

# Building Transferable Skills through Informal Experiences

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## Abstract

As students reach the end of their college experience and begin transitioning into adulthood, there is often a discrepancy between the skills students gained in college and the skills they are able to articulate to potential employers. We investigated this discrepancy through looking at informal skill building experiences in regards to group work, social interactions, extracurricular participation and leadership, and classroom experiences. We used a random sample of undergraduate students at a small, private, liberal arts college to identify where students gain skills that can transfer to a future career and how the college has helped students to recognize and articulate these skills. We used students' responses to test three hypotheses: 1. Students who believe group work is valuable are more confident in their own set of transferable skills; 2. Students who report that their professors identify transferable skills in class are more likely to be able to identify and articulate their own transferable skills; 3. Students who make greater use of on-campus, career-related resources are more able to identify their set of transferable skills gained through informal experiences than students who use those resources less often. We found statistically significant correlations that support all three of our hypotheses. Our results indicate the college in our study could emphasize group work in class, encourage faculty to discuss transferable skills, and bolster on-campus, career-related resources to increase student confidence in transferable skills.

## Review of Literature

Literature on transition to adulthood explores various aspects of the shift from college to work (Brown 2004; Network on Transition to Adulthood 2006; Goodwin and Jasper 2008; Luzzo and McWhirtier 2001; Wendlandt and Rochlen 2008). Many researchers refer to young adulthood as a new stage of development, in which individuals continue to learn social expectations and skills necessary for career success (Brown 2004; Network on Transition to Adulthood 2006; Goodwin and Jasper 2008; Luzzo and McWhirtier 2001; Wendlandt and Rochlen 2008). Our research focuses on the informal experiences and skill building of college students in preparation for their transition to the work force.

Academic literature on informal experience and skill-building is dominated by discussion concerning the concept of transferable skills. Kemp and Seagraves (1995) define transferable skills as skills and competencies which can be applied in multiple contexts. Much of the

literature on transferable skills indicates that the skills current employers find most desirable in potential employees are effective communication and teamwork. (Greenan, Humphreys, and McIlveen 1997). Questions that arise from the literature include which transferable skills are most important, how students perceive the acquisition of these skills, and how faculty can help students build and recognize these skills (Kemp and Seagraves 1995; Haigh and Kilmartin 1999; Bjorkland, Parente, and Sathianathan 2004; Murtonen, Olkinuora, Tynjala, and Lehtinen 2008).

According to Kemp and Seagraves (1995), the acquisition of these important transferable skills in college allows students to successfully adapt to diverse working environments. Many employers consider it essential that graduates be aware of their individual set of transferable skills before entering the working world (Greenan, Humphreys, and McIlveen 1997). Although transferable skills are valued in the workplace, there are often perceptible discrepancies between the skill sets employers desire and the skills graduates obtain and can effectively articulate (Farner and Brown 2008; Chen, Donahue, and Klimoski 2004; Murtonen, Olkinuora, Tynjala, and Lehtinen 2008). Farner and Brown (2008) studied this incongruity and determined recent college graduates generally lack independence, decision-making skills, and preparedness. Another study highlights the issue of employer frustration with the poor communication skills and lack of self-awareness exhibited by recent graduates (Greenan et al. 1997).

Whether students realize it or not, they are learning a variety of transferable skills in college. However, they may struggle with identifying their acquired skills and articulating their skill set to potential employers. For instance, teamwork is considered by employers to be a valuable transferable skill students may not initially recognize they have. Chen, Donahue, and Kilmoski (2004) demonstrated an understanding of teamwork is valued more by employers than university educators, which may explain why group work is not currently an integral part of curriculum.

Many graduates will be expected to work in teams in their future careers. For this reason, it is imperative students not only understand group dynamics but also how they can influence group accomplishments. In order to gain this understanding, students must be given the opportunity to work in groups to experience and feel comfortable with group interactions (Greenan et al. 1997). A study conducted by Greenan, Humphreys, and McIlveen (1997) emphasizes the need for higher education to focus on the development of group work, along with implementing more critical self- and peer-assessment, as these practices will most likely mimic the structure of what students will experience after graduation in their chosen careers.

Teamwork is not the only skill students fail to recognize as important. Murtonen, Olkinuora, Tynjala, and Lehtinen (2008) found students do not value and thus do not fully internalize the skills learned in research courses, because they often doubt the usefulness of these skills in the working world. Murtonen et al. (2008) point out students fail to understand that the skills learned in research courses are transferable to many jobs, including jobs outside of academia. As American society becomes increasingly information based, it will be necessary for people in a variety of fields to understand and engage with scientific literature and be equipped to participate in the creation of knowledge.

A study by Haigh and Kilmartin (1999) found that employers value applicants who have a broader skill set as opposed to simply having the knowledge and skills specifically related to one's discipline. It is worth noting that college students become proficient in specific subject matters, yet they also learn and practice transferable skills such as clear communication, effective time management and problem solving (Haigh and Kilmartin, 1999). Though education for the sake of learning a discipline has traditionally been the major emphasis of higher education, there has been a growing demand for a curriculum that focuses on explicitly teaching transferable skills (Greenan et al. 1997).

Haigh and Kilmartin (1999) studied the effectiveness of teaching transferable skills in the classroom. They asked students and professors to indicate whether certain skills were taught,

practiced, or assessed. Responses varied greatly between first-year students and third-year students as well as between students and faculty. Overall, first-years were unaware of skills being taught implicitly. On the other hand, third-years and professors believed students were able to demonstrate awareness of skills not explicitly taught in the classroom. Additionally, a study done by Farner and Brown (2008) found that upperclassmen actually felt less prepared than underclassmen for the working world. Farner and Brown suggest that this decrease in perception of preparedness is a result of students becoming more aware of the challenges they will face in the working world.

The question then arises, how can professors help students develop and recognize transferable skills even if they do not explicitly teach students about these skills? Faculty feedback and student interactions with faculty can have a large impact on students' perceived gains in building informal transferable skills (Bjorkland, Parente, and Sathianathan 2004). A group of researchers surveying engineering students found a significant positive correlation between instructors' interactions and feedback and students' recognition of transferable teamwork skills, problem solving capabilities, occupational awareness, and competency in their field (Bjorkland et al. 2004). They also found students were more aware of their skill sets when professors provided opportunities for collaborative work on longer projects with multiple components (Bjorkland et al. 2004).

At the college where they conducted their study, Kemp and Seagraves (1995) found professors' approach to the teaching and assessing of transferable skills varied considerably. They believe this inconsistency could lead to confusion for students and could hinder students' confidence in their skill sets. Faculty should, therefore, focus on creating relationships with their students, providing frequent feedback, and structuring classes around collaborative activities, rather than lectures, to foster growth in transferable skills (Bjorkland et al. 2004).

Colbeck, Campbell, and Bjorkland (2000) suggest professors should increase the quantity of group work and foster opportunities for students to collaborate with outside entities.

They also note it would be beneficial to the development of students' transferable skills to partner students who have experience working in groups with those who do not. Additionally, other researchers suggest students pursue internships and research opportunities with faculty members to further enhance their development of transferable skills (Bjorkland et al. 2004).

In general, Kemp and Seagraves (1995) found students who felt they had received formal instruction in the four transferable skills studied by the researchers (report writing, oral presentations, group work, and graphical communication) were the most confident about being ready for work. Additionally, students who perceived they had used the four skills often felt more prepared for work. Of the four skills, students reported they felt most confident about group work.

Students develop transferable skills in a variety of settings outside of the classroom and outside of interactions with faculty, such as in extra-curricular activities. Involvement in extra-curricular activities is often related to successful employment. Tchibozo (2007) notes students who did not participate in extracurricular activities were almost three times as likely to begin working as office employees rather than as managers. Capelli (1992) argues that extracurricular achievements predict future success in the working world more accurately than grades. He also points out that skills such as interpersonal skills, motivation, and integrity are oftentimes learned through extracurricular involvement rather than through classroom experiences. Additionally, the type of extra-curricular activity a student participates in, as well as their degree of leadership in that activity, can influence their employment success. According to Tchibozo (2007) students who participated in leadership positions had better access to managerial positions and a lower risk of unemployment before their first job, and students who participated in citizenship activities had the best access to large firms. Tchibozo did not indicate which activities or types of leadership were most conducive to securing future managerial positions. However, he noted that leadership in student associations or cultural activities were least conducive to securing

managerial positions and more conducive to securing lower supervisory positions or positions as office employees.

Positions of responsibility outside of extra-curricular activities can also lead to the cultivation of transferable skills. In their study concerning students' perceptions of group work, Colbeck et al. (2000) found over half of their sample mentioned previous work experience, internships, research assistance-ships, and/or college readiness programs as experiences which developed their personal set of transferable skills.

The discrepancy between employers' desires and the transferable skills students are able to articulate indicates the need for an improvement in communication between graduates and employers. Teamwork, classroom experiences, and extra-curricular activities facilitate the building of transferable skills, yet students often fail to recognize these skills. A shift in faculty interactions, classroom structure, and perhaps introducing formal skill-building resources in the classroom could help bridge this gap. The problems with the teaching and acquisition of transferable skills are relevant to our research on the relationship between informal experiences and informal skill building. For our research we are interested in testing three hypotheses:

1. Students who believe group work is valuable are more confident in their own set of transferable skills;
2. Students who report their professors identify transferable skills in the classroom are more likely to be able to articulate these skills;
3. Students who make greater use of on-campus, career-related resources are more able to identify their set of transferable skills gained through informal experiences than students who use these resources less frequently.

## **Methods**

Our research was conducted in fall 2010 through a survey of students at a private liberal arts college in the Upper Midwest. For our purposes, survey research is the most appropriate

method of collecting data. After choosing a sample, we sent each potential respondent an e-mail invitation with a link to our online survey questionnaire through “Form Creator” requesting their participation. Our research tested three hypotheses, listed above in the Review of Literature.

The independent variables reflected in our hypotheses are student perception of the value of group work, student perception of how many of their professors discuss transferable skills in class, and student use of on-campus, career-related resources. For each independent variable, we consider the same dependent variables: students’ ability to identify and articulate transferable skills and their level of confidence in these transferable skills.

To measure the first independent variable - *student perception of the value of group work* - we asked respondents to identify whether they prefer group work over independent work. We created an index to ask students about the helpfulness of group work for improving important transferable skills, including the ability to communicate effectively, to work independently as well as with others, to take leadership positions, to network with others, to motivate oneself, and to manage time effectively. We focused on group work because effective team work and collaboration are vitally important in most working environments students will encounter after college (Greenan, et al. 1997).

To measure the second independent variable - *students’ perceptions of how many of their professors discuss transferable skills in class* - we asked respondents to identify if all or almost all, most, some, a few, or none of their professors explicitly identify and discuss transferable skills learned in class.

To measure the third independent variable - *student use of on-campus, career-related resources* - we asked respondents to identify how frequently they use the resources provided by the college’s on-campus career center and how helpful they found those resources to be for identifying their transferable skills. The majority of these questions used a five-point Likert scale with the options “Strongly Agree,” “Somewhat Agree,” “Neutral,” “Somewhat Disagree,” and

“Strongly Disagree”. Other questions required either open-ended responses or specific responses tailored to the question being asked. For instance, one open-ended question provided specific response options for the respondent to indicate how frequently they use the career center services.

For the first dependent variable - *students’ ability to identify and articulate transferable skills* - we asked respondents about the importance of transferable skill development for the workplace. We also asked how valuable they believed group work, classroom experience, extracurricular involvement, and social interactions are in skill development. For the second dependent variable - *students’ level of confidence in their transferable skills* - we asked respondents to gauge their level of confidence in their abilities to communicate effectively, work independently as well as with others, take leadership positions, network with others, motivate oneself, and manage time effectively. These questions were also asked using a five-point Likert scale with the options “Strongly Agree,” “Somewhat Agree,” “Neutral,” “Somewhat Disagree,” and “Strongly Disagree”.

We strove to achieve content validity, which requires that all aspects of our conceptual definitions be addressed in our survey questions (Neuman 2007). We sought to attain this by clarifying each of the concepts or definitions in our survey and making sure our survey questions fully addressed our definitions. For instance, our survey question pertaining to social interactions explicitly states, in broad terms, the types of relationships in which we were interested (e.g. friendships, roommate relationships, relationships with faculty, etc.), to help ensure that our respondents’ answers reflect our conceptualization. To achieve face validity, which is the approval of others in the field that our method of measurement matches with our definitions, we had a professor and other researchers review our questions and made adjustments accordingly.

For our survey results, we sought to attain a high degree of reliability, ensuring the measure of our variables was consistent and dependable (Neuman 2007). Four steps were



essential in this process: conceptualizing research definitions in a clear manner, making sure our research was performed with a precise level of measurement, using multiple indicators for any one variable, and using pretests or pilot tests to make sure our survey was received in the manner we intended (Neuman, 2007). For the first step, we strove to define our terms and concepts in the clearest manner possible. For example, in defining extracurricular activities, we labeled them as “including but not limited to varsity sports, intramural sports, student organizations, student government, musical ensembles, volunteering, and interest clubs” to ensure the clarity of our concept. With such a broad term like extracurricular activities, it was almost impossible to briefly label every permutation of this concept. Overall, we felt that our definitions covered the majority of the terms’ implications.

To attain a higher level of precise measurement, we used Likert scales that included five choices. For example, we used the statement “I believe the following are important for developing skills for the workplace” with several transferable skills listed below the statement. We gave students the response options of “Strongly Agree,” “Somewhat Agree,” “Neutral,” “Somewhat Disagree,” and “Strongly Disagree.” We did this to ensure more valid answers than yes-no questions. While a Likert scale including more than five options may have yielded more nuanced results, we were unsure whether respondents would take the time to thoughtfully consider the difference between responses if there were more than five options. Thus, we felt that our five-point Likert scale was the most precise level of measurement we could attain in this survey.

To address the use of multiple indicators on our survey, we intentionally asked questions that would overlap conceptually to provide more reliable answers. For instance, in an effort to gauge students’ perceptions of group work, we asked respondents to assess the following statements and answer them with the same five-point Likert scale: “for class, I would rather work individually than with a group” and “group work does not foster valuable skill

building.” A comparison of these answers has proven to be useful in determining the reliability of our survey.

Finally, we employed pretests to help refine our survey and ensure its applicability. Members of our research course completed our survey and commented on unclear or troublesome aspects. By also holding a focus group session, we were able to gain validity and develop concepts to identify potential areas of investigation for our survey.

One of the main ethical issues for our research is respondent privacy, or ensuring the anonymity and confidentiality of respondents. For our research, it was important to make sure that no student’s personal information was made public. In our survey, both anonymity and confidentiality were achieved, as no specific student names were attached to survey responses. In order to increase survey responses, the individuals who responded to the survey were eligible to enter a drawing to win a prize. In order to enter the prize drawing respondents were asked to send an e-mail with their name to our professor. Despite knowing the identities of the respondents choosing to participate in the drawing, we had no way of connecting any respondent to any particular response.

Another important ethical concern was making sure respondents gave their informed consent. With informed consent, any information that is released is done with the permission of the student. We informed respondents that their responses would contribute to the project development and research endeavors of the institution. Additionally, we made sure all respondents were aware that their participation in the survey was completely voluntary and could be terminated at any time without penalty. Also, we explained to respondents that if questions on the survey made them feel uncomfortable they would not face any penalty for not answering.

Another ethical concern of our research was the potential emotional distress survey questions might cause for respondents. While our topic is not highly sensitive, we took precautions to avoid creating unnecessary stress by providing the option to skip certain

questions. This ensured that students would not feel pressured or inadequate in their responses. Therefore, we made an effort to formulate non-biased, non-leading questions.

For this research, we were interested in the opinions of students at a private liberal arts college in the Upper Midwest from all class years, with a variety of academic backgrounds. The student population at this college is predominantly white and composed mainly of students, ages 18 to 23. To obtain data, we sent an electronic version of the survey to a simple random sample of 777 students drawn from the student population of approximately 3,000. From this sample, we excluded students studying abroad, students who participated in our focus groups, students in our research course, and students who were sent other statistics or sociology surveys around the same time. Out of this sample, 292 people responded, giving us a response rate of 37.6%. Based on those that responded, 37% (106) were male and 63% (182) were female. The most common majors reported were biology, psychology, and English, yet the most common response was “undeclared.” We had students from all classes with 24% freshman (70), 29% sophomores (82), 21% juniors (61), and 25% seniors (73).

## **Results**

### *Univariate Indices*

We used a Likert scale measurement to determine levels of student agreement regarding statements addressing skill-building in our survey. We outlined nine transferable skills including communication with peers, communication with people older than the respondent, communication with individuals who hold different views, ability to work independently, teamwork, capability to take on leadership positions, self-motivation, time management skills, and networking. We labeled each of the Likert scale categories with numerical values as follows: strongly disagree= 0; somewhat disagree=1; neutral=2; somewhat agree=3, strongly agree=4 (Table 1). Thus, a student who averages “somewhat agree” has a total score of 27.

**Hypothesis 1) Students who view group work as valuable for future employment are more confident in their own set of transferable skills than students who view group work as less valuable.**

### *Confidence in Transferable Skills*

We created an index of students' overall confidence in the transferable skills we outlined. The index score ranged from 14-36. The mean was 28.97 (St. dev. 4.757), and the median was 30. Students were most confident in working independently and communicating with their peers, and least confident in networking and effective time management (Table 1).

**Table 1.** Confidence in Transferable Skills

Transferable Skills	Mean	Median	Standard Deviation
Independent Work Skills	3.71	4.00	0.520
Communication with Peers	3.49	4.00	0.722
Communication with Individuals Older than the Respondent	3.39	4.00	0.796
Teamwork Skills	3.36	3.00	0.520
Communication with Individuals Who Hold Different Views	3.24	3.00	0.756
Capability to Take on Leadership Positions	3.23	3.00	0.870
Self-Motivation	3.09	3.00	0.894
Time Management Skills	2.96	3.00	0.958
Networking Skills	2.51	3.00	1.084

### *Group Work Improves Transferable Skills*

We created an index to measure how strongly students agree that group work in classes cumulatively improved the nine skills we outlined. There was a full range of total scores from 0-36, with a mean of 26.19 and a median of 26.

A bivariate correlation test found a statistically significant correlation ( $p=0.000$ ) between students' confidence in their transferable skills and the skills they reported gaining through working in groups for classes (Figure 1 and Table 2).



**Figure 1.** Correlation between Confidence in Abilities and Skills Gained from Group Work

**Table 2.** Correlations between Confidence and Group Work Indices

		Index of Confidence in Abilities	Index of Skills Gained from Working in Groups for Classes
Index of Confidence in Abilities	Pearson Correlation	1	.383**
	Sig. (2-tailed)		.000
	N	281	258

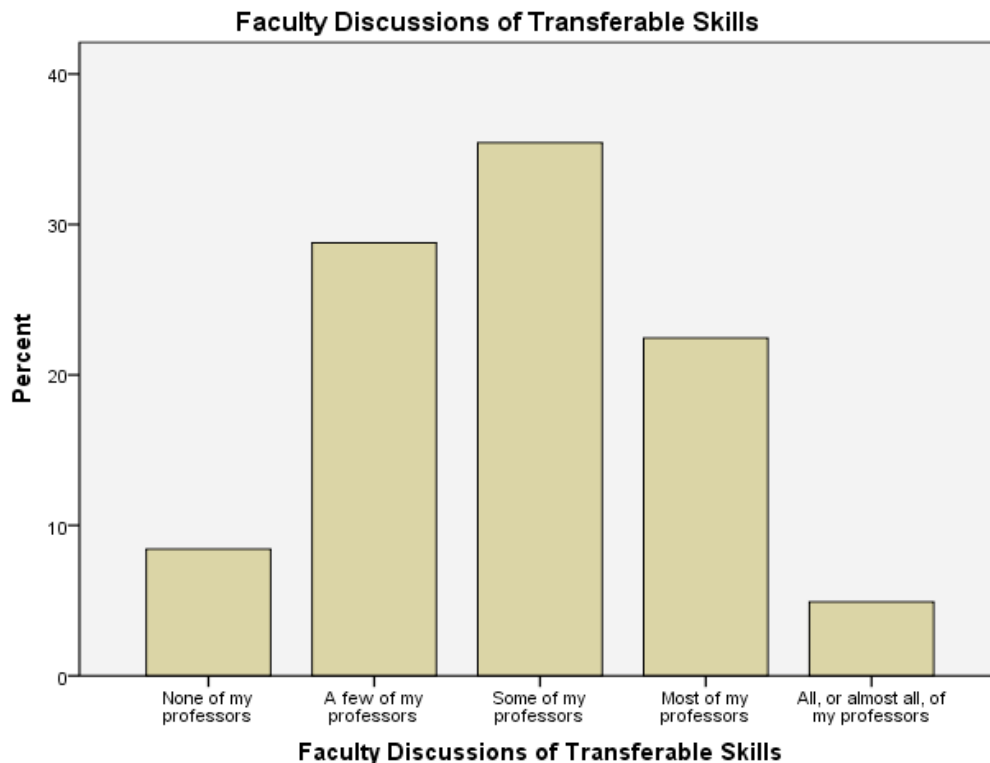
\*\* . Correlation is significant at the 0.01 level (2-tailed).

*Comparison between Group Work and Independent Work*

We asked students to indicate their level of agreement with statements related to independent work and group work. We ran analysis on both questions and found the following: 67.8% of student respondents indicated they either somewhat or strongly agree they would rather work individually than with a group. 17.1% of students reported a neutral attitude towards group work. 77.1% of student respondents indicated they either somewhat or strongly disagree group work does *not* foster valuable skill building and 13.7% of students reported a neutral attitude towards the statement “group work does not foster valuable skill building”.

**Hypothesis 2) Students who report that their professors identify and discuss transferable skills in class are more likely than other students to be able to identify and articulate their own transferable skills.**

Our survey also asked students, “In your view, what proportion of your professors clearly identify and discuss transferable skills learned in class?” 70.9% of students said that none, few, or some of their professors clearly identify the transferable skills learned in that class. Only 29.1% of students reported that most or all of their professors identify transferable skills learned in class (Figure 2). The mean was 1.87, indicating an average response of “Few of my professors” or “Some of my professors.” There were 285 respondents and a standard deviation of 1.016 (Fig 2). We found a statistical significance ( $p=0.008$ ) between student reports of professor transferable skill identification and student confidence in transferable skills (Table 3).



**Figure 2.** Student Perception of Faculty Transferable Skill Identification

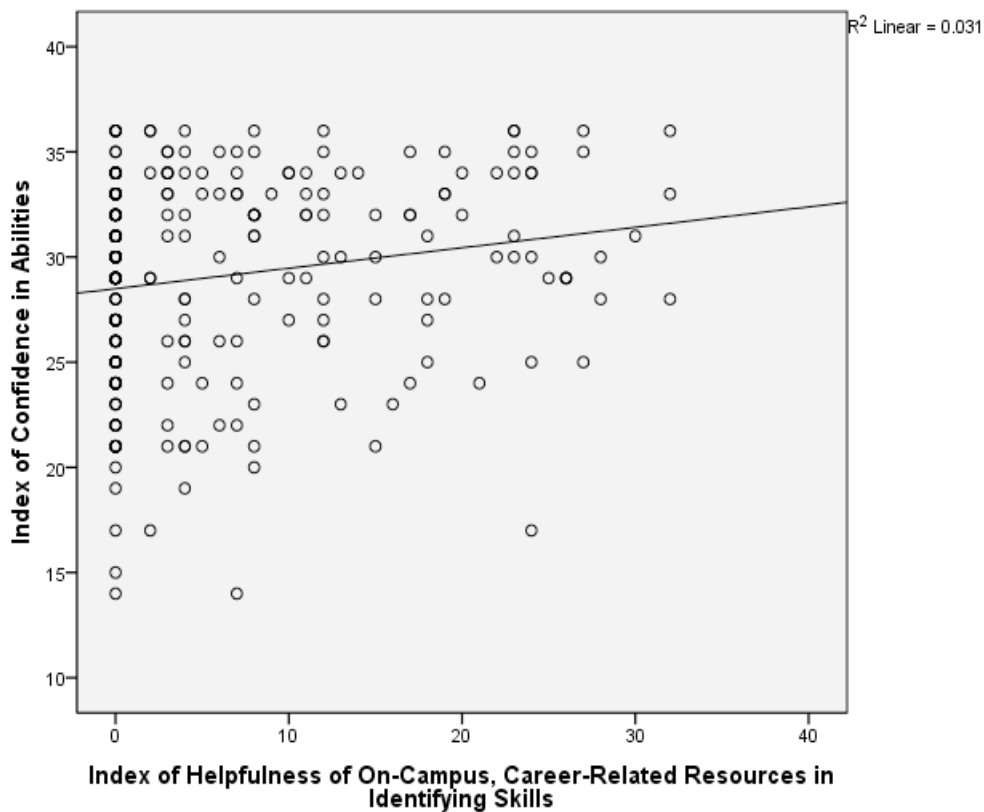
**Table 3.** Correlation between confidence index and faculty discussion of skills.

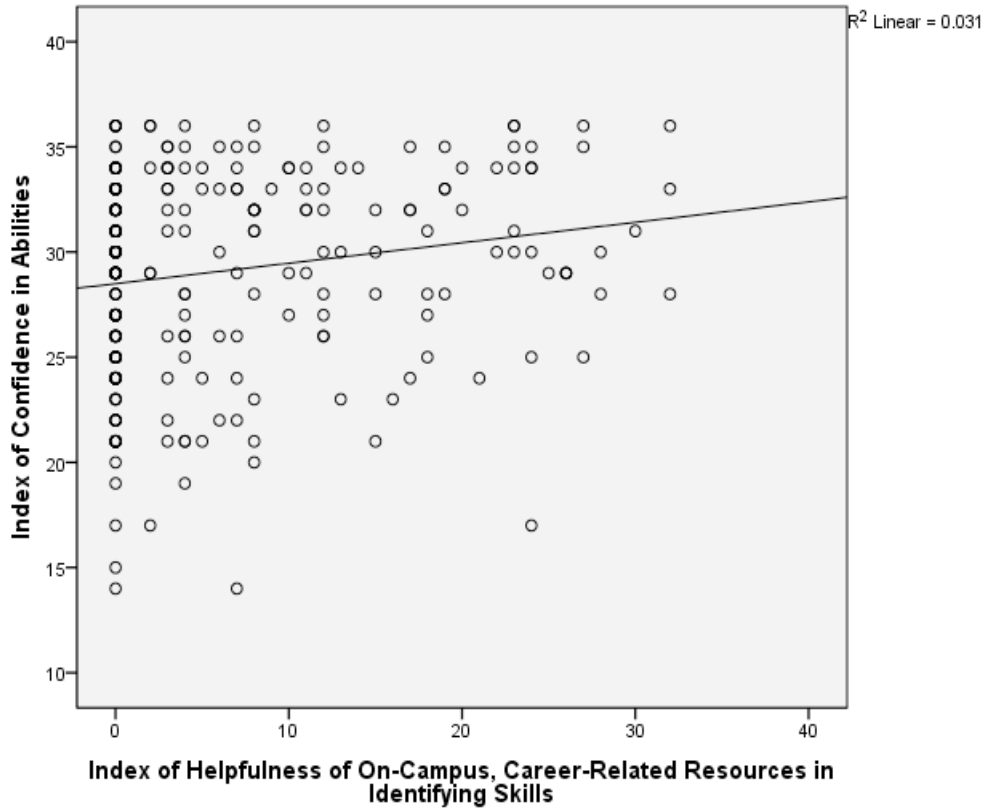
			Index of Confidence in Abilities	Faculty Discussions of Transferable Skills
Spearman's rho	Index of Confidence in Abilities	Correlation Coefficient	1.000	.149*
		Sig. (2-tailed)	.	.013
		N	281	276

\*. Correlation is significant at the 0.05 level (2-tailed).

**Hypothesis 3) *Students who make greater use of on-campus, career-related resources are more able to identify their set of transferable skills gained through informal experiences than students who use those resources less.***

We found a statistically significant correlation ( $p=0.004$ ) between students' confidence in their transferable skills and student perceptions of the helpfulness of on-campus resources which help students identify transferable skills (Figure 3 and Table 4).





**Figure 3.** Correlation between Confidence in Abilities and Helpfulness of On-Campus, Career-Related Resources

**Table 4.** Correlations between Confidence and On-Campus, Career-Related Helpfulness Indices

		Index of Confidence in Abilities	Index of Helpfulness of On-Campus, Career-Related Resources in Identifying Skills
Index of Confidence in Abilities	Pearson Correlation	1	.175**
	Sig. (2-tailed)		.004
	N	281	271

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Also, we found a statistically significant positive correlation ( $p=0.049$ ) between the frequency of on-campus, career-related resource use and student confidence in transferable skills (Table 5).



**Table 5.** Correlations between Confidence Index and Frequency of On-Campus, Career-Related Resource Use

		Index of Confidence in Abilities	Frequency of On-Campus, Career-Related Resource Useage
Index of Confidence in Abilities	Pearson Correlation	1	.119*
	Sig. (2-tailed)		.049
	N	281	276
*. Correlation is significant at the 0.05 level (2-tailed).			

### Discussion

The index of confidence we created had a mean of 28.97 which indicates that, overall, students more than somewhat agree they are confident in the skills outlined in our survey. Students were most confident working independently and communicating with peers. Even though students reported being very confident in working independently, a study by Farner and Brown (2008) determined that employers find recent college graduates to generally lack independence. It is important to note that while students in our study report confidence in independent work, they may not effectively demonstrate this perceived confidence to employers. The mean of the group work index was 26.19, which indicates that students view group work as beneficial to building certain skills. Our data illustrate a weak, positive, statistically significant correlation between student perception of the value of group work and overall confidence in transferable skills. This supports our hypothesis that students who view group work as valuable are more confident in their transferable skills. While students see group work as valuable, they still prefer to work individually. Thus, it is important for professors to continue to emphasize group work. This is congruent with a study done by Chen et al. (2004) which suggested that group work should be utilized more by professors because it is highly valued by employers.

Our data also support our second hypothesis: students who report faculty explicitly addressing transferable skills are more confident in said skills. We found a statistically significant, positive correlation between student reports of faculty transferable skill identification and student confidence in transferable skills. In other words, our data suggest that when professors discuss transferable skills in class, student perception of confidence in their transferable skills will improve. This correlation echoes the findings of Bjorkland, et al. (2004), who found a significant positive correlation between instructors' interactions and feedback and students' recognition of transferable teamwork skills, problem solving capabilities, occupational awareness, and competency in their field. Additionally, in our study, the majority of student respondents reported that none, few, or only some professors identified transferable skills in class. Therefore, we believe it would be beneficial for professors to more explicitly identify transferable skills.

Finally, our research supports our final hypothesis that students who use on-campus, career-related resources are more confident in the nine transferable skills we outlined in our survey. Our data show a positive, statistically significant correlation between student perception of the helpfulness of on-campus, career-related resources in identifying their transferable skills and student confidence in their transferable skills. Our data also show a statistically significant relationship between frequency of on-campus, career-related resource usage and student confidence in their transferable skills. It is plausible that students who are already confident in their transferable skills are the same students who would be highly motivated to take advantage of career center services. Confidence, then, would be the *motivation* for career center use, not the *result* of career center use. Efforts could be made to make students familiar with on-campus, career-related resources earlier in their college career. It would also be beneficial for professors to encourage the use of on-campus, career-related resources.

## Conclusion

Our study examined the acquisition of transferable skills within informal contexts. Our findings supported our first hypothesis: those students who understand group work as valuable are more confident in their transferable skills than students who do not believe group work is valuable. This might have interesting implications for the way group work is used within the classroom. Students might learn to view group work differently if its value in relation to transferable skill-building is discussed by the professor.

Our results also gave credence to our second hypothesis: students who indicate that faculty address transferable skills in class are more capable of articulating their own transferable skills. Our results suggest that the majority of professors across most disciplines are not effectively addressing skills learned in class. Our data imply that if professors were to address these skills, students might have more confidence in their transferable skills and might be more able to identify and articulate these skills.

Our third hypothesis was also supported by our data: students who use on-campus, career-related resources are more able to identify their transferable skills than students who do not use such resources. This clearly indicates that increased awareness and use of on-campus, career-related resources would be extremely beneficial for students to better identify and articulate their transferable skills to future employers.

Our research also generated some unexpected findings. First, we found that, overall, students prefer individual work over group work within the classroom. We also found, however, that students still rate group work as highly valuable for building transferable skills. This implies that, although students seem to dislike group work, they still recognize its value. A second unexpected finding was that students perceive extracurricular activities to be the most beneficial for transferable skill-building. Further research on skills learned within specific extracurricular activities would contribute to a more complete understanding of the relationship between extracurricular activities and skill building.

As our survey was completed at a small liberal arts institution with specific demographic information (e.g. more women than men, more Caucasian students than students of other backgrounds), our study cannot be generalized to all students at all institutions. The length of the survey was another potentially limiting factor. As the surveys we distributed to the student population were rather long, it may have been that only those students with particular qualities (e.g. higher degrees of patience, perseverance, etc.) completed the survey, and these students may have skewed the results.

Our study may have also been limited by a lower response rate, the timing of the distribution of the survey, and the potential for over-representation of particular demographics. The response rate for our survey was lower in comparison to other surveys from our research course sent out at the same time. This raises the possibility that responses unrepresentative of the population had a disproportionate influence on our results.

Also, as the survey was sent out to students at the beginning of the academic year, students may not have had ample time to begin to use resources or make judgments about the efficacy of resources. For instance, first year students may not have completed group work assignments in their courses, let alone considered the various career-related resources available to students. Anecdotally, students have been known to utilize career-related resources more in the spring; asking about these services in the fall may have been premature.

We also believe there was the potential for respondents, given their year-in-school, to “over-report” or “under-report” their perceptions. For instance, a first year student may feel much more confident and optimistic about her transferable skill set than a senior who faces an impending emergence into the job market.

Much of our study focused on the relationship between the informal experiences of respondents and their perceptions of their transferable skill sets. For example, if a respondent utilizes on-campus, career-related resources, will she gain greater awareness of her transferable skill set? Our research focused less on *how* students engage with such

resources. For instance, respondents found on-campus, career-related services to be helpful, but this tells us very little about their patterns of engagement with these resources, e.g. are resources used repeatedly, how much time is spent preparing for or expanding upon on campus career-related resources, etc. Thus, research that delves more deeply into the “how” of student engagement with informal experiences would be an appropriate extension of our study.

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