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Transforming students' beliefs: Developing employability skills and generative identities through the Integrative Knowledge Portfolio Process

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While historically the pursuit of higher education has been viewed in a positive light, the previously unquestioned assumption that a college degree leads to success in work and life has been waning in recent years (Baum, Ma, & Payea, 2013). Fueled by criticisms from employers and politicians, a growing number of reports assert that today's college graduates lack the basic skills needed to be effective in the workplace (Hart & Associates, 2013, 2015). They seem to be unprepared for the level of adaptability, persistence, and collaborative problem solving needed. Meanwhile, college students consistently struggle with not knowing how their academic knowledge connects to the rest of their lives. This disconnection not only leads some students to leave college without a degree, but it also leaves far too many college graduates unable to translate what they have learned in higher education into meaningful work and career aspirations.

Although the literature on student learning and employability makes the case that institutions must change to better prepare students for the workplace, there is scant research addressing the types of pedagogical practices that are needed to bring about this change. It is not yet clear what kind of learning experiences help students become more ready for the workplace. The purpose of the research presented here is to begin addressing this gap by exploring how the specific steps of an innovative pedagogy, the Integrative Knowledge Portfolio Process, prompted shifts in students' identity, skill development, and ability to engage with others, including employers.

Literature Review

There is a growing body of work focused on the development of college students' employability skills. Studies of employers' expectations paint a widening disconnection between academic knowledge and the reported needs of employers. While academia is largely focused on the development of knowledge and skills generated within specialized disciplines, employers are looking for more "generalist" skills - people who can communicate with and get along well with others while staying motivated through difficult tasks (Finch, Hamilton, Baldwin, & Zehner, 2013, 2014; Jackson, 2012). To address the differing priorities of employers and educators, much of the employability literature is focused on defining "employability skills" (Finch et. al, 2013; Jackson, 2012).

For example, in a recent study involving over 140 hiring managers, Jackson (2012) found "soft skills" were the most important factors in hiring decisions. This finding has been echoed in many other studies and reports. Yet while calls for these skills are getting stronger, there is little

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agreement on what the term actually means. Throughout the literature, the term is conflated with many other skill sets and characteristics, including non-academic skills, and professional skills (Ashton, 2011; Mat & Zabidi, 2010), as well as emotional intelligence and team skills (Wellman, 2010; Borghans & Weel, 2007; Chowdhury, Endres, & Lanis, 2002). The term is used to refer to everything from "grit and determination" (Muldon, 2009) to various communication skills, including writing (Ariana, 2010), verbal skills (Gray, 2010), and listening skills (Goby & Lewis, 2000).

Similarly, "problem-solving" is another essential skill set employers' value in hiring decisions (Reid & Anderson, 2012; Stiwne & Jungert, 2010). Once again, several works note the gap between the problem-solving skills employers seek and the skills taught in academic programs. While employers seem to want a general skill set, people who can solve "real-world" problems collaboratively across a variety of contexts, academia teaches individual problem-solving skills within the narrow confines of specific disciplines (Stiwne & Jungert, 2010; Wellman, 2010). Once again, this skill set is very poorly defined. It refers to everything from "thinking that is not rote or mechanical" to "higher-order cognition," "creativity," and even "leadership" and "adaptability" (Kilgour & Koslow, 2009; Halpern, 1998).

Despite the wide variability in how employability skills are defined, these studies seem quite consistent with their findings and recommendations: higher education needs to evolve to meet the current "employability crises" and to do this, they must develop more learning outcomes that address employability skills and make the development and assessment of these skills a priority in academic programs (Finch et al., 2013; Thompson, Clark, Walker, & Whyatt, 2013; Wellman, 2010).

While calls for an increased emphasis on employability skills continue to grow, other scholars are critical of this approach. They argue that focusing on skills is too simplistic an approach for the complex task of increasing students' employability (Hinchliffe & Jolly, 2011; Holmes, 2001). For instance, the "grit and determination" people need to persist through complex problems (a key capacity employers seek) is a function of one's identity and beliefs rather than a particular skill set (Moulder, 2009; Dweck, 2006; see also Von Culin, Tsukayan, & Duckworth, 2014). Moreover, since a person's identity—who they believe themselves to be—underpins all skill development, issues of identity must be prioritized in order to increase students' employability (Holmes, 2001; Hinchliffe & Jolly, 2011).

This emphasis on identity is supported by Dweck's groundbreaking research on mindsets: that a person's *beliefs* about learning (an aspect of identity) are far more important than their actual skills or level of intelligence (Dweck, 2006 ;). In completing difficult tasks, those with a "growth mindset," the belief they can always learn more, outperform those with a "fixed mindset," the belief they have a fixed amount of capacity/intelligence (Elliot & Dweck, 2005). These mindsets seem to shape how people persist through higher-order and long-term goals as well: those with a growth mindset are more likely to work with a sense of purpose and persistence toward their long-term goals than those with a fixed mindset (Dweck, 2006).

In general, the proponents of identity-based approaches to employability assert similar conclusions and recommendations: in order to increase students' employability, colleges and universities need to create many more opportunities for students to reflect on their learning, examine their beliefs, and develop their identities (Dweck, 2006). Rather than focusing on learning outcomes, these authors emphasize the importance of creating pedagogy that helps

students integrate their learning and craft identity narratives that enable their overall growth and development.

However, whether the focus is on fostering students' identities or developing skills, the employability literature shares a common challenge: While a strong case is made for change, there is a fundamental lack of theory and research on effective change strategies. For example, it is difficult to develop academic courses that foster "soft skills" without an understanding of the specific behaviors this skill set entail. Is it the way someone makes eye contact, the ease with which they speak about themselves, the ability to ask good questions, or something else altogether? Without an understanding of how these skills are defined and interpreted in employment contexts, educators lack the most basic information they need to create change.

Similar vagueness exists in the literature regarding identity and employability. While calls to create learning environments that emphasize reflection and identity development seem warranted, little research directly addresses the kinds of identity shifts students need in order to become more employable, or the types of reflective experiences that would create these shifts.

Background: The Integrative Knowledge Portfolio Process

The Integrative Knowledge Portfolio Process (IKPP) evolved from research on how students become effective leaders and change agents (Peet, 2006). This research revealed the kinds of learning experiences that facilitate transformations in students' identities (who they believe themselves to be) and agency (what they are capable of doing in the world). It also surfaced key problematic foundations that underlie most higher education curricula (Peet, 2006). Higher education largely relies on mechanistic assumptions of human development and thus operates according to the linear input/output logic of an outdated Newtonian worldview (Smith, 1998). Although empirically invalid, this worldview still serves as the unconscious foundation for how we approach teaching and learning. IKPP can be viewed as a response to problems generated from this perspective:

No room for *Integration*: Most higher education curricula are focused on the acquisition of content and skills while ignoring the fact that people need a coordinating "center," an identity and a set of beliefs, from which to interpret and apply their learning.

A limited view of *Knowledge*: Academia focuses on explicit knowledge, the formal concepts and ideas that can be easily written down and shared. However, research shows that "tacit" or "embodied" knowledge, the unconscious knowledge and learning people gain as they go through their lives, is essential for lifelong learning. Since embodied knowledge is the foundation of identity and skill development, it underpins everything we do (Polyani, 1967; Reber, 1989; Lam, 2000).

A deficit *Foundation*: Since the purpose of higher education has been to teach students what they don't know, *the entire enterprise is focused on what people lack*. We assume once students gain expertly derived (academic) knowledge, they will no longer be "deficient" and thus ready for the world. Unfortunately, this approach not only ignores the strengths, intelligence, and sources of engagement students already possess, it also impedes them from connecting to their

own innate desires to learn and grow—the very connection they need to be successful (Duckworth, 2014; Dweck, 2006).

Thus, the Integrative Knowledge Portfolio Process (IKPP) evolved as a series of steps and activities that help students learn how to identify, reflect on, and demonstrate the formal concepts and methods they are learning in their academic courses and the unconscious and invisible knowledge they are gaining from life experiences (Peet et al., 2011; 2012; 2016). By going through this process, students tap into insights, strengths, and knowledge that are hidden within their daily tasks and interactions. As such, the process reveals the unique capacities they have already developed but did not know they possessed and helps them connect their purpose and passions to their knowledge, skills, and aspirations (Peet et al., 2011; 2012).

IKPP is organized into four phases, each with a series of steps that facilitate both the development of students' integrative skills and the creation of integrative content for their on-line portfolio. A summary of these phases are as follows:

Phase A. Students identify and organize many different moments of learning across a wide range of life experiences and surface hidden patterns that reflect core skills and capacities they've already developed. This leads to the development of an initial Work Showcase for their integrative portfolio. This Work Showcase is a series Knowledge Synthesis Pages (KSPs). Each KSP demonstrates the insights, skills, and capacities a student has gained from a specific learning experience. A completed Work Showcase has 5–12 of these Knowledge Synthesis Pages that collectively illustrate what a student has learned in both academic and real-life contexts. Students organize these KSPs under several Knowledge/Skill Categories (e.g., "Effective Communication," "Research," "Strategy and Planning"). These categories reflect common skills employers seek, helping those who read students' portfolios to easily understand the broad range of knowledge and skills they've acquired.

Phase B. Students learn a series of integrative skills that enable them to "unpack" moments of learning in an in-depth way in order to find the nuanced insights and skills embedded within them. This "unpacking" leads to the creation of KSPs that illustrate what they have learned and how they will use their learning in the future.

Phase C. Students identify the unconscious motivating forces that help them be fully engaged in their learning, work, and life. This enables them to articulate the core values and strengths that underlie how they learn and the kinds of decisions and actions they engage in when they are their "best" selves.

Phase D. Students create the design and layout of their portfolios and work with their peers to give and receive high-quality feedback on each other's portfolio pages. For example:

- A Goals Page illustrates a student's ability to imagine and articulate a sense of direction or purpose for their work and life.
- A Welcome Page demonstrates a student's ability to capture a readers' interest and succinctly introduce their portfolio.
- A Résumé Page shows the student is capable of presenting their experiences in a traditional format

Research on the Integrative Knowledge Portfolio Process. Early research conducted from a wide range of institutional settings (Peet et. al, 2011) showed that IKPP helped students develop capacities for lifelong learning, including the ability to:

- Identify the internal and external conditions that help them thrive;
- Recognize the ways they learn and the insights and skills they gain as a result;
- Adapt knowledge and skills they have gained in a given place to different situations;
- Identify and engage more deeply with their sources of curiosity and motivation;
- Recognize insights and patterns across seemingly disconnected information;
- Demonstrate the knowledge they have gained across different experiences; and,
- Understand how to ask questions in order to reveal the hidden assumptions, strengths, and core capacities that exist within others.

More recently, data from a pilot double-blind study comparing IKPP and non-IKPP students' responses to employment interviews (neither students nor interviewers knew the purpose of the study) show IKPP students' responses differed from those of non-IKPP students in three important ways (Peet, 2016):[2]

A. Confidence and Engagement: While non-IKPP students often needed additional clarification regarding the best way to answer an interview question, IKPP students did not. When interviewers asked, "*Tell me about the last time you were curious about something,"* non-IKPP students would typically hesitate before asking, "*Do you mean in relation to school…or something else?"* By comparison, IKPP students would simply pause and then respond: *"Hmmm…. the other day when I was at the airport, I started thinking about how the jet fuel affects the air quality…I started looking up stuff on my phone…"*

B. Clarity and Competence: IKPP students' responses were much clearer. For example, in response to the question, "*How do you define success?"* a typical non-IKPP response, "*Being the best in whatever I do,"* was quite vague, whereas a typical IKPP response was more detailed and included examples: "*When I do something that challenges me and somehow benefits others, like peer mentoring. I learned to teach while helping other students…"* This level of specificity made IKPP students seem much more competent than their non-IKPP peers.

C. Consideration of Others: IKPP students' responses were far more relational than those of non-IKPP students. For instance, as seen above in the previous definitions of success, IKPP students explicitly mentioned other people, whereas non-IKPP students did not. This was a pattern throughout the data: IKPP students gave examples that referred to other people three times more often than non-IKPP students.

While analysis of this data is still underway, these early findings indicate that IKPP may help students develop skills and identities that foster employability, such as self-awareness, communication skills and an understanding of what motivates and inspires them. However, while this data may illustrate changes in students, it does not reveal *how* students' developed and changed by going through IKPP. The process of change is still a mystery. By analyzing students' in-depth reflections and feedback collected during and after key steps of IKPP, the data presented here are intended to open this black box.

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[2] This pilot study took place at a large Research I Institution and included 20 3rd and 4th-year undergraduates who were peer educators in the natural sciences and had a 3.6 GPA or higher (10 students in each group). These results emerged from an initial analysis of students' responses. A more in-depth analysis will be forthcoming in additional publications.

Summary of Research Methods

Data for this study were collected over three years from 314 undergraduate and graduate students participating in various Integrated Knowledge Portfolio Process workshops and courses within a large public research university. Students' participation was entirely voluntary.

Participants.

Self-reported demographic information on student participants:

Gender. 54% men, 46% women.
Age. 19–56 years old; average age was 29.
Race, Ethnicity, and Nationality. 54% white, 18% unidentified, 10% Asian or Asian-American, 9% Arab or Arab-American, 7% African-American, and 4% Latino or Hispanic
Degree and Discipline. (may be some overlap due to dual-degree students)
49% master's-level students from Business or Engineering
22% undergraduates majoring in the Natural Sciences
18% undergraduates majoring in the Liberal Arts
11% master's-level students in Social Work, Education, or Public Health.
Employment.
46 % part-time
32% full-time
22% unknown

Data Collection and Analysis.

A-ha moments. At the end of each session, students were given a few minutes to write 1–3 "a-ha" moments from the day, including why each realization occurred and how they intend to apply the insight(s) gained outside of the classroom. To support privacy, students were not required to put their names on these documents before turning them in. Although more than 1,200 of these reflections have been collected, due to resource constraints, this study used a random sampling of 275.

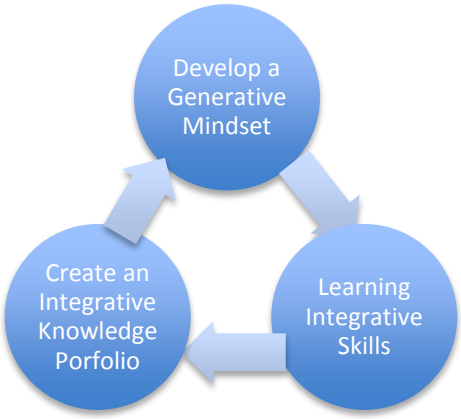
Weekly Reflections. 110 students did IKPP as part of a graduate-level managerial and executive coaching course. In addition to recording the "a-ha" moments, they wrote three in-depth reflection essays about their learning. One third of these reflections were analyzed for this paper.

The text of these documents and reflections were analyzed using a grounded theory approach (Guba & Lincoln, 1994). The first round sorted the data according to steps of IKPP. The second round identified themes within each step, achieving over 90% inter-rater reliability with the help of a research assistant. Finally, during the third round, the themes were applied to the remaining data sample.

Students' Responses to the Integrative Knowledge Portfolio Process

Before describing students' responses in detail, it seems important to first summarize the conceptual foundation given to them at the beginning of most IKPP courses and seminars.

Diagram 1: The Underlying Elements of IKPP



As demonstrated in the above diagram, the conceptual basis of IKPP is a Generative Mindset**,** which is a way to both perceive and facilitate the inherent strengths, resources, and capacities people possess. The term "generative" is used because this way of seeing is inherently resource-generating: the more students see themselves and others through a generative lens, the more they will be able to unleash critical resources typically hidden from view. This mindset is based on the following principles:

Learning is a Natural and Lifelong Process. As people move through life, adapting to new ideas, jobs, technologies, relationships, etc., *learning is one of the most natural things we do*: it includes the skills we develop when we accommodate a team member's preferences, the "a-ha" moment we experience when working through a problem, and the subtle aliveness or joy we feel when we follow our curiosity. Yet since much of this learning takes place unconsciously, it is difficult to identify and articulate.

There are Different Ways of Knowing. Although our education system focuses on formal knowledge, there are other kinds of knowing that are critical to success. "Embodied knowledge" refers to the capacities people develop by responding to life and as a result developing unconscious insights, intuitions, and capacities. Because this knowledge is hidden (it literally "lives" in our bodies below our conscious awareness), most of us never recognize and consciously use it (Polyani, 1967; Reber, 1989; Lam, 2000).

People are Inherently Resilient, Coherent and Strong. Embodied knowledge serves as a source of coherence within us, functioning as an organizational "force" at the center of our being. Some people feel this force when they follow their sense of purpose or curiosity, or when they engage in creative pursuits, physical movement, or service to others. Regardless of how it arises, this force is expressed in many forms: feelings of connection, moments of clarity, a willingness to persevere, a sense of aliveness or flow are just some of the ways it is experienced (Csikszentmihalyi, 2014).

Each Learning Experience Reflects our Inherent Coherence. This inner coherence unconsciously shapes our learning experiences; it does not require our permission or awareness in order to exist. By learning how to recognize and "unpack" moments when we have overcome something challenging or engaged deeply, we can retrieve the hidden know-how embedded within those moments. This unpacking reveals patterns of purposefulness, strength, and intelligence within each of our experiences.

We Need Others to Help us Uncover our Hidden Resources. Since our embodied knowledge exists well outside of our conscious awareness, self-reflection alone cannot reveal it (we can only reflect on something if it is available to us). Thus, in order to discover our hidden resources, we need to engage in a process of generative inquiry and dialogue with others.

Students learn to apply these principles through the steps and assignments of IKPP. By doing so, they develop four essential Integrative Skills:
1) asking embodied questions;
2) generative listening;
3) identifying hidden patterns of strength, purpose, and resiliency; and
4) providing vital feedback, feedback that reflects people's unique sources of strength and aliveness.
Each of these skills is described in more detail below in the context of students' responses and the steps/exercises in which it is learned.

Phase A. Identifying Learning and Surfacing Hidden Strengths. Students are introduced to their own hidden sources of coherence and realize that embodied knowledge comes in many forms: it can be anything from a subtle "a-ha" moment, to a "sense" that something is wrong (or right), to the flash of insight that helps them get unstuck from a challenging situation, or many other things. The first exercise of this phase, Identifying Key Learning Experiences, prompts students to create an inventory of memorable learning experiences and then identify knowledge and skills hidden within those experiences:

Step 1. Students follow prompts that help them identify 12–15 specific moments of learning from very different areas of life (academic, social, family, work, etc.).

Step 2. For each moment, students write a few words describing why it was meaningful.

Step 3. Students are given a comprehensive list of knowledge/skill categories typically used by employers (e.g., "strategy and planning," "communication," "analytical thinking") and asked to identify 2–3 categories that describe what they learned *for each learning experience*. If they cannot identify 2–3 categories for each experience, they are instructed to create new categories as needed.

Step 4. Students reflect on the knowledge/skill categories they identified and identify the patterns/themes that emerged across learning experiences from different areas of life.

Students' reflections on this exercise reveal the following:
<u>The importance of connecting personal experiences with formal skill language</u>

> *Once I wrote all those experiences down, I saw many of them were times when I learned to critically think… Professors are always saying that we need to do that but until today, I don't think I knew what that actually meant… I did Strengths Finder last week at* [name of campus career center] *and it spit out 5 words that describe what I'm good at…They didn't' mean anything…just random words. This exercise was the opposite. The strengths and skills actually mean something to me because they came from my experience.*

<u>Making sense of hidden learning can lead to shifts in their identity</u>

> *My mom has been bugging me lately to look for a job before I graduate but I just freeze…I don't know what I should look for... I've done lots of stuff here, but no idea what it means… It helped to put a bunch of random stuff down and then find the skills that went with them… I just found parts of me I never saw before...*
>
> *If I didn't have something like this, I would have no way to know what I've done or that I've learned things I can actually use in the world. I feel like I can write a résumé now that isn't complete crap…*

Phase B. Using Integrative Inquiry to Unpack Hidden Knowledge and Learning. The goal of this phase is for students to learn a series of integrative skills that they will continue to use in subsequent phases and apply in other areas of their life.

Step 1. Students learn the difference between disembodied and embodied questions. Whereas the former prompts a person to describe experiences in rather vague ways, the latter prompts them to reveal specific details and the unconscious assumptions, values, etc., embedded within the experience.

Students begin to experience the difference between these two kinds of questions through a partner exercise that engages them in two brief conversations: the first is prompted by a disembodied question, and the second is prompted by an embodied question. After each conversation, students are asked to reflect and write a few words about the quality of their own

response, their general impression of their partner, and what they learned about their partner through the conversation.

Conversation 1. "What is your definition of "good leadership"? Think of your answer and then spend 1–2 minutes each sharing your definition with your partner." After students share their definitions, they are given 1 minute to reflect on the conversation.

Conversation 2. "What is a time when you personally experienced "good leadership"? Describe a moment when you either witnessed a good leader in action or when you were a good leader. Please think of a specific experience, and then share it with your partner for 1–2 minutes." After they share their experiences, they again have a minute to reflect on their responses.

When facilitating these two conversations, it is easy to get students to stop talking after the first conversation, but much more difficult to get them to stop after the second. They have to be asked at least three or four times to stop talking, which means the second conversation often lasts 2–3 times longer than the first. When they finally stop and compare the two conversations, they quickly see they were far more engaged in the latter. The table below illustrates how students typically experience themselves and their partners in these two conversations:

	Disembodied (explicit) question	**Embodied (tacit) question**
	What is your definition of good leadership?	*What was a time when you experienced "good leadership?*
What do you think of your own response?	*Boring. It was hard to come up with a definition. I worried about the right answer. It felt weird…*	*Since it was my own experience, it was easy to get at it. I was mentally and emotionally "on" when talking…*
What came to you as you listened to your partner talk?	*The image that came to me as I listened was that she was spitting out someone else's words…*	*I immediately saw that she would be a great entrepreneur…When she's passionate, she makes it happen….*
What did you learn about your partner?	*Not much. Her definition was good, it just didn't say anything about her.*	*She respects people who stand up for others and aren't afraid to take risks. She wants to be that kind of person too*
Can you recall partner's response?	*I don't really remember it, something about inspiring others*	*Yes, all of it. I'll don't think I'll ever forget it…the more she talked, the more I got into it too…*
Congruence between 1st and 2nd response	*My definition didn't reflect my experience and vice-versa.*	*If I compare my* definition *with my* experience, *I sound like two different people.*

Students' reflections on this step evolve over time. In the beginning, most of their epiphanies are related to gaps in how they communicate:

Recognizing the difference between surface and substantive responses

> *When I talk in a disembodied way, it's usually because I don't really care what I'm saying or I'm just saying stuff I think others want to hear …I'm learning to hear what I sound like and it's not pretty…*
>
> *I noticed that when other people talk in disembodied ways, I tune out. I guess that's because they are either not saying anything, or because I don't know what they are really talking about…*

As the semester progresses, and they learn to apply this skill more readily, their insights evolve accordingly:

Prompting others to engage more deeply

> *We were talking about using data analytics to solve strategic problems in class and it was all abstract and academic. So I asked the professor to give us a real-life example and as soon as she started telling the story, everything changed…everyone was much more engaged. It wasn't just me…*

Seeking clarity with employers and in other work-related contexts

> *I'm in charge of a software development team that's been stuck for weeks. At Monday's meeting, I noticed we were all talking past each other, so at Wednesday's meeting, I set up a process: instead of talking about "the problem" right away, I asked embodied questions about similar problems they faced before and how they figured them out. Everyone shared at least one example … By the time we turned to the "real" problem, they had several good ideas and by Friday, they had figured out the problem…*
>
> *These questions really helped during the recruitment process. The recruiters were all saying how "collaborative" and "supportive" their companies are. After hearing that many times, I started asking embodied questions, "What does collaboration look like during meetings?" "Can you give me an example in the last week when you felt supported?" I could tell they weren't used to that and I am pretty sure that is why I have been invited back for second interviews. That is always a good sign.*

Over time, students notice that disembodied questions generally do not require people to pay attention to their personal experiences, and are therefore likely to generate responses that reflect only surface-level cognition. They begin to see how disembodied responses lack the meaningful details, aliveness, and emotional intelligence that are indicative of a person's true knowledge. Conversely, because embodied questions are more likely to engage directly with a

person's *own body of knowledge*, they are more likely to help people connect their thoughts, feelings, intuitions, and unconscious assumptions in a single integrated response.

Step 2. Identifying Patterns and Connecting Learning Experiences. This step requires that students learn how to distinguish among three different levels of listening, and to recognize how each level facilitates different, and typically deeper, types of knowledge and information. The three levels include:

Problem-solving Mode. Listening with a particular goal, outcome, or need in mind. This mode often facilitates surface-level information by prompting people to report just "facts"; the contextual details regarding how the facts emerged are stripped away, as are intuitions, insights, and other types of "soft" data derived from personal experience.

Empathic Mode. Listening in order to personally relate to and/or validate the other person's experiences. This mode prompts people to share challenges they face and a range of feelings they may be having. This mode often reveals critical information about how or why a problem or issue evolved and how it is affecting people.

Generative Mode. Listening with an intention to reveal the hidden coherence, strength and intelligence within a person or group. This mode emphasizes curiosity more than personal relatedness. This curiosity, along with embodied questions, not only prompts people to reveal details about their challenges and frustrations, it also uncovers their hidden agency—the ways in which their assumptions, insights, decisions, actions, values, etc. unconsciously operate to help them solve problems effectively.

While the difference between problem-solving and empathic modes is usually evident to students, the difference between empathic and generative modes requires further explanation. In empathic mode, the listener personally relates to the speaker's difficulty and then responds with some form of emotional validation and/or support. In generative mode, the listener conveys some empathy, but then seeks to uncover the hidden assumptions and strengths embedded within the speaker's experience by trying to unpack some of the common words or phrases the speaker is using. This "unpacking" prompts the speaker to articulate the assumptions hidden within their words, and thus reveals nuances and details they would not otherwise be able to articulate. The quotes below demonstrate the kinds of responses that emerge from empathic and generative listening:

Speaker:

> *I'm really struggling to get our team to work more collaboratively… every time I try something to move us in that direction, it just fails…*

An empathic listening response**:**

> *Wow…that sounds really frustrating…Nothing is worse than trying really hard to fix something and not getting anywhere…*

Speaker:

> *I'm really struggling to get our team to work more collaboratively… every time I try something to move us in that direction, it just fails…*

A generative listening response**:**

> *That sounds hard… So, when you say you want your team to be more collaborative, I realize that I'm not really sure I understand what you mean by that. Would you mind giving me an example of what "collaborative" looks like to you in that situation?*

Although the generative listener knows what "collaborative" means, they do not know *how the speaker is interpreting this word in this context.* It could mean anything from having equal time to talk during meetings, to only making decisions via consensus, or to something else altogether. In order to truly know what the speaker is referring to, the listener must prompt for one or more behaviorally specific examples.

Through additional in-class exercises, students practice generative listening and observe the questions, insights, and information that emerge as a result. For homework, they practice "in the wild" (in their own lives) and make additional observations.

Their reflections illustrate how these exercises influence both their identities and their interactions with others:

<u>Disruptions to existing identities</u>

> *Since I like to think of myself as a nice guy, I assumed I was a good listener … I never knew how much I didn't hear. As soon as someone shares a problem, I immediately jump to fixit mode…I get so excited to share <u>MY</u> solution that it doesn't occur to me that I might not understand what they really need…*

> *I thought I was a good friend, a good sister … because I am SUCH an empathic person, but I'm not…This is how I've been listening: once I relate to someone, I immediately assume I actually know what they are talking about and then respond…but I don't really know because I never bothered to ask them a question...*

<u>Shifts in how they connect with and make sense of others</u>

> *When I listened differently this week and asked better questions, I learned that what I often assumed to be true about people was mostly wrong. It was just stuff I made up about them based on my own experience…*

> *The first day I tried this with my wife, it didn't work… I tried too hard…When she came home the next day and was really upset, I tried again...I didn't try to*

> *solve her problem, I just listened, and eventually asked questions about how she dealt with situations like this in the past. Twenty minutes later, she was in a totally different place… I could see her strengths, and she's stronger than I thought…*

Steps 3 and 4. Students help their classmates surface hidden "core capacities," the patterns of unconscious skills and strengths a person brings to different contexts. This requires that they learn and practice two more integrative skills: identifying patterns of strength, purpose and resiliency, and giving integrative feedback.

During the key exercise of this phase, students get into groups of three and receive a series of embodied prompts designed to help them unpack three moments when they worked through a challenge and reached a satisfactory result. They take turns in different roles: a speaker tells three stories, an interviewer prompts the speaker to share in an embodied way, and a listener/note-taker writes down patterns of strength, purposefulness, and resiliency heard from the speaker's stories and then sends those notes to the interviewer. The most important aspect of this exercise is "co-hearing"— the fact that the interviewer and note-taker often hear the same things from the speaker's stories that were never explicitly spoken. As homework, students take the notes the received from this exercise and translate them into three Knowledge Snapshot Pages for their portfolio. Each page reflects insights gained and lessons learned from a single experience[3]. Students' responses to this exercise include:

<u>Surprise at discovering what they had already learned</u>

> *I couldn't even remember the courses I had last semester, let alone what I learned. But they helped me identify 5 or 6 things I learned from just last semester alone. I know that doesn't sound like much but I didn't know I had learned anything before that…*

<u>Epistemological shifts and disruptions</u>

> *The most surprising thing was being able to hear his strengths... He never actually said, "I think ____ are my core strengths," I just heard them…they came to me as he talked. The fact that someone else heard them too made it easier for me to trust myself… I'm not sure I could do this on my own…I've never done anything like this…*
>
> *I'm a little freaked out by this. I just told two people I barely know three little stories about all the frustrations I had last semester and then they told me all these things about myself I didn't know – strengths and skills I have…They seem to know more about me than people who have known me my whole life. What just happened?*

As students repeat this exercise to create additional KSPs and use these skills "in the wild," their reflections become less about themselves, and more about others:

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[3] The first few Knowledge Snapshot pages require detailed feedback from the instructor/facilitator. Once the students learn how to do this kind of reflective writing well, however, they usually benefit well from peer-to-peer feedback.

> *A friend of mine was trying to decide between two jobs that would take her in very different directions so I asked her to tell me 3 stories about times when she felt really engaged at work. By the time she finished, she knew the answer. I would have never known how to do that before, but it is starting to feel natural…*

Phase C. Identifying Sources of Passion, Engagement, and Purpose. Students engage in an exercise to help them uncover each other's hidden sources of purpose and motivation. The goal of this exercise is for students to discover the kinds of conditions, both internally and externally, that lead to thriving, and thereby to their "best self."

Step 1. Students are given one minute to write down on 3 x 5 cards as much as they can about their values—what is important to them, and why. They are then asked to set this card aside until after class.

Step 2. In groups of three, students are given a set of embodied questions designed to uncover their unconscious sources of motivation, passion, and engagement. As in previous exercises, they take turns in the roles of speaker, interviewer, and listener, identifying themes, giving each other detailed feedback, and then using the feedback to write a compelling Philosophy Statement.

Step 3. They are asked to compare their feedback from their peers to what they wrote on their 3 x 5 card at the beginning of class

Their reflections show shifts in the way they think about themselves, in the process of "knowing," and in the way they perceive others.

Awareness of oneself

> *I learned not just what I need to do to stay motivated in school, but what I need to stay motivated IN LIFE. When I struggle to trust people, I immediately pull away…but when I trust them, I'm a totally different person. …My take-away is this: I need to pay attention to my level of trust at all times and talk to people when it feels shaky. Before today, I had no idea I needed that…*

Epistemological shifts

> *I struggle with this process. My engineering brain just keeps saying, "This is total bullshit!" But that voice went away today, maybe because I was too busy listening…My "a-ha" moment was that peoples' experiences are just data, a different type of data than what I'm used to seeing, but data that I need so I can be at my best and help other people do the same...*

Connections to others

> *It was nice that my team said nice things about me, but it was even better to learn about the silent forces that guide them. After we went through all our stories and feedback, we just sat there in silence for a while…It was incredible.*
>
> *I think the best part of this exercise is how deeply we got to know each other …I feel like we'll know each other for the rest of our lives*

Phase D. Putting it all Together: Completing an Integrative Knowledge Portfolio.

Step 1. Students integrate feedback received from others regarding their Philosophy Statements and Knowledge Snapshot Pages. Since these are the most substantive pages of their portfolio (worth 2/3 of their grade), once those pages are created, their other 3 pages—Welcome, Goals, and Résumé—emerge quite easily.

Step 2. As a part of this last phase, students are required to share their completed portfolios with others and to use the skills they've learned in other contexts.

Developing a Different Compass

> *I always thought I was getting a PhD in biochemistry, but through this process I discovered a whole other part of me – the part that loves working with kids…That lead me to apply to Northwestern for pediatrics…I start in the fall*

Learning to Trust

> *I didn't trust the things I enjoyed before. I would only let myself do stuff that was hard.… Now I see if I can let myself feel my curiosity and then follow it, a whole new world opens up to me… It is going to take me a long time to get used to this… I used to spend hours preparing for an interview. Now, I just sit down, read my portfolio, and think of a-ha moments…When I got to the interview my whole portfolio was printed out…When they asked me about failures, I talked about a recent experience, not just something in my portfolio… That impressed them. I think that's why they offered me the job…*

Discussion

The employability literature appears to be split between the need to either develop students' employability skills, or develop their identities. However, the results presented here show that these two priorities are inextricably linked: the development of one's identity is essential to the acquisition of skills and vice versa. As students connected insights and skills embedded within their informal learning experiences to the formal knowledge/skill language used by employers, many gained a sense of confidence and legitimacy that transformed their

beliefs about themselves, *"It's like waking up one day and realizing that I could do all these things I didn't know I could do."* Similarly, the process of recognizing hidden sources of purpose and motivation also changed their sense of who they were as people and what they were capable of doing, "*I discovered this whole other me I didn't know I had before…I can do so much more than I ever thought…"*

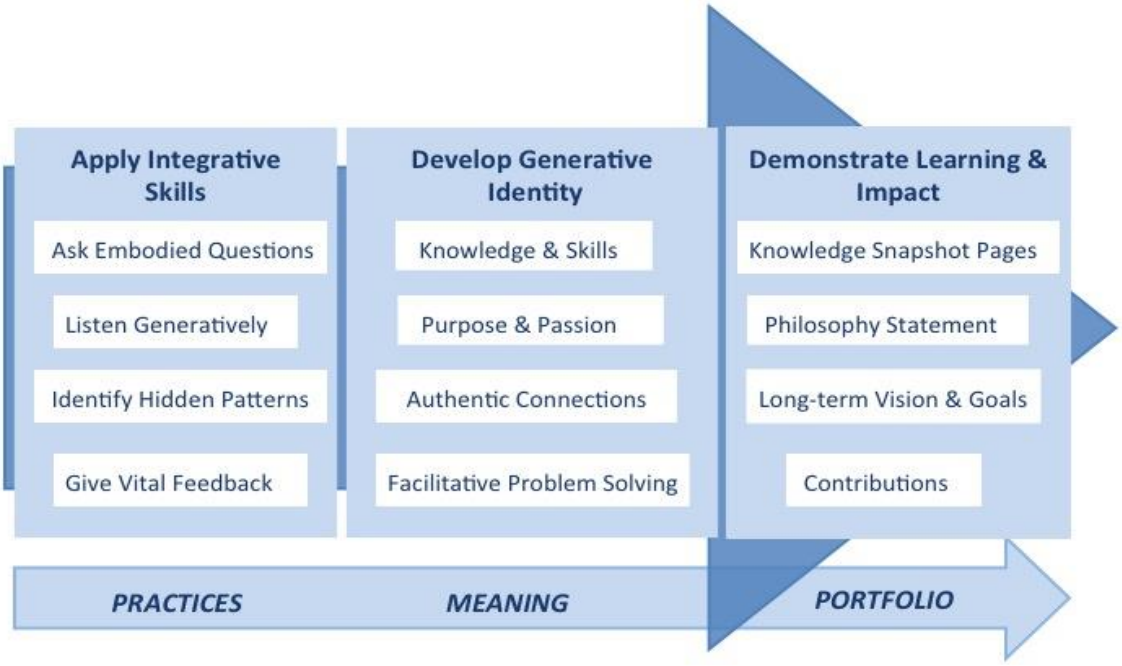
The results presented here also showed that IKPP was sometimes disruptive to students' existing identities. For example, in learning how to listen generatively, many students were surprised to realize their listening skills were not as good as they had previously thought. This realization not only altered their understanding of their skills, for some, it also challenged their identities, *"I always thought I was a good friend…but I was wrong."* Learning to listen generatively gave them a fundamentally different vantage point from which to see themselves and thereby assess their identities, actions and skills more closely.

The results also showed how concurrent shifts in students' skills and identities fundamentally changed how they interacted with others, including friends, family, colleagues and potential employers. With employers, it seems the anxiety, confusion, and hesitancy many experienced before IKPP was replaced by an abiding trust in themselves and a sense they could be honest and authentic in their interactions with others, including employers. "*I feel real now, like I don't have to BS…I just show up to the interview and answer the questions honestly.."*

Finally, one of the most surprising results was the degree to which IKPP altered how students approached problem-solving and communicating with others. A basic tenet of a Generative Mindset is that addressing challenges in one's life automatically leads to the development of hidden strengths and capacities. Thus, when someone is facing a problem, it is helpful to connect them to the resources they've already developed through addressing their previous problems. By going through IKPP, students became much more facilitative (as opposed to didactic) in how they responded to problems. Nearly all of them learned to respond differently when speaking to other individuals: rather than offering their own solutions, they learned to ask embodied questions instead. And some students even learned to apply this skill set in the context of complex group and organizational dynamics, "*During the meeting, I had everyone share an example of how they had solved similar problems previously."*

The diagram below, *Transforming Skills, Identities and Employability Through IKPP* depicts these findings graphically. It shows how IKPP enhanced students' overall employability in three ways: through the application of Integrative Skills, through the development of a Generative Identity and through the Demonstration of learning and impact. Although previous research showed the importance of integrative skills and demonstrating learning, it did not show how these lead to the **Development of a Generative Identity.** The transformation of students' identities not only refers to what they believe is possible for themselves, it also includes how they communicate and connect with others, including their ability to unleash hidden strengths, and to engage in facilitative problem solving with others. A generative identity enables students to bring their embodied knowledge to their life outside of the classroom, bringing out embodied skills and abilities in their friends, families, and coworkers.

Transforming Skills, Identities and Employability through IKPP



Conclusion

This paper reflects a first step toward bridging the disconnection between employers' expectations and an integrative approach to preparing students for their post-graduate lives. Current employability literature is largely focused on either the development of students' employability skills, or the development of their identities; the presence of one often excludes the other. The research here demonstrated how the Integrative Knowledge Portfolio methodology simultaneously enhanced students' identities and their employability skills, including their ability to interact with and communicate well with others. The results show that identity, skill development, and the capacity to forge meaningful connections with others are inextricably linked. Attempting to address one of these domains without addressing the other two not only dilutes efforts to increase students' employability, it also fosters fragmented learning. An integrative approach, by its very nature, facilitates the connection among students' understanding themselves, their capacity to reflect on their learning, and the development of skills employers seek.

In addition to insights regarding identity and skills, the results presented here revealed several other issues and topics that seem critical to understanding employability: the role embodied knowledge plays in peoples' employment and career success, the ways a generative mindset shapes learning and communication, and the ways in which methods such as IKPP can transform students' agency, identities, and aspirations over time. Although these (and many other) topics are beyond the scope of this initial exploration, they will hopefully be addressed in future research.

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