affect others     | H       |
| 2 | Adaptability                                                                                          | Adjusting effectively when circumstances change, whether by choice or by force. Encompasses both proactive flexibility and reactive adjustment. | P, H    |
| 3 | Critical thinking                                                                                     | Evaluating information, arguments, and assumptions objectively rather than accepting them at face value                                         | P, H    |
| 4 | Problem solving                                                                                       | Identifying the root cause of challenges and developing effective solutions, especially when there is no obvious playbook                       | P, H    |

|    |                                                                                                  |                                                                                                                                                                                                                                                                                              |      |
|----|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 5  | Self-motivation/Initiative                                                                       | Taking action without being asked, pursuing goals with internal drive, and managing your own development without waiting for direction                                                                                                                                                       | —    |
| 6  | Integrity                                                                                        | Consistently aligning your actions with your values, even when it's inconvenient or no one is watching                                                                                                                                                                                       | P, H |
| 7  | Resilience                                                                                       | Recovering from setbacks, failures, and disappointments while maintaining your ability to perform and move forward                                                                                                                                                                           | P, H |
|    | <b>Grow</b><br><i>Mindset skills that accelerate development</i>                                 |                                                                                                                                                                                                                                                                                              |      |
| 8  | Stress management                                                                                | Recognizing your stress signals and using healthy strategies to sustain performance and well-being under pressure                                                                                                                                                                            | P, H |
| 9  | Decision making                                                                                  | Making sound choices with incomplete information by weighing evidence, considering consequences, and committing to a course of action                                                                                                                                                        | P, H |
| 10 | Curiosity                                                                                        | Actively seeking to learn, asking questions, and exploring beyond what's required because understanding matters to you                                                                                                                                                                       | P, H |
| 11 | Creativity                                                                                       | Generating original ideas, approaches, or solutions by making new connections and thinking beyond established patterns                                                                                                                                                                       | H    |
| 12 | Perseverance  | Maintaining sustained effort toward long-term goals despite obstacles, plateaus, and the absence of immediate rewards. Distinct from Resilience (recovering from setbacks) in that Perseverance is about continuing forward when there is no setback, just the slow grind of meaningful work | P, H |
| 13 | Ethical decision-making                                                                          | Navigating gray areas and competing interests by applying moral reasoning to situations where the right answer isn't obvious                                                                                                                                                                 | P, H |
|    | <b>Compound</b><br><i>Skills that build value with</i>                                           |                                                                                                                                                                                                                                                                                              |      |



|    |                                                                                                     |                                                                                                                                                                               |      |
|----|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
|    | <b><i>experience and authority</i></b>                                                              |                                                                                                                                                                               |      |
| 14 | Open-mindedness                                                                                     | Willingness to consider ideas, perspectives, and possibilities that challenge your current thinking or assumptions                                                            | P, H |
| 15 | Growth mindset<br> | Believing that your abilities, intelligence, and skills can be developed through effort, learning, and persistence, rather than being fixed traits                            | P, H |
| 16 | Change management                                                                                   | Guiding yourself and others through organizational or personal transitions by communicating clearly, maintaining stability, and sustaining momentum through uncertainty       | P, H |
| 17 | Tolerance of ambiguity                                                                              | Staying productive and level-headed when situations lack clear answers, stable rules, or predictable outcomes, and making reasonable decisions despite incomplete information | P, H |

# Application to Business and Professional Development

## The Workforce Reality

The workforce data is compelling. Research from America Succeeds and Lightcast (2025) shows that 76% of all U.S. job postings require at least one durable skill, 47% require three or more, and eight of the top ten most requested skills fall into the PH&D domain rather than the technical domain. Similarly, 75% of organizations report difficulty filling roles due to soft-skill gaps (SHRM, 2024). Deloitte projects that two-thirds of all jobs by 2030 will be soft skill-intensive.

The shift is reflected in hiring behavior. Employers now prioritize problem-solving ability (89.7% of respondents), teamwork (79.7%), and written communication, while only 37% still screen candidates by GPA, down from 73.3% in 2019 (NACE, 2025). LinkedIn identified communication as the number one most sought-after skill, with adaptability exhibiting the greatest year-over-year growth (LinkedIn, 2024). According to a LinkedIn survey, 72% of U.S. executives place more value on soft skills than on AI-related technical skills (Knight, 2024).

The consequence of inadequate PH&D skill preparation is measurable. Research indicates that since early 2023, 53% of recent college graduates have been unemployed or underemployed, despite holding their degrees (Calder, 2023). The degree signals technical preparation; PH&D skills determine whether graduates can translate that preparation into productive employment.

Large-scale labor market data reinforces the long-term primacy of these competencies. Hosseinioun et al. (2025) analyzed over 1,000 occupations and 70 million job transitions from 2005 to 2019 and found that workers with strong foundational skills were more likely to earn higher wages, advance into senior roles, acquire specialized skills more rapidly, and demonstrate greater resilience to industry-level disruptions. The presence of foundational skills determined how far workers could climb the career ladder (Hosseinioun et al., 2025).

Despite this demand, a persistent gap exists. Succi and Canovi (2020) found that 86% of employers emphasize soft skills more than they did the previous decade, yet students often underestimate their importance. An analysis of graduate programs found that while creativity, leadership, and analytical thinking are commonly stressed, empathy and ethical reasoning are among the least emphasized competencies (Garcia-Chitiva & Correa, 2024).

This gap has been documented in our own research. A study of 402 human resource professionals and 403 undergraduate business students found specific, measurable disconnects in how the two groups prioritize workplace competencies (Richie, Pragman, & Bowyer, 2022). HR professionals ranked work ethic significantly higher than students did (median rank of 2 versus 3,  $p = .002$ ). Similarly, employers placed greater importance on accepting responsibility for finishing work ( $p = .000$ ), reinforcing that accountability deserves its top-ranked position in the PH&D framework.

Perhaps most telling was the finding on emotional intelligence. Despite strong research support for its role in workplace performance, both employers and students ranked emotional intelligence last among individual-level competencies, with a median rank of 4 (Richie et al., 2022). The finding reinforces this paper's argument that vague terminology fails these skills. When emotional intelligence is buried within an undifferentiated "soft skills" list, it gets deprioritized. PH&D's deliberate positioning of emotional intelligence within the Human Skills category gives it a visible home where its importance cannot be overlooked.

The perception gap documented in our own research is not a local anomaly. Cross-national research across multiple European countries found that 86% of employer respondents reported increased emphasis on soft skills over the previous decade, yet companies consistently rated these competencies as more important than students did (Succi & Canovi, 2020). The gap is not simply a matter of students underperforming. It reflects a structural misalignment between how higher education frames these competencies and how the labor market values them. When students encounter the term 'soft skills,' they often interpret it as secondary. When employers use it, they mean essential. The PH&D framework's terminology directly addresses this translation problem by using language that reflects the weight these competencies carry in professional practice.

The consequences of this misalignment are measurable. Research on career trajectories of higher education graduates found that an index of soft skills — spanning communication, teamwork, problem-solving, and adaptability — was a significant predictor of successful workforce integration and career advancement (Araújo et al., 2023). Graduates who entered the workforce with weaker soft skill profiles experienced higher rates of unemployment and underemployment regardless of their academic credentials. The degree signals technical preparation. PH&D skills determine whether graduates can translate that preparation into sustained career success.

## For Faculty and Academic Programs

The framework enables curriculum design that is both specific and flexible. Faculty can map course learning outcomes to particular PH&D domains, ensuring comprehensive coverage across a program without redundancy or gaps. A management course might target the Leadership & Influence domain within Professional Skills and the Collaboration & Connection domain within Human Skills. An ethics course naturally addresses Character & Drive within Durable Skills.

The case for precise skill language is not merely organizational. Research demonstrates that students who can identify and name specific soft skills struggle far less with the gap between academic preparation and workplace expectations. A study of UK students and employed graduates found that one of the central barriers to skill transfer was an inability to recognize and articulate soft skills explicitly — students possessed the competencies but lacked the vocabulary to apply them with intention (Tucker et al., 2025). The PH&D framework addresses this directly. When students can name Conflict Management as a distinct competency rather than filing it under the vague category of ‘being a team player,’ they develop the metacognitive hook that transforms informal practice into deliberate development.

In addition, the framework addresses a documented gap in how graduate programs prioritize their skill development efforts. Analysis of graduate curricula has shown that creativity, leadership, and analytical thinking are commonly emphasized, while empathy and ethical reasoning receive the least attention — despite being among the most valued competencies by employers (Garcia-Chitiva & Correa, 2024). The PH&D framework’s domain structure makes these gaps visible. A faculty member mapping course outcomes against PH&D domains will quickly identify whether empathy, ethical decision-making, and cultural competence are receiving the deliberate attention they require — or whether they are being assumed rather than taught.

The framework aligns with AACSB's emphasis on skills-driven learning as a critical impact factor (2025). Programs adopting PH&D language gain competitive differentiation through employer-recognized terminology while meeting accreditation expectations. Currently, 80% of faculty embed career readiness into courses (NACE, AAC&U, & SEE, 2024), and nearly 500 U.S. colleges explicitly teach career readiness competencies (NACE, 2025). Yet these programs use different labels, different skill lists, and different assessment approaches. PH&D provides a shared anchor.

Assessment becomes more targeted with the framework. Professional Skills lend themselves to portfolio projects and leadership simulations. Human Skills align with team evaluations and conflict resolution scenarios. Durable Skills connect naturally to reflective journals and innovation challenges. Integrated capstone projects can assess development across all three categories simultaneously (Bowyer, 2025). García et al. (2025) note that assessment of non-technical skills remains a central challenge across disciplines. The PH&D framework's domain structure offers a partial solution by providing specific, bounded competency areas that are easier to assess than a vague "soft skills" umbrella.

## **For Employers and Organizations**

Organizations can use the PH&D framework to revise job descriptions, performance reviews, and development programs with precise, consistent language. Instead of listing vague requirements like "strong soft skills," a hiring manager can specify that a role requires strong Communication and Active Listening (Human Skills) along with Project Management and Delegation (Professional Skills). This specificity improves both candidate assessment and employee development.

The domain structure is particularly useful for designing targeted training programs. An organization identifying communication breakdowns does not need a generic "soft skills workshop." It needs targeted development in the Communication & Feedback domain of Human Skills, specifically addressing Active Listening, Giving/Receiving Feedback, and Conflict Management.

## **For Individuals**

The framework empowers individuals to conduct a personal PH&D skills inventory, identify strengths and gaps across all three categories, and create targeted development plans. The language itself becomes a career tool. A business student who says "I've developed strong Conflict Management and Consensus Building through my team-based coursework, and I'm actively building my Strategic Thinking through case competition experience" communicates competence in a way employers can evaluate and trust.

The framework is equally applicable to adult learners and working professionals. Research with non-traditional undergraduate business students who had five or more years of workplace experience found that their perception of skill importance closely mirrored that of human

resource professionals, with no significant differences across skill categories (Richie, Pragman, & Bowyer, 2022). This convergence suggests that workplace experience itself develops an intuitive understanding of which competencies matter, even when the formal language is absent. PH&D gives these experienced learners a structured vocabulary for competencies they have been developing informally.

For adult learners balancing career, family, and educational responsibilities, the framework's specificity creates efficiency. Rather than working through a generic "soft skills" checklist, a returning professional can identify gaps between their existing Human Skills, developed through years of workplace interaction, and the Professional or Durable Skills they may need to formalize.

## The Rise of Technology and AI

The rapid advancement of artificial intelligence has not diminished the importance of PH&D skills. It has amplified it. As Ibarra and Jacobides (2025) argue, the failure to capture value from new technologies is rarely about the technology itself; it is typically about failing to align technology to organizational value propositions and about teams not changing how they work. Technology does not transform organizations. People with strong Professional, Human, and Durable Skills do. PH&D skills are not substitutes for AI capabilities; they are the essential complements that determine whether AI adoption succeeds or stalls.

The World Economic Forum reports that 39% of worker competencies are expected to change by 2030, down from a 44% estimate in 2023, and 32% of job skills changed between 2021 and 2024 alone (World Economic Forum, 2025; Lightcast, 2024). This trajectory was already visible before the generative AI revolution. Research published in 2022 noted that automation would increasingly shift the balance between technical and interpersonal skills (Richie, Pragman, & Bowyer, 2022, drawing on Harlow, 2022). Within months of publication, the release of large language models transformed the theoretical future into an immediate workplace reality, making PH&D's emphasis on distinctly human competencies urgently necessary.

Furthermore, the urgency is illustrated by the accelerating obsolescence of technical knowledge itself. The half-life of technical skills has dropped from approximately 10 years in the 1980s to just four years today, and may fall below two years in the near future (Hosseinioun et al., 2025). Specialized technical skills spike and vanish with each technological cycle, but the workers who navigate each wave successfully consistently demonstrate strong problem-solving abilities, clear communication, and the capacity to work well with teams (Hosseinioun et al., 2025). These are precisely the PH&D skills that do not expire; they compound.

## Skills AI Makes More Valuable

Human Skills emerge as the most AI-resistant category in the framework. Empathy, emotional intelligence, active listening, building rapport, and cultural competence represent capabilities that AI cannot genuinely replicate. These skills depend on authentic human connection, contextual sensitivity, and emotional presence that no algorithm can substitute (Goleman, 1995). As AI handles more routine communication and data processing, the premium on genuine human interaction increases.

Zao-Sanders (2024) identifies four human strongholds beyond AI's reach: emotion, complexity, physicality, and creativity. The first two map with particular precision onto PH&D Human and Durable Skills respectively. Skills identified as remaining valuable include persuasion, self-awareness, ethics, listening, storytelling, and sales, a list that aligns directly with PH&D competencies (Zao-Sanders, 2024). As AI advances into technical and routine cognitive domains, the human skills PH&D develops become more differentiated, not less.

The empirical evidence on this point is direct. Employees across industries — including consulting, accounting, finance, and hospitality — consistently report that the human touch and soft skills remain irreplaceable and cannot be replicated by robotics, AI, and automation (Ongkrutraksa et al., 2020). That finding did not come from educators or theorists. It came from working adults reflecting on their own experience with AI and automation in real organizations.

Similarly, a large-scale experimental study involving nine studies and 6,282 participants found that human-attributed empathic responses were consistently rated as more empathic and more supportive than identical responses attributed to AI — even when the content was the same (Rubin et al., 2025). Participants also consistently chose human interaction over AI when emotional engagement was at stake. As the researchers noted, the effects were driven specifically by responses emphasizing emotional sharing and genuine care — the precise dimensions of empathy that the PH&D Human Skills category is designed to develop. The message for business education is straightforward: empathy is not a supplement to professional preparation. It is a competitive advantage that AI cannot replicate.

In addition, a five-year analysis of job postings from 19,000 organizations found that even in technology-driven fields, employers continue to demand soft skills — particularly critical thinking, problem-solving, communication, and creativity — precisely because human skills provide the flexibility and adaptability that technology cannot substitute (Polaková et al., 2023). The labor market is not choosing between technical competence and human skills. It is requiring both, and increasingly rewarding the latter.

This pattern predates the current AI moment and is visible in long-run economic data. Deming (2017) analyzed U.S. labor-market data from 1980 to 2012 and found that jobs requiring high levels of social interaction grew by nearly 12 percentage points as a share of the workforce, while math-intensive but less social jobs, including many STEM occupations, shrank. The strongest employment and wage growth went to jobs requiring both math skill and social skill together. As routine cognitive tasks become automatable, the distinctively human capacity to



cooperate, coordinate, and adapt becomes more valuable, not less, which is precisely the combination the PH&D framework is built to develop.

The deeper point is that these competencies are not merely correlated with success; they causally produce it. In their foundational review, Heckman and Kautz (2012) demonstrated that soft skills, which they define to include personality traits, goals, and motivations, predict and causally generate outcomes in the labor market, in education, and across life domains, and that programs designed to strengthen these skills measurably improve those outcomes. Crucially, they also showed that these skills are malleable rather than fixed, which is the same developmental premise on which the PH&D framework rests. If soft skills can be built, then naming them precisely and teaching them deliberately is not a cosmetic exercise. It is the prerequisite for developing them at all.

Durable Skills provide the foundational resilience needed to adapt as AI continues evolving. Critical thinking becomes essential for questioning AI outputs and making independent judgments. Tolerance of ambiguity addresses the reality that AI cannot always provide clear answers. Ethical decision-making grows in importance as AI raises new moral complexities. Professional Skills increasingly focus on high-level strategy and human leadership rather than routine execution.

## **Skills AI Makes Less Critical**

The framework honestly acknowledges that some skills face declining relative demand. Routine organization, scheduling, basic data analysis, and standard customer service inquiries are increasingly handled by AI. In addition, the World Economic Forum indicates that even "dependability and attention to detail" are declining in relative importance as AI takes over quality control. These skills do not disappear from the framework; their nature transforms. Attention to detail shifts from catching errors manually to overseeing AI quality systems. Organization shifts from managing files to designing workflows that integrate human and AI contributions.

## **The Framework's AI Advantage**

The PH&D model is uniquely positioned for the AI era because it frames human-AI collaboration as complementary rather than competitive. Professional Skills provide strategic oversight of AI-augmented work. Human Skills provide the irreplaceable connection that makes teams, client

relationships, and organizational culture function. Durable Skills provide the adaptability required to evolve alongside rapidly changing technology. The inclusion of Human-AI Collaboration as a new primary skill reflects this positioning directly.

Polaková et al. (2023) argue that these capabilities are central to success under Industry 5.0 conditions, not supplementary to them. Even in technology-intensive fields, 61% of computer and math job postings request three or more PH&D-type skills (America Succeeds & Lightcast, 2025). PH&D skills are the primary differentiators between professionals who simply use technology and professionals who lead through it.

## Implementation Through the AKA Methodology

Identifying skills is only the first step. Developing them requires a structured approach. The AKA methodology, standing for Awareness, Knowledge, and Action, provides the developmental progression that translates the PH&D framework from a descriptive taxonomy into a practical implementation model.

The AKA methodology finds theoretical grounding in two complementary frameworks. Social Cognitive Career Theory (SCCT) explains skill development as a function of self-efficacy beliefs, outcome expectations, and goal-directed behavior (Lent, Brown, & Hackett, 1994). SCCT suggests that people develop competencies when they believe they can succeed, when they see those competencies leading to valued outcomes, and when they act on those beliefs in real professional contexts. Self-Determination Theory (SDT) adds a motivational layer, identifying autonomy, competence, and relatedness as the three psychological needs that sustain intrinsic motivation for skill development (Ryan & Deci, 2000). Together, these theories explain both why people pursue skill development (SCCT's outcome expectations map onto Awareness), what sustains their effort (SDT's intrinsic motivation drives Knowledge acquisition), and how belief converts into demonstrated capability (SCCT's self-efficacy fuels the Action stage).

The SCCT foundation also explains why PH&D's language matters for development, not just description. When students are told they need better "soft skills," there is no clear target for self-efficacy to attach to. When they are told they need to develop their Conflict Management or Strategic Thinking, they have a specific competency they can study, practice, receive feedback on, and build confidence in. Thus, specific language creates specific self-efficacy, which creates specific development. Vague language produces vague effort. The terminology is not decoration; it is infrastructure.

This claim is not merely intuitive. It is one of the most firmly established findings in the motivation literature. Across more than three decades and some 400 studies, Locke and Latham (2002) showed that specific, challenging goals produce consistently higher performance than vague exhortations to "do your best," because a vague aim gives effort nothing concrete to organize around. A diffuse instruction to improve one's soft skills is precisely the kind of do-your-best goal their research found to be weakest. By converting an undifferentiated category into 51 named, definable competencies, the PH&D framework supplies the specificity that goal-setting theory identifies as a precondition for performance gains. Naming the skill is what makes a meaningful development goal possible.

## **Awareness: Recognizing What Matters**

The Awareness stage is the "I didn't know what I didn't know" moment. Before a student can develop active listening, they need to recognize that active listening is a real competency, not just "being quiet while someone talks." Before a professional can improve their emotional intelligence, they need to understand what emotional intelligence actually involves and why it matters for their career.

In the classroom, the Awareness stage is activated through self-assessment, introduction of the PH&D framework, and exposure to real-world examples. Students begin to see that what they assumed was simply "being a team player" is actually a complex set of competencies spanning teamwork, collaboration, conflict management, and consensus building. The framework gives language to skills they have been practicing informally and reveals gaps they did not know existed.

For organizations, the Awareness stage involves introducing PH&D language into job descriptions, onboarding materials, and performance conversations. When employees can name specific skills rather than relying on vague terms like "communication needs improvement," the development process becomes immediately more focused.

## **Knowledge: Understanding How Skills Work**

The Knowledge stage moves beyond recognition into understanding. A student who is now aware that conflict management is a competency begins to learn how it works: what conflict styles exist, what approaches are effective in different situations, and what the difference is between proactive prevention and reactive resolution. They can describe the skill, recognize when they are doing it well or poorly, and articulate what effective practice looks like.

This stage aligns with the middle tiers of Bloom's Revised Taxonomy: understanding, applying, and beginning to analyze (Anderson & Krathwohl, 2001). The classroom is where Knowledge development happens most effectively through case studies, role-playing exercises, team projects with structured reflection, and exposure to frameworks like Goleman's emotional intelligence model or Kolb's experiential learning cycle (Morris, 2019). Students build conceptual understanding alongside practical skills through guided, low-stakes practice.

Metacognition, the capacity to think about one's own thinking and learning processes, is central to the Knowledge stage. Research on metacognitive awareness demonstrates that learners who

can monitor and evaluate their own performance develop skills more efficiently and transfer them more effectively to new contexts (Flavell, 1979; Schraw & Dennison, 1994). This metacognitive capacity is precisely what the PH&D framework activates when it gives students specific language for competencies they were previously practicing without conscious awareness. Naming the skill creates the metacognitive hook that accelerates development.

For organizations, the Knowledge stage is where structured development programs live. Workshops, mentoring relationships, and deliberate practice assignments help employees deepen their understanding of specific PH&D skills. The domain structure allows organizations to design targeted programs rather than generic workshops.

### **Action: Applying Skills Under Real Pressure**

The Action stage is where skills become capabilities. A professional who has Awareness of delegation and Knowledge of how delegation works must eventually delegate in real situations with real stakes. Action is the consistent application of a skill in authentic professional contexts where the outcomes matter.

This is the stage that the classroom can simulate but cannot fully replicate. Capstone projects, consulting engagements, and internships bridge the gap between Knowledge and Action by putting students in situations where their PH&D skills are tested under genuine pressure. A student who has practiced giving feedback in a classroom role-play experiences a fundamentally different challenge when giving feedback to a real client or colleague whose reaction they cannot predict.

For experienced professionals, the Action stage is ongoing and never fully complete. A senior leader continues refining their approach to change management, encountering novel situations that test their tolerance of ambiguity, and discovering new dimensions of influence as their scope of responsibility grows. The AKA cycle spirals upward throughout a career.

### **AKA Across the Career Timeline**

The AKA methodology maps to career stages in a way that reinforces the developmental clusters within each PH&D category. The top-cluster skills (Prove Yourself, Connect, Survive) are where new graduates move through the AKA cycle fastest because the feedback loop is immediate. The middle-cluster skills (Stand Out, Deepen, Grow) are where the Knowledge stage is most critical and where formal education adds the most value. The bottom-cluster skills

(Lead and Advance, Navigate Complexity, Compound) represent the Action stage at its most sophisticated, requiring positional authority and accumulated experience.

| <b>AKA Stage</b> | <b>Career Stage</b> | <b>Bloom's Alignment</b> | <b>Professional</b> | <b>Human</b>        | <b>Durable</b> |
|------------------|---------------------|--------------------------|---------------------|---------------------|----------------|
| <b>Awareness</b> | 0–6 months          | Remember, Understand     | Prove yourself      | Connect             | Survive        |
| <b>Knowledge</b> | 6 mo.–2–3 yrs       | Apply, Analyze           | Stand out           | Deepen              | Grow           |
| <b>Action</b>    | 3+ years            | Evaluate, Create         | Lead & advance      | Navigate complexity | Compound       |

## Assessment Implications

A framework is only as useful as its capacity to measure development. The PH&D structure is deliberately designed to support category-specific assessment approaches, recognizing that Professional, Human, and Durable Skills are observed and evaluated through fundamentally different evidence types. A one-size-fits-all rubric will not work here. Each category demands its own assessment logic.

Professional Skills lend themselves to performance-based assessment because their outcomes are visible and bounded. Portfolio projects, work samples, leadership simulations, and met-deadline records provide observable evidence. A rubric for Accountability, for example, might ask: Does the student take ownership of tasks without prompting? Do they follow through without reminders? Do they acknowledge mistakes without deflection? These behavioral indicators are assessable within coursework, internship evaluations, and supervisor feedback alike.

Similarly, Human Skills require interaction-based assessment because they manifest in relationships, not deliverables. Peer evaluations, 360-degree feedback instruments, conflict resolution scenario assessments, and team process reflections capture the relational quality that defines this category. Multi-source feedback is particularly important here: a student's self-assessment of their empathy or active listening may diverge significantly from how their teammates experience those skills. Triangulating self-report, peer report, and instructor observation produces a more valid picture.

Durable Skills, in turn, demand longitudinal and reflective assessment because they represent internal capacities that develop over time and across contexts. Reflective journals, growth portfolios, pre-post self-assessments, and behavioral pattern analysis over a semester or program capture whether adaptability, resilience, and curiosity are genuinely developing or merely being claimed. The AKA methodology provides a built-in developmental rubric: is the student at the Awareness level (can they name the skill?), the Knowledge level (can they describe how it works and recognize it in practice?), or the Action level (do they demonstrate it consistently under authentic pressure?)

### Example: Accountability Assessment Rubric Across AKA Stages

| AKA Stage        | Behavioral Indicators                                                                                                                                                  | Assessment Method                                                                            |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Awareness</b> | Can define accountability; recognizes examples of accountable behavior in case studies; identifies own accountability gaps through self-assessment                     | Self-assessment inventory; class discussion; written reflection                              |
| <b>Knowledge</b> | Describes strategies for maintaining accountability under pressure; analyzes accountability failures in team projects; gives specific examples from own experience     | Case analysis; role-play scenarios; structured team debrief with peer feedback               |
| <b>Action</b>    | Consistently takes ownership of tasks and outcomes without prompting; acknowledges mistakes proactively; follows through on commitments even when circumstances change | Supervisor/client feedback; internship evaluations; capstone project performance; 360 review |

This assessment logic can be replicated for any of the 51 skills by applying the same three questions: What would this skill look like at Awareness, Knowledge, and Action? What evidence would demonstrate each level? And who is best positioned to observe and evaluate that evidence? The framework does not solve every assessment challenge, but it gives faculty and employers a structured starting point where none previously existed.

## Framework Design Decisions

The current 51-skill framework evolved through systematic analysis of competing skill lists, employer research, student validation data, and iterative refinement. The following design decisions shaped the final structure and are documented here for transparency and scholarly accountability.

### A Note on Skills, Traits, and Developability

A predictable critique of any competency framework is whether items like curiosity, integrity, and resilience are truly "skills" or whether they are personality traits or dispositions. The distinction matters. Within the PH&D framework, skills are defined as developable patterns of behavior, cognition, or interaction that can be strengthened through awareness, knowledge, and deliberate action. While some skills are influenced by dispositional tendencies, the framework treats them as malleable rather than fixed. This position is supported by evidence that curiosity quotient (CQ) and emotional intelligence (EQ) can both be cultivated through intentional practice, even though raw intelligence (IQ) is more resistant to coaching (Chamorro-Premuzic, 2014; Goleman, 1995). The AKA methodology reinforces this developmental stance: every skill in the framework is structured as something that can be recognized, studied, practiced, and improved. If it cannot be developed, it does not belong in the framework.

### Framework Origins

The PH&D framework did not emerge in isolation. It evolved from an earlier three-category model developed through empirical research with 805 human resource professionals and business students (Richie, Pragman, & Bowyer, 2022). That study organized soft skills into individual, collaborative, and procedural categories and tested them through a dual-survey design comparing employer priorities with student perceptions. The research was published in the *Journal of Higher Education Theory and Practice* and represents the empirical foundation upon which PH&D was built.

The earlier model served its purpose: it demonstrated that three-category organization was both intuitive and empirically supported. Both employers and students ranked all three categories as equally important (Richie et al., 2022). But the labels revealed limitations. The "individual" category conflated personal character traits with cognitive capacities. "Collaborative" captured interpersonal skills but also included leadership and business etiquette. "Procedural" grouped



analytical skills with adaptability and responsibility. The categories worked as a first approximation but lacked precision.

The PH&D framework addresses these limitations directly. Professional Skills captures what "procedural" attempted but adds workplace-specific competencies. Human Skills refines "collaborative" by focusing on interpersonal and emotional dimensions. Durable Skills reorganizes character-driven, resilience-oriented competencies into a coherent category focused on long-term personal effectiveness. The evolution from three categories to three better categories is a story of refinement, not reinvention.

## **Skills Added**

- Human-AI Collaboration (Human primary): Working alongside AI systems as a collaborative partner. Added to reflect the emerging reality that professionals must interact effectively with both human and AI teammates.
- A note on Reflective Practice: deliberate self-examination and intentional improvement function less as a single discrete skill and more as the developmental mechanism that operates across all 51 skills. Rather than occupying its own slot in the Durable list, reflective practice is built into the AKA methodology's emphasis on deliberate progression and is most directly expressed through Self-Awareness within the Durable category. It is named here because it is the engine that accelerates growth across the framework, not because it is a separate competency to be developed in isolation.
- Humility (Human primary): Holding one's knowledge, perspective, and status lightly; remaining genuinely open to being wrong; acknowledging what others contribute that you cannot. Distinct from self-deprecation (underestimating oneself) in that humility is an accurate relational orientation, not a low self-assessment. The foundational disposition that makes Cultural competence, Cross-cultural communication, and Building rapport actually function.
- Assertiveness (Human primary): Confidently stating your position, pushing back when needed, and advocating for yourself or your team without becoming aggressive. Added to address a gap in self-advocacy, which is distinct from the receiving-oriented skills already present (active listening, empathy, patience) and increasingly important as students and early-career professionals navigate negotiation, scope-setting, and pushback on AI-generated work.

## Skills Folded

Three skills were absorbed into broader constructs: in each case, the narrower skill was a recognized component of the broader one. This consolidation follows established frameworks like Goleman's emotional intelligence model, where self-regulation is understood as a dimension of the larger construct.

| Skill Folded         | Absorbed Into                                  | Rationale                                                                                                                                                                                                                                                       |
|----------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Emotional Regulation | Emotional Intelligence                         | Component of the broader EI construct per Goleman's (1995) model                                                                                                                                                                                                |
| Flexibility          | Adaptability                                   | Proactive willingness absorbed by broader change capacity                                                                                                                                                                                                       |
| Conflict Mitigation  | Conflict Management                            | Proactive prevention absorbed by broader conflict competency                                                                                                                                                                                                    |
| Teamwork             | Collaboration (renamed Teamwork/Collaboration) | Contributing reliably within a team and working jointly across roles describe the same underlying behavior at different scales; combining them removes a near-duplicate item and reflects how students and early-career employees actually experience the skill |

## Category Movement

- Change Management moved from Durable primary to Professional primary. Leading people through organizational transitions is a workplace-specific competency that shows up in job descriptions and management evaluations.

## Responding to Documented Research Gaps

The PH&D framework directly addresses several open research questions identified in recent systematic reviews of the soft skills literature.

**How do different terminologies affect employer perceptions?** This question, identified by multiple reviewers (Touloumakos, 2020; Mohammed & Ozdamli, 2024), is central to the PH&D research agenda. Ongoing survey research with HR professionals is gathering evidence on whether specific, categorized language improves employer confidence in candidate assessment compared to the vague "soft skills" umbrella.

This question has been directly investigated. A published study comparing 402 HR professionals with 403 working adult business students found that when skills were organized into three named categories, both groups recognized the categories as equally important and largely agreed on specific skill priorities (Richie, Pragman, & Bowyer, 2022). Structured categorization produces stakeholder agreement in ways that an undifferentiated list does not. The most significant disconnects appeared around work ethic ( $p = .002$ ), working under pressure ( $p = .016$ ), and accepting responsibility ( $p = .000$ ), mapping directly onto PH&D's top-tier Professional Skills.

**What frameworks best capture core non-technical competencies across disciplines?** This gap, documented by Zahn et al. (2024) and García et al. (2025), is precisely what PH&D is designed to fill. The three-category, 12-domain structure provides a unified model applicable across business, healthcare, engineering, and education contexts while maintaining the specificity that a single umbrella term cannot offer.

**Does rebranding improve student engagement?** Classroom research with business students has generated validation data showing that PH&D's specific, non-stigmatizing language increases student willingness to engage with skill development (Bowyer, 2025). Students respond differently when told they are developing "Professional Skills" than when told they need to work on their "soft skills." The language matters.

The lack of a universally accepted taxonomy, noted persistently across the literature (Touloumakos, 2020; Marin-Zapata et al., 2021; Thornhill-Miller et al., 2023), represents both the challenge and the opportunity that PH&D addresses. The framework does not claim to end the conversation. It claims to advance it by providing a coherent, research-supported structure where one has been conspicuously absent.

## Limitations and Future Research

The PH&D framework has been developed primarily within a U.S. business education context, and several limitations warrant acknowledgment. The framework is most applicable in roles requiring sustained collaboration, judgment, and adaptability. In highly routine or tightly scripted roles, some Professional and Human Skills may carry reduced weight, though Durable Skills remain relevant across virtually all work contexts.

Furthermore, the framework does not attempt to replace technical skills, discipline-specific standards, or general cognitive ability measures. It organizes the non-technical capacities that predict performance and development across roles. Technical expertise remains essential; PH&D skills determine how effectively that expertise is applied, communicated, and sustained over a career.

Cross-cultural validation represents an important next step. While the underlying competencies are likely universal, skill expression varies across cultural contexts. What constitutes effective "conflict management" or "building rapport" may look quite different in collectivist versus individualist cultures, in high-context versus low-context communication environments, and across generational boundaries. Future research should examine how PH&D categories and developmental sequences translate across these settings.

Assessment instrument development is an active research priority. The framework's domain structure enables more targeted assessment than a vague "soft skills" umbrella, but validated psychometric instruments for measuring PH&D competencies at scale do not yet exist. Current assessment relies on behavioral indicators, rubrics, and multi-source feedback approaches that are effective in educational and organizational settings but have not undergone formal reliability and validity testing. The Bowyer (2025) classroom validation research represents an initial step, with expanded studies planned across multiple institutions and student populations.

Finally, the developmental sequencing within each category, while informed by employer research and career-stage logic, would benefit from longitudinal validation. Tracking how PH&D skills actually develop across the Awareness-Knowledge-Action progression in cohorts of students and early-career professionals would strengthen the framework's prescriptive claims. The data so far is encouraging. The work ahead is to make it definitive.

## Conclusion

The PH&D Skills Framework provides what the field has lacked: a unified, research-supported language for the competencies that drive professional success. By organizing 51 skills into three interconnected categories, 12 thematic domains, and developmental clusters aligned with career progression, the framework moves beyond description into prescription. It tells educators, employers, and individuals not just what skills matter, but when to focus on them, how to develop them, and how to assess whether development is occurring.

The framework responds directly to documented problems. Where Touloumakos (2020) identified a "galaxy" of competing terms, PH&D provides a unifying structure. Where Marin-Zapata et al. (2021) asked "do we know what we are talking about," PH&D offers a clear answer. Where Zahn et al. (2024) called for standardized frameworks to aid curriculum design and assessment, PH&D delivers a practical, implementation-ready model with category-specific assessment implications.

The framework is deliberately designed for the AI era. As artificial intelligence handles increasing routine cognitive and organizational tasks, PH&D skills become the primary differentiators. Professional Skills provide strategic oversight of AI-augmented work. Human Skills provide the authentic connection no algorithm can replicate. Durable Skills provide the adaptability required to evolve alongside rapidly changing technology. As Polaková et al. (2023) argue, these capabilities are central to success under Industry 5.0 conditions, not supplementary to them.

Combined with the AKA methodology, the framework offers a complete system: a shared language for identifying skills, a structured taxonomy for organizing them, a developmental model for building them, and an assessment logic for measuring progress. Together, they position PH&D skills not as secondary additions to technical expertise, but as the Professional, Human, and Durable capabilities that form the backbone of modern and future workforce effectiveness.

The question is no longer whether these skills matter. The question is whether we are developing them fast enough to keep pace with the change.

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