Creative Know How Competencies – A Student's Step to Success in the Corporate World

Anto Juliet Mary M

Assistant Professor, Mount Carmel College, Bengaluru, Karnataka 560052

anto.juliet.mary@mccblr.edu.in

Abstract

The need for a well-defined skill set in today's evolving world is on the rise. Colleges, schools, and other training camps play an important role in the development of skills to make them corporate ready and meet the emerging needs of business, industry, and educational institutions. The focus is on the result and usually ignores the process of making the student corporate ready. To be able to assess the process, one needs to know more about the abilities, skills, and strategies. What behavior is to be promoted and what are the signs of progression to be identified? (Björklund 2008). The Curriculum to suit the requirement that is contemporary in content and current in context is the need of the hour. Skills imparted to the undergraduate students need to sharpen their instincts, intuition, imagination, inquisitiveness, initiative, and intellect leading to newer insights. These Skills sets and competencies possessed help them to bridge the gap between foresight and hindsight which in turn improvises efficiency and effectiveness in the work environment. Traditional pedagogy employed involves case studies, role plays, group assignments and analyses, applied learning projects interspersed with lecture sessions of theory and practices. These traditional methodologies are tested and widely used however there is a shortfall of programs that are collaborative inducing cooperative learning, cocreated and co working in a symbiotic manner that leverages collective wisdom. To add to this the Skill ecosystem in the institutional and educational setup is in the transition phase, hence we must take incremental steps.

INTRODUCTION OF CREATIVE KNOW HOW SKILLS

The need for a well-defined skill set in today's evolving world is on the rise. Colleges, schools, and other training camps play an important role in the development of skills to make them corporate ready and meet the emerging needs of business, industry, and educational institutions. The focus is on the result and usually ignores the process of making the student corporate ready. To be able to assess the process, one needs to know more about the abilities, skills, and strategies. What behavior is to be promoted and what are the signs of progression to be identified? (Björklund 2008). The Curriculum to suit the requirement that is contemporary in content and current in context is the need of the hour. Skills imparted to the undergraduate students need to sharpen their instincts, intuition, imagination, inquisitiveness, initiative, and intellect leading to newer insights. These Skills sets and competencies possessed help them to bridge the gap between foresight and hindsight which in turn improvises efficiency and effectiveness in the work environment. Traditional pedagogy employed involves case studies, role plays, group assignments and analyses, applied learning projects interspersed with lecture sessions of theory and practices. These traditional methodologies are tested and widely used however there is a shortfall of programs that are collaborative inducing cooperative learning, cocreated and co working in a symbiotic manner that leverages collective wisdom. To add to this the Skill ecosystem in the institutional and educational setup is in the transition phase, hence we must take incremental steps.

To build the skill ecosystem at the premier institute in Bengaluru, the concept of creative know-how skills was introduced. Creative know-how skills are the skills and abilities to analyze

complex problems and construct solutions in real-life situations. Creative knows how competencies cover a wide range of skills (communication and technical) to deal with situations effectively. These skills are extremely useful for dealing with both business and real-life situations. To foster the skills ecosystem it was understood that fundamentally all the students need to be taken on the same page and pace through the sensitization phase. Workshops, lectures on creative know-how skills were organized by the students and faculty with some top industries, educational institutions. Some of the skill development institutions included Talk Temple, Combat 360, Unbox and National Skill Development Corporation, and so on.

INCEPTION OF "THANK GOD ITS FRIDAY "-TGIF AS A BEHAVIORAL EXPERIMENT

As an outcome of the sensitization effort, the Department of Business Studies under the guidance of the Faculty coordinator initiated a behavioral experiment called **Thank God for Its Friday**.

The validity of the learning outcomes is tested by the information-gathering behavioral experiments. This Behavioral Experiment is being implemented at the Department of Business Studies of a premier institution of Bangalore in partnership with the Industry involving the student and researchers. This experiment is designed to address the employability skill gap as it will promote the involvement of the students that enables them to build up the practical framework and encourages the innovation process through this close collaboration with the institutions. The model describes an innovative process that can be easily implemented and replicated by the institutions

Constitution of the TGIF team

For this experiment, the Department of Business Studies of a premier women's college in Bangalore was selected.

Composition of the TGIF Team

o Members of the TGIF team

Focus group of 15 commerce students who have completed the internship in the first year of graduation form a team responsible for running the campaign on designated Fridays at a premier women's college in Bangalore. This segregates the commerce students into two groups namely:

- 1. First group as a focus group of 15 members (TGIF coordinators) as the facilitators of the campaign
- 2. Second group as class prefects and the respective class members as participants.

The class prefects are made responsible for motivating their class for active participation as they represent their class. This allows class prefit to exhibit their leadership skills.

The TGIF campaign:

The theme for the campaign selected is based on the study conducted by the researcher titled Behavioral Competencies: understanding the perceptual difference of behavioral competencies between the employer and intern". Three creative know-how competency skill sets were identified for the campaign namely Communication, Commitment, and Ethical approach. These *creative know-how* **competencies** with the *Learning outcomes* Skills, attitudes, and knowledge are needed to fulfill the need. They represent the solution to the identified need or

issue. These Learning outcomes provided direction in the planning of a Behavioral experiment as a learning outcome activity called "*Thank god it's Friday*".

.The focus group brainstorms on the themes. The shortlisted themes are used to decide the funoriented, team, or group activities. These activities are conducted for all the sections of the commerce stream. The TGIF core team rolls out the interclass competitions providing a platform or forum for students to learn outside the class as a large group with active participation focusing on class as a team, nurturing healthy competition amongst different sections of the commerce stream. TGIF campaign provides an informal platform for the students to try their hands-on activities that interests them and not being judged for their failures if any. This platform inculcates the philosophy of trying new things without being judged or assessed as it emphasizes making the first move that is more important than being assessed how well they do it. For example, if a person has not been the master of ceremonies (MC) for a program and wishes to host one of the TGIF events, the coordinator will be provided an opportunity to host the event. The coordinator will be mentored to do the task.

The focus group is involved in all the five functions of management - planning, organizing, directing, coordinating, and controlling the entire campaign with the assistance of the faculty coordinator. Each focus member selects a specific task based on their area of interest and expertise while they organize the games and competitions of the campaign. Skill-based competitions were organized by the core team in association with the industry interface of Talk temple. The events are organized according to the needs assessment. As a result of TGIF, the TGIF coordinators of the premier institute were recognized for their competencies and skills .8 of the 12 TGIF coordinators were successfully placed in companies like Goldman Sacs, Accenture, Deloitte, Ernst and Young, and many more.

While these intradepartmental competitions and workshops helped in building the skill ecosystem, the TGIF coordinators took the TGIF journey to the next level by integrating with top multinational companies for setting up the infrastructural framework for TGIF. The TGIF association was set up as a part of *the Out of box thinking initiatives* of the department of Business studies of a premier women's college in Bengaluru.

"Making Students Corporate ready" is the key closely monitored by the Department of Business Studies of a premier institute of Bengaluru. Therefore, deep education and progress are the key fundamentals to make the students corporate ready and make it to the dream company further climbing up the ladder and building their successful career. Following these strategies, in focus, the philosophy of TGIF campaigns was set up to provide a range of relevant learning opportunities that support and develop students' creative know-how skillsets at different stages of their academics. To execute this effectively, collaboration with industries and companies to identify core competencies training needs was assessed. Numbers of companies have been approached to set up infrastructure support and to provide intellectual inputs. Other alternative proposals are also explored. The sessions run by the TGIF team aims at molding the students to be creative and innovative professionals who can provide solutions for real-life problems through interdisciplinary activities. TGIF coordinators and the faculty coordinator work on innovative and creative TGIF campaigns. This is done through brainstorming sessions and simulations.

Role of the TGIF team

The TGIF team executes the core theme selected for the academic year after recognizing the core competencies of students and consistently tracks the student's performance to ensure improvement through periodic surveys. These periodic surveys aid the student to identify their

area of strength which they can upgrade further and their areas of improvement which they can focus on.

BROAD RESEARCH AREA

The competencies that compose the Creative Know How domain is important for many reasons, including the fact that they are essential in addressing a range of issues and factors: the roadblocks to employment; the decisions needed to navigate the work/learn landscape; the essentials for cultivating social capital; and the developmental challenges that learners face as they transit to an increasingly volatile world.

STATEMENT OF THE PROBLEM

How can the Creative Know-how skill set be developed and how can colleges play a prominent role in the development of the essential skill set?

OBJECTIVES:

- To assess the creative know how skill, Functional Skills, Communication, and Commitment skills enhanced through TGIF
- To assess value addition of TGIF on students learning outcome of Creative know-how skills set

SIGNIFICANCE OF THE STUDY

The student's involvement and enriching experience with the behavioral experiment TGIF can help the students to enter the industry with additional knowledge and creative know-how skill sets that Improve their capabilities. This allows the educational institution to do its assessment to determine the knowledge, skills, and abilities. The formal examinations are conducted to assess the knowledge of the student in the specific domain which deals with the technical skill sets or the hard skills. The soft skills and the abilities of the student are mapped and monitored through this Behavioral Experiment.

PURPOSE OF THE STUDY

With the abundance of available talent, many industry leaders and employers complain about the skills gap. This behavioral experiment attempts to find out the how and what can be done to bridge the skill gap and make the students corporate ready this involves finding out the existing skills possessed, the strong areas, the lacking areas of the students in terms of skills, and how Colleges and Universities both undergrad and post-grad contribute to increased employment.

RESEARCH OUESTIONS

- What are the realities that students come across and the kind of implications they should develop?
- What creative Know-how competencies combine to broaden the definition of success in the world of accelerating change?

- How can TGIF as a Behavioral experiment help students to develop these competencies?
- What implications does a learning model which is radically out of the box have for the educational institutions running them?
- How should the educational institutions gauge and measure the student learning outcomes from the Behavioral experiment beyond the skill of maths and English?

LITERATURE REVIEW

REVIEW ON THE SKILLS GAP AND THE INSTITUTIONAL SUPPORT

Several studies have highlighted skill gaps, have stated skill gaps to be prominent across all sectors of the industry. A study conducted by IBM states that the time it takes to fill the skills gap has increased more than 10 times in four years. The study also revealed that the skills required are rapidly emerging while other skills are becoming obsolete. For example, in 2016 technical skills were the topmost, however, in 2018 two top skills sought out were Behavioral skills. Skills namely willingness to be flexible, agility, adaptability to change, Time management skills, ability to prioritize, ethics, and integrity are considered as evolving skills. Some studies explored practical intelligence and its relationship with other concepts closely related to Emotional intelligence. Two issues were raised, firstly they explored whether other researchers have classified various factors as Social, Emotional, and Practical Intelligence characterized as Cognitive Skills.

Secondly, whether valid and reliable measures can be developed to measure the same(Hedlund and Sternberg 2000). Other studies emphasized on programs to help the students work in the industry. Programs keenly dedicated to develop and imbibe the skills needed to solve the problem. This approach of skill development activity which is followed by a work-based problem solution provided the chance to study the issue with their specific domains(Ridgman and Wiggins 2003). The emphasis was on the skills and abilities necessary to solve hands-on difficulties that one faces every day in the corporate world. Some studies highlighted university professionals to be self-assured of their hard and soft skill abilities. However, the working professionals on the other hand were increasingly unsatisfied with the growing problem with graduate soft skills or rather lack of (Stewart, Wall, and Marciniec 2016). What accounts for this disconnect of perception? Acknowledging the disconnect leads to reflection on Do college graduates understand the soft skills employers seek? What method or measure is used for the evaluation of these competencies? Are colleges providing adequate opportunities to learn and develop soft skills? These questions along with other questions can clarify the origin of the perceived soft skills gap and how to address it. The present study is based on these questions on skill gaps and how to address them.

REVIEW ON CREATIVE KNOW HOW SKILLS

Soft skills are the competencies associated with one's ability, personality, and attitude to interact with others effectively, believed to be as valuable in the workplace as **hard skills** which are tangible, technical, and measurable competencies. The most desired by the employers are the creative know-how competencies however they are uncommon at the workplace. These skills are imperative when negotiating solutions. In most workplaces, problems arise that need a keen eye for an assessment and help in settling the issue. Most successful managers personify the Creative know-how competencies at the workplace. Employers need to cultivate an environment that fosters all to work together. Some studies emphasized employers to have a different outlook of

the college graduates' level of abilities, (Stewart et al. 2016). However other studies considered the student as competent in dealing with real-life situations as well as problems that arise in real life. The feature of competent focused tasks is based on real-life problems on educational issues. In solving tasks the student and teacher follow different objectives (Bissenbayeva et al. 2013). The workforce solutions group of St Louis Community college in their workforce report highlighted the employer perceptions on key talent issues (Howell 2013). There is a greater need to understand the types of skills, credentials, and modalities of instruction that have value in the labor market. On the other hand, the employers are increasingly frustrated at the growing problem with soft skills, or rather, its lack of (St. Louis Community College & Workforce Solutions Group, 2013). (Hart Research Associates 2015) reported employers report on lack of basic soft skills such as critical thinking, communication, and problem-solving within the group of potential job candidates. This gap then leads to the following questions - Whether the students understand the soft skills that the employers look for? What method is used for these competencies self-evaluation? Whether the institutions provide the prospect to learn and develop soft skills? These questions highlight the base foundation for the present study's behavioral experiment "TGIF". Thank god it's Friday clarifies the base origin of the creative know-how skills set and how to deal with them.

HYPOTHESIS FOR THE STUDY

The study is based on the backdrop of Creative know-how skills in the context of educational institutions. Previous studies established the association of soft skills and hard skills to make the students corporate ready served as a strong basis for the hypothesis formulation. This paper discusses the Value addition of the Behavioural experiment "Thank god it's Friday "which is evaluated through the learning outcomes of students. Any new measurement of student learning and development should essentially link the development, its dissemination, and assessment of knowledge and skills. Considering this the following hypothesis is formulated.

Ha: Functional skills acquired through TGIF influence value addition among students

Hb: Communication skills acquired through TGIF influence value addition among students

Hc: Commitment skills acquired through TGIF influence value addition among students

PROJECTED MODEL

The study involved 33 questions. These questions were for 1) Functional Skills 2) Communication skills 3) Commitment skills and lastly Value addition of TGIF. We have proposed the first three factors as Independent variables. These three independent variables together constitute the soft skills that TGIF imparts and these lead to the value addition of TGIF as the dependent variable.

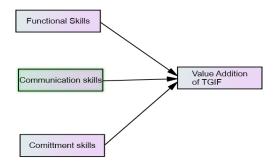


Fig 1 Projected Model for the study

RESEARCH PROCEDURE

Sample Characteristics and Respondent Profiles: The study predominantly descriptive focused on undergraduate students from a premier institute in Bengaluru, India. Forty (40) students and coordinators of TGIF participated in the pilot study. For the final survey, 187 were approached out of which 93 students agreed to participate in the study. This yielded a response rate of 49.73 percentage. All the respondents were women (100%). All the students were found to be in the age group of 19-22 years.

Data collection instrument and procedures: Data collection was administered through a structured questionnaire having four distinct sections demographic profile, Functional skills, Communication, Commitment, and Value addition through TGIF. The questionnaire was administered personally and through electronic media. At the period of data gathering, all the students had taken part in "TGIF", the behavioral experiment initiative. Respondents were requested to rate on a 5 point Likert scale.

i) Functional skills for measuring the functional skills self-constructed scales were deliberated upon the representative items of the questionnaire. Six items adequately representing functional skills were chosen. ii) Communication skills: For measuring communication skills self-constructed scales consisting of 6 items were used iii) Commitment Skills: For measuring commitment skills self-constructed scales consisting of 6 items were used. iv) Value addition: For measuring the value addition of TGIF self-constructed scales consisting of 5 items was used.

VALIDITIY AND RELIABILITY

The most Popular measures are Construct, content, and Criterion validity. Construct validity is further divided into Discriminant validity and convergent validity. Discriminant validity measures the extent to which the constructs are distinct and easily differentiated. The Discriminant validity uses Average variance Explained values (AVE) and the criteria used to measure discriminant validity is a correlation among constructs and the square root of AVE. The discriminate validity values are considered acceptable when the corresponding factor correlation coefficient value is less than the square root of AVE values. The Highlighted values mentioned in table 1 are the square root values of AVE presented diagonally. The correlation table 1 has the

square root values of AVE highlighted and presented diagonally. Most of the coefficient among factors are much lower than the square root of AVE, it is observed that only commitment skills value is more than the square root of AVE. Discriminant validity was moderately addressed. The composite reliability (CR) values need to be higher than .07 and the average variance explained. (Tuffrey 1997) value to be higher than .05. With this condition, it is acknowledged that there is convergent validity of items with their factors (Bagozzi and Yi 1988). As indicated in table 1 both the CR and AVE values are above the prescribed limit. Only the AVE of commitment skills is less than .05 whereas the remaining values are more than the limit and the values of Alpha, CR, and AVE as .71,.79, and .68 for substantial reliability.

Variance Value Addition of TGIF Communication Skills Composite Reliability Commitment Skills Cronbach's Alpha **Functional Skills** Extracted (AVE) Average **Functional Skills** 0.717 0.609 0.535 0.732 Communication 0.795 0.636 0.572 0.440 0.756 Skills Commitment Skills 0.687 0.609 0.358 0.888 0.801 0.599 Value Addition of 0.868 0.723 0.684 0.440 0.150 9.340 0.828 **TGIF**

Table I: AVE, CR and Discriminant Validity test for the measurement model

TOOLS USED FOR THE ANALYSIS

The relationship between the independent and dependent variables was tested through the multiple correlation method. The research hypotheses were used to establish the relationship. Table 1 exhibits the strength of the relationship between creative know-how skills: Functional skills, Communication, Commitment skills, and Value addition of TGIF. The prediction model is statistically significant with F =19.388, P>0.001). Further, it accounts 48.9 % of variance of value addition of TGIF ($R^2 = 0.48.9$, Adjusted $R^2 = 0.471$). The standardized regression estimates of creative know-how skill set as predictors are shown in the table...Communication skills ($\beta = 0.459$, p = .001) is found to exert the strongest influence on value addition of TGIF followed by Functional skills ($\beta = 0.417$, p = .000) and Commitment skills ($\beta = 0.107$, p = 0.405).Hence the hypothesis Ha which postulates that ..Functional skills acquired through TGIF Positively influence value addition of TGIF among the students is supported whereas Hb which postulates that communication acquired through TGIF positively influences value addition of TGIF is supported lastly Hc which postulates that commitment skills acquired through TGIF positively influences value addition of TGIF is not supported.

Insert Table 2

Model Summary

	,	D. C	3	Std. Error of
Model	R	R Square	Square	the Estimate
1	.699 ^a	.489	.471	1.88056

a. Predictors: (Constant), FS_Total, C_Total, CM_total

It is observed that the KMO value for the students is 0.793 which is above the threshold level of 0.70, indicating factor analysis was an appropriate method for data analysis. Twenty-two items were grouped into creative know skills set Functional skills, communication skills, and Commitment skills whereas the rest of the factors were grouped as items of Value addition of TGIF on creative know-how skill set. Further, factors were labeled according to the commonalities among the variables grouped in their respective clusters.

Table 3 Displays the regression weights of the creative know-how the skill set of functional skills, communication skills, commitment skills, and value addition of TGIF.

Table 3: Path Coefficients for testing Hypothesis

				75		Ç		Hypothesis /Not
		Variables		Unstandardized coeffiecient	S-E of B	Standardized efficient	Sig	P value Result (Hyp supported supported)
Value addition TGIF	of	< -	Functional Skills	.417	.085	.444	.000	Supported
Value addition TGIF	of	< -	Communication Skills	.459	.128	.321	.001	Supported
Value addition TGIF	of	< -	Commitment Skills	.107	.128	.078	.405	Not Supported

The exploratory factor analysis yielded a four-factor pattern, with all the items loadings of their respective factors. Confirmatory factor analysis (CFA), with the principal component method, indicated adequate indices for the four-factor structure. The dimension item loading was significant (p<0.01) on their respective dimensions. The standardized regression loadings which ranged from 0.61 to 0.89 and all significant with 99 percent confidence was observed. The CFA model fit indices were $\chi 2 = 46.486$, (TLI) =0.975 and CFI = 0.982 along with the (IFI) = 0.983, (SRMR) = 0.02 and (RMSEA) = 0.046. The coefficient α for this study was 0.717, 0.795, 0.687,

and 0.86 for the following skills: Functional skills, Communication commitment skills, and Value addition of TGIF towards these creative know-how skills set.

Testing of Hypotheses is based on estimated proposed relationships using a structural equation model. The standardized path coefficients are shown in fig1Hypotheses Ha and Hb find support regarding the relationship between functional skills, communication skills with value addition of TGIF however Hc indicating a relationship between Commitment and value addition does not seek support.

DISCUSSION

This study analyzed the role of TGIF as a behavioral experiment seeking constructive change. Results indicate three creative know-how skillset: Functional skills, Communication, and Commitment change significantly as a positive relationship is established between Functional skills, communication skills, and commitment skill set with Value addition of TGIF. Value addition of TGIF towards the creative know-how skill can be improved through efficient and optimistic working practices that are necessary for change. The most vital involvement of this research is identifying the fortes of functional skills. Communication skills and commitment skills that are relevant for the talent acquisition of the students. The findings have both theoretical and practical implications. These findings suggest that when students are allowed to initiate events like TGIF they invest their time and effort in a collective peer sharing platform where their cognitive, emotional, and physical energies are exhibited in the work role that they will take up in the future at their workplace. These skills when invested simultaneously in the job they undertake reflect in positive different performance. Although in literature and writing related to research, several studies linking talent acquisition employability skills to the higher educational institutions were found (Stewart et al. 2016). This study tests these creative knowhow skills with value addition through initiatives like TGIF to enhance employability skills and talent acquisition. Hence we projected and established them empirically.

This research specifies that these creative know-how skillsets act as impending skills with significant IEs that elucidate the value addition of TGIF towards talent acquisition and enhancement of employability skills of the undergraduate students. These findings attempted to answer the call for investigation of potential creative know-how dimensions underlying the positive behavioral change and performance of the student. It also highlighted the requirement to improve and implement positive practices that enhance the creative know-how skill set of the students. Specifically, this study provides evidence that creative know-how skills set can be improved through policy and implementation of behavioral experiments or initiatives like TGIF for the students to plan, schedule, and execute workplace fun activities. It is to be noted that these activities engage the students cognitively, emotionally, and physically. This platform provides chances to join in numerous happenings related to arts, sports, and Business events that lead to positive performance traits.

Students feel very extremely secure to express themselves in an informal atmosphere as they are not being judged to be the best or be a part of the competitive race rather than take the opportunity to challenge themselves. The fear of underperformance is transitioned into the sheer joy of participation in terms of holding the mike, working in a team, going on stage, or be a backstage performer. As a group, they set clear objectives, and identify different pathways for the achievement of targets that the regular curriculum may not provide. When creative know-how skills set get converted into fun activities the students are more likely to work with a high amount of intensity and capitalize their energies to it. This entire procedure replicates the talent

acquisition and employability indices with an increased rate of internships and job placement offers. Our findings suggest that these creative know-how skill set can be developed as resources of positive psychological resources and strengths (interpersonal skills, communication, team and relationship building, etc) that could be built and enhanced through positive practices or initiatives as TGIF.

Our study has some possible restrictions. Firstly, with the popularity soaring the TGIF fun events among the students slowly showed signs of competitive pressure to get the class points. The class prefects started filtering the performers for their events and started choosing the best performers of the class rather than allow someone who would like to try. These small changes were underplaying at the informal channels of communication of the class. Another challenge was the commitment skills which are a highly subjective skill set. The results indicated that commitment skills showed poor value indicators to support the value addition of TGIF. Possible descriptions for this low value including specific attributes can be used. These subtleties may be handled with multi-level analysis that remains an area for future research.

In conclusion, this study contributes towards theory and practice by further support to the importance of developing the creative know-how skill set to engage the students at work through positive work practices for positive talent acquisition and employability skills. Finally, this study contributes to the objective of bridging the gap of employability skills with industry interaction that creative know-how skill set is influenced with the value-added initiatives such as TGIF.

Bibliography

- 1. Anon. 2019. "IBM Study: The Skills Gap Is Not a Myth, But Can Be Addressed with Real Solutions Bloomberg." *Bloomberg*. Retrieved April 1, 2020 (https://www.bloomberg.com/press-releases/2019-09-06/ibm-study-the-skills-gap-is-not-a-myth-but-can-be-addressed-with-real-solutions).
- 2. Anonymous. 2016. "Essential HR Manager Skills and Competencies." *The University of Scranton Online*. Retrieved April 5, 2020 (https://elearning.scranton.edu/resource/business-leadership/essential-hr-manager-skills-competencies).
- 3. Bagozzi, Richard P., and Youjae Yi. 1988. "On the Evaluation of Structural Equation Models." *Journal of the Academy of Marketing Science* 16(1):74–94.
- 4. Bissenbayeva, Zhanat, Koshirbayeva Aigerim, Tanabekova Zinagul, and Nabieva Zhanar. 2013. "Students' Competency Level Evaluation on the Basis of Competence Centered Tasks." *Procedia Social and Behavioral Sciences* 89:872–75.
- 5. Björklund, Lars. 2008. "The Repertory Grid Technique: Making Tacit Knowledge Explicit: Assessing Creative Work and Problem Solving Skills." *Researching Technology Education* 46–69.
- 6. Hart Research Associates. 2015. "Falling Short?: College Learning and Career Success | VOCEDplus, the International Tertiary Education and Research Database." Retrieved April 5, 2020 (https://www.voced.edu.au/content/ngv%3A78305).

- 7. Hedlund, Jennifer, and Robert J. Sternberg. 2000. "Too Many Intelligences? Integrating Social, Emotional, and Practical Intelligence." Pp. 136–67 in *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace*. San Francisco, CA, US: Jossey-Bass.
- 8. Ridgman, T. W., and C. N. Wiggins. 2003. "Postgraduate Problem-Based Learning for Manufacturing." Pp. 4/1-4/6 in 2003 IEE Engineering Education Conference.
- 9. Stewart, Carol, Alison Wall, and Sheryl Marciniec. 2016. "Mixed Signals: Do College Graduates Have the Soft Skills That Employers Want?" *Competition Forum* 14(2):276.
- 10. Tuffrey, Michael. 1997. "Employees and the Community: How Successful Companies Meet Human Resource Needs through Community Involvement | Emerald Insight." Retrieved May 29, 2020 (https://www.emerald.com/insight/content/doi/10.1108/13620439710157470/full/html).