Learning While Earning:
Student Employment and Learning Outcomes

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Abstract

Current literature on learning indicates that certain workplace experiences, such as collaboration, problem solving, task repetition and reflection, should promote undergraduate learning in key domain areas, such as Career Development, Civic and Community Engagement, Leadership, Ethics and Values, and Responsible Independence. In the present study, quantitative and qualitative survey data measuring perceived learning and frequency of workplace experiences were collected from student employees and their professional staff supervisors at a college union. After controlling for external experiences, significant relationships between everyday workplace activities and undergraduate learning were demonstrated. Further research is needed to address gaps in perception between students and staff and to test the validity of these results in other environments.

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Research Question

What on-the-job experiences at a college union relate most strongly with undergraduate learning outcomes?

Rationale for the Project

It is important to resolve this Master's Project Question for several reasons. First, in an era of increasing demands for accountability on college campuses, both academic affairs and student affairs must do better in demonstrating the concrete learning gains made by our students during their time at our institution. Second, the Division of Student Affairs at Northwestern has devised a set of learning domains – areas in which the Division believes that professional staff members can have positive influence – for our students. These domains are: career development; civic and community engagement; intra- and inter-personal competence; ethics and values; healthy living; intercultural competence/maturity; leadership; responsible independence. As of February 2007, the Norris University Center employed 164 students in many assorted jobs (e.g. audiovisual technician, bookstore sales assistant, information desk attendant). Through this project, which measured student employees' (and staff) perceptions on several of the above-listed learning domains, the Norris Center is now able to report to the Division of Student Affairs the extent to which its students' learning maps onto the identified domain categories, or, conversely, the extent to which it diverges.

Additionally, this project is important to research because much of the current literature (e.g., ACPA & NASPA's *Learning Reconsidered* and *Learning Reconsidered 2*) is long on theory and short on data when it comes to assessing growth in specific, desired learning outcomes that occurs in extracurricular or co-curricular settings. While this project admittedly does not measure concrete, verifiable gains in student learning between two points in time, it does present an objective measure of how much these student employees embody the principles of each learning domain, as well as the extent

to which their employment at the Norris University Center has contributed to their relative success in each domain.

The Master's Project question addressed herein has personal significance in that it directly addresses aspects of my position at the Norris University Center as well as my future career path working in college unions – one part of a cohesive Student Affairs division. This personal significance also arises from an experience as part of Northwestern's 10-year re-accreditation site visit in 2004. The commission's majority report stated that Northwestern's administrators, faculty and staff will be held accountable by 2014 for objectively demonstrating how our programs translate into student learning. Pursuing the above Master's project question has helped this researcher in a professional capacity as Event Production Manager of the Norris University Center and also to serve this laudable (not to mention mandatory) goal. The Division of Student Affairs has decided what learning outcomes its staff should cultivate in the student population; therefore this project has explored what on-the-job experiences contribute to the learning within one segment of Northwestern's undergraduate population.

Answering this question will undoubtedly improve the Norris University Center's practice by enabling the staff to better identify learning domains for all student employees; create achievable learning objectives within each domain; measure student employee growth along these objectives; and create changes that will further improve student learning. This project is a concrete and empirically-based step in this direction. Given the intense pressure from all of Northwestern's stakeholders, there is simply no time to waste.

Literature Review

Introduction

While educated individuals may disagree, many scholars have said that colleges and universities in the United States exist mainly to help students learn how to be productive adult members of society (e.g., American College Personnel Association [ACPA], 1996a; American Council on Education [ACE], 1949, Watson & Stage, 1999). The learning that sparks this development takes many forms: curricular, co-curricular, and extracurricular. The concept that important learning can occur outside the classroom is relatively recent to the higher education literature, having been articulated only within the past 70 years. In that time, offices of student affairs – as distinguished from academic affairs – have identified specific areas of an undergraduate experience outside the classroom where they believe that administrators and staff can exert a positive influence on student development and learning. Professional organizations such as the American College Personnel Association and the National Association of Student Personnel Administrators [NASPA] along with standards review organizations such as the Council for the Advancement of Standards in Higher Education have united in recent years around the idea of targeting growth in student learning in areas that bring together academic and student affairs personnel and programs (ACPA & NASPA, 2004; Council for the Advancement of Standards [CAS], 2003a). Examples of such areas include career development, leadership opportunities, and the development of a personal system of ethics and values.

A student's part-time employment experience while at college has been shown to be fertile ground for producing growth and learning in these and other important

knowledge areas (Kincaid, 1996; Pascarella & Terenzini, 2005). Once primarily an avenue for students from low socioeconomic backgrounds to pay their way through college, undergraduate student employment has expanded and flourished beyond mere financial support to actively promote student learning in areas supported by student affairs administrators. Research from higher education, primary and secondary education, and the corporate workplace has defined areas of concentrated learning that can be stimulated via certain experiences, activities or behaviors on the job (American Association for Higher Education [AAHE], ACPA & NASPA, 1998; Brown, Collins & Duguid, 1989; Eraut, 2000; Kolb, 1984; Resnick, 1987). Examples of these experiences include collaboration and teamwork, problem solving, and reflection. These experiences have direct cross-over to many undergraduate employment positions at the university where the present study was conducted.

The ideal locale where practitioner-researchers can observe and measure job-oriented learning experiences is the college union. Since its conception at Oxford University in 1815 the college union has become the campus community center, a place that directly engages the undergraduate population and, through its programs and services, catalyzes growth and learning on many levels (Peters, 1997). One such program is student employment. A typical college union employs many students in areas as varied as operations, campus activities and student involvement, finance, recreation, information technology, maintenance and sales. It is due in part to this breadth of opportunities that the college union is an ideal location to study student learning.

In an attempt to better identify the impact of undergraduate employment on student learning, this study addressed the following question: What on-the-job

experiences at a college union relate most strongly with undergraduate learning outcomes? What follows is a review of the current literature on: 1) present demands for greater accountability in higher education; 2) holistic student development and desired learning outcomes for undergraduates; 3) student employment programs and the learning opportunities they present; 4) workplace experiences that should produce higher levels of learning; and 5) the college union as a laboratory well-suited to research on student learning. Taken together, this literature review uncovers the potentially positive impact a thoughtful student employment program, situated within the college union, can have on undergraduates and their growth in specific learning outcome areas and sets the stage for gathering data for the above research question.

<div align="center">Present Demands for Accountability in Higher Education</div>

Higher education in contemporary America has struggled to keep pace with a host of new challenges, including the way knowledge is created, disseminated and revised almost constantly in a digital era; a student population that is more diverse in age and background than at any time in our nation's history; and restricted access to obtaining a bachelor's degree among rural or poor Americans, immigrants, and first-generation college students (ACPA & NASPA, 2004; Sandeen, Albright, Barr, Golseth, Kuh, Lyons & Rhatigan, 1987). Cutting across each of these is perhaps the strongest challenge for our nation's universities today: the demand for greater accountability in student learning (ACPA, 1996a). According to ACPA & NASPA (2004):

> Knowledge is no longer a scarce – or stable – commodity. Especially in science, engineering, and technical fields, knowledge is changing so rapidly that specific information may become obsolete before a

student graduates and has the opportunity to apply it. There are more

providers and sources of knowledge, and the development of myriad

educational offerings for learners of all ages has diversified the

structures, purposes, and outcomes of education. Digital

technologies and the Internet have made access to knowledge easy

and inexpensive, while creating a broad space for competitive claims

about the legitimacy and veracity of information (pp.4-5).

With the face of knowledge changing so rapidly in our global economy, stakeholders in

America's educational system are struggling to establish nationwide standards in

curricula and pedagogy. Parents, accrediting bodies, and legislators, among others, have

accepted the fact that – while information and knowledge may change on a daily basis –

the wheels and gears of our educational enterprise (e.g. textbooks, exams, teachers and

graduation requirements) cannot. Therefore, these stakeholders have begun to coalesce

around a set of knowledge areas and skills an educated citizen must possess or

demonstrate in order to become a productive member of our society. Following this is a

demand for greater accounting of the American educational system. The specific

questions to which these stakeholders seek answers are multi-faceted: what exactly are

students learning while at college? To what extent are students demonstrating growth in

the agreed-upon knowledge areas? And to what extent is the university – and by

extension its faculty and staff – facilitating this learning? (ACPA, 1996a; ACPA, 1996b;

ACPA & NASPA, 2004)

In the recent past, a perceived lack of self-accounting among higher education

produced a powerful tide of resentment among certain groups toward institutions that

failed to measure, document and report student learning. In response, state and federal appropriations to higher education were greatly reduced in the recession of 2000-01, and many colleges were forced to raise tuition costs or slash budgets drastically to make up for lost revenue (Hebel & Selingo, 2001). Fiscal challenges and suspicion of higher education's secretive practices combined with depressing reports about the educational readiness of the next generation of Americans – particularly in math and science – to produce a clarion call for accountability and increased transparency within America's colleges and universities (Bowen, 2001). America's consumerist tendencies were brought to bear on higher education as the public demanded to know what concrete deliverables they received in exchange for the high cost of tuition, housing, and textbooks.

While the most comprehensive educational accountability initiative in recent memory – the federal No Child Left Behind Act of 2001 – was targeted squarely at America's primary and secondary schools (No Child Left Behind, 2007), higher education was dealt its fair share of criticism from parents, politicians and the news media (ACPA & NASPA, 1996). As representatives from colleges and universities defended their academic programs, budgetary choices and tuition increases to the public, the overwhelming response was a demand for greater accountability in student learning. Specifically, higher education was called upon to articulate clear learning objectives for students enrolled in American universities, demonstrate to what extent students have learned these objectives, and, finally, produce proof as to exactly how enrolled students accomplished this learning. These demands stretched from local school boards around the country to Washington, D.C. In September 2006, the U.S. Secretary of Education,

Margaret Spellings, condemned the nation's accrediting standards as lax and avoidant of

comprehensive learning assessment:

> Right now, accreditation … is largely focused on inputs, more on
>
> how many books are in a college library, than whether students can
>
> actually understand them. Institutions are asked, 'Are you measuring
>
> student learning?' And they check yes or no. That must change.
>
> Whether students are learning is not a yes-or-no question. It's how?
>
> How much? And to what effect?   (Bollag, 2006, p.A1)

By focusing her criticism on the standards by which the nation's college and universities

achieve accreditation, Secretary Spellings identified a consensus belief among Americans

– or, at the very least, among senior Bush administration officials – that greater

accountability in learning can be achieved if only the broader higher education

establishment looks to outputs (deliverables), as opposed to inputs (resources), for

concrete evidence of learning. The impact of these challenges is palpable across

institutions and the burden of response falls on both faculty and administrators. Recent

literature addressing these challenges in learning and accountability advocates a sea

change in the way colleges approach learning. Rather than teaching students from an

intellectual, academic perspective that stands in contrast to a humanist, emotional or

spiritual perspective, some authors say its time to address the whole student in all aspects

of their college experience (ACPA & NASPA, 2004).

Holistic Student Development and Desired Learning Outcomes for Undergraduates

Student affairs literature is awash with strategies for appropriately responding to

concerns of accountability and learning (ACPA, 1996a; ACPA 1996b; Astin, 1984; Kuh,

1996; Pascarella & Terenzini, 2005). The strongest voices advocate an epistemological shift in the way faculty and student affairs administrators conceive of student involvement – active participation in the structure and programs offered outside the classroom, often labeled the co-curriculum or extra-curriculum (ACPA, 1996a; ACPA 1996b; Astin, 1984; Kuh, 1996; Pascarella & Terenzini, 2005). These authors maintain that the college curriculum and co-curriculum must be holistic and transformative in nature (ACPA & NASPA, 2004; Boyer, 1987; Braskamp, Trautvetter & Ward, 2006), a seamless part of the overall educational experience (Kuh, 1996), attuned to the diverse experiences and perspectives of today's students (Braskamp et al., 2006) and focused on shaping students into lifelong learners (Baxter Magolda, 1999). Addressing students holistically – as whole persons with intellectual, moral, psychological and spiritual needs – enables faculty and staff to better understand today's students in all their complexities (Braskamp et al., 2006).

In many ways this shift toward a more well-rounded education harkens back to aspirations laid out in *The Student Personnel Point of View* (ACE, 1949). Yet it is worth remembering that while the message may be very similar, the environment for today's students nearly six decades later could hardly be more different. Therefore the present challenge for faculty, staff and professional organizations is complex and multi-layered: create a transformative undergraduate experience; establish major areas of learning for today's diverse student populations; determine which assessment methods will demonstrate growth and development; conduct assessments, communicate results to key stakeholders, and plan for future improvement and change.

The first step taken by higher education institutions to begin demonstrating student learning was to first define broad areas of knowledge that faculty and administrators believed were worthwhile and had within their control to teach. These knowledge areas – or *domains* – were designed to take into account the wide-ranging diversity among student populations in age, ethnicity and background and ideally would apply across institutional type and geographic region (e.g., Student Learning Outcomes Project, 2005). The next step was to devise a set of *outcomes* within each learning domain – general statements that define the domain and establish cognitive or behavioral components that should be nourished in students (e.g., Student Learning Outcomes Project, 2005). The final step was to break apart those outcomes into *objectives* – clearly defined behaviors, actions or tasks that students must accomplish in order to demonstrate growth or proficiency in the domain (e.g., Student Learning Outcomes Project, 2005).

Professional organizations in higher education have also begun articulating learning outcomes over the past several years. For example, the Council for the Advancement of Standards in Higher Education (CAS, 2003a) published a list of 16 desirable student learning domains along with specific examples of how students could demonstrate achievement in these areas. The 16 domains are as follows: intellectual growth, effective communication, enhanced self-esteem, realistic self-appraisal, clarified values, career choices, leadership development, healthy behavior, meaningful interpersonal relationships, independence, collaboration, social responsibility, satisfying and productive lifestyle, appreciating diversity, spiritual awareness, personal and educational goals. ACPA and NASPA (2004) presented a tighter package of seven desirable student learning domains along with dimensions of each outcome and "sample

developmental experiences for learning" (pp.18-19). The seven domains are: cognitive

complexity; knowledge acquisition; integration and application, humanitarianism; civic

engagement; interpersonal and intrapersonal competence; practical competence;

persistence and academic achievement. (See Table 1 for a full listing of learning domains)

Table 1. **Learning domains**

CAS	Northwestern University	Learning Reconsidered
Intellectual growth	Career development	Cognitive complexity
Effective communication	Civic and community engagement	Knowledge acquisition integration and application
Enhanced self-esteem		
Realistic self-appraisal	Intra- and interpersonal competence	Humanitarianism
Clarified values	Ethics and values	Civic engagement
Career choices	Healthy living	Interpersonal and intrapersonal competence
Leadership development		
Healthy behavior	Intercultural competence/maturity	
Meaningful interpersonal relationships	Leadership	Practical competence
Independence	Responsible independence	Persistence and academic achievement
Collaboration		
Social responsibility		
Satisfying and productive lifestyle		
Appreciating diversity		
Spiritual awareness		
Personal and educational goals		

Note. From the Council for the Advancement of Standards (2003), Northwestern University's Division of Student Affairs (2005) and Learning Reconsidered by ACPA & NASPA (2004)

Despite organizing or linguistic variations, some learning domains are very well

established over time and therefore indicate broad acceptance and validity of their

objectives. Five specific domains will be addressed in this project and thus are discussed

in greater detail here: career development, civic and community engagement, leadership, ethics and values, and responsible independence. (When discussing the learning domain name hereafter, the domain will appear capitalized and in italics.)

Career Development is cited as a worthwhile domain in the revised edition of *The Student Personnel Point of View* (1949), which advocates progression toward "appropriate vocational goals" as undergraduates prepare for "satisfying, constructive, postcollege activity" (p.25). ACPA & NASPA's *Learning Reconsidered* (2004) refers to developing students' "self-sufficiency and vocational competence" (p.19) as they "develop the knowledge and skills they need for today's rapidly changing world" (p.29). The CAS (2003a) guidelines state that students should be able to "articulate career choices based on assessment of interests, values, skills and abilities" in addition to performing more rudimentary (though no less important) tasks like resume creation or job searches (p.1). Developmental theorists such as Erikson (1980) and Chickering and Reisser (1993) believed that exploring possible careers is a necessary step undergraduates must take along the road to greater self-awareness and identity development.

Ethics and Values development is also widely discussed in the literature, from early cognitive-developmental theories (e.g. Kohlberg's Stages of Moral Development, 1976) to current researchers studying holistic student development (Braskamp et al., 2006). *The Student Personnel Point of View* (1949) speaks to students' almost inevitable need to revise long-held religious dictates and moral beliefs in light of "newly acquired scientific and technical knowledge" (p.26). The CAS (2003a) encourages administrators to watch for students articulating a personal values system and then making behavioral choices in congruence with those stated values. ACPA's *Principles of Good Practice for*

Student Affairs (1996) states that administrators must help students "develop coherent

values and ethical standards" (p.1).

Other learning domains that have been well-supported over the years include

Civic and Community Engagement, which refers to participation in the university

community and governance as well as becoming a responsible citizen (ACPA & NASPA,

2004; Astin, 1984; Braskamp et al., 2006; Student Learning Outcomes Project, 2005;

Pascarella & Terenzini, 2005); *Leadership*, which refers to understanding the relational

construct of being a leader, setting ethical examples for others and taking on

responsibility to lead groups toward a shared vision (ACPA & NASPA, 2004; Braskamp

et al., 2006; CAS, 2003a; Student Learning Outcomes Project, 2005; Pascarella &

Terenzini, 2005); and *Responsible Independence*, which refers to developing practical

competence in effective communication, time management, and self-sufficiency in the

service of leading a satisfying and purposeful life (ACPA & NASPA, 2004; Braskamp et

al., 2006; CAS, 2003a; Student Learning Outcomes Project, 2005; Pascarella & Terenzini,

2005). In part due to such widespread agreement upon the importance of the above-

mentioned knowledge areas, these domains play an important role in the current research

project, and are therefore discussed in greater detail below.

Student Employment Programs and Learning Opportunities

Research on student involvement over the past few decades has shown that a large

majority of undergraduates work part-time while pursuing their degree. The percentage of

full-time, traditional-aged students (16-24) working increased from 35 percent in 1972 to

46.5 percent in 1988 (Kincaid, 1996, citing Hexter, 1990). The most current statistics on

student employment indicate over 80 percent of undergraduates work and nearly 60

percent work at least 15 hours per week (Pascarella & Terenzini, 2005). According to

UCLA's Fall 2006 survey of over 271,000 college freshmen nationwide, 44.1 percent of

respondents said they planned to get a job to help pay for college expenses while in

school (Lipka, 2007). While much of this research has shown that students work

primarily to earn money for tuition or other living expenses, career development, skills

acquisition and personal fulfillment each play a large role in the decision to work as well

(Kincaid, 1996; Mulugetta & Chavez, 1993; Pascarella & Terenzini, 2005). The Federal

Work-Study [FWS] program, which began in 1964 targeting students from low-income

families who needed financial assistance in order to afford tuition, enrolls a large number

of students who work while in college (A. Horne, personal communication, January 15,

2007). In addition to providing economic support for students and mandating a certain

percentage of enrollees participate in community service, universities like the FWS

program because the federal government pays 70 percent of students' earnings, while the

university pays the remaining 30 percent.

Student employment has been shown to positively affect learning and growth in

key domains. Some of the strongest data links undergraduate work experience to post-

graduate success in one's career, whether it's finding a job (Casella & Brougham, 1993),

snagging a good salary (Gleason, 1993), developing effective work habits (ACE, 1949)

or attaining a high level of professional responsibility (Pascarella & Terenzini, 2005).

These positive benefits seem to be enhanced in students whose employment experience is

directly connected with career goals or interests (Pascarella & Terenzini, 2005). Casella

and Brougham's study (1995) excellently sums up some of the specific skills growth

found in undergraduates who worked while in college, crystallizing exactly why they display enhanced career outcomes:

> Approximately two-thirds of the human resources personnel surveyed indicated that, compared with those with no work experience, college graduates with work or internship experience during college produced higher-quality work, accepted supervision and direction more willingly, demonstrated better time management skills, and were better able to interact with coworkers on team projects. Over 90 percent of those surveyed indicated that work experience during college enabled graduates to make a more rapid transition from college to full-time employment (as cited in Pascarella & Terenzini, 2005, p.519).

Other studies have shown that part-time, on-campus work has a positive effect on areas outside career growth or skill development, such as persistence and degree completion (Pascarella, Edison, Nora, Hagedorn & Terenzini, 1998; Pascarella & Terenzini, 2005), and ego development (Chickering, Frank & Robinson, 1993). Additionally, research on how people learn provides salient connections to experiences found in undergraduate employment settings, and will be discussed below.

<div align="center">Workplace Experiences and Learning</div>

Learning has been referred to as the "unifying goal" of American higher education (Watson & Stage, 1999, p.5). Learning itself is a complex process, one that has been discussed in many volumes over the course of many years. Much of this research, from the writings of John Dewey in the early 20th century to the present day, has

addressed the need for active context to create a successful learning process. Central to this concept is the premise that learning is inherently situated, meaning that it cannot be separated from its context (AAHE, ACPA & NASPA, 1998; ACPA & NASPA, 2004; Brown et al., 1989; Eraut, 2000; Resnick, 1987). In other words, learning must be thought of as an event that occurs within a specific process, behavior or situation; attempting to learn separate from the specific experience is meaningless at best and impossible at worst.

Theoretical Frameworks

Brown et al. (1989) provide one of the most accessible frameworks for discussing situated learning – a combination of authentic activity, context and culture they refer to as "situated cognition" (p.32). An example of situated cognition might be the choice between learning a foreign language through an immersion program and enrolling in a weekly foreign-language class. Embedding oneself thoroughly into the environment where that particular language is spoken allows the language to become an authentic representation of the surrounding people and culture, not to mention a necessary tool for survival. A foreign-language class cannot replicate the authenticity of that situation and is therefore a more passive context for learning.

Since knowledge is fundamentally linked to situations and activities in which it is called upon, separating knowledge from its context effectively freezes that information in time. If allowed to remain tied to its active context, knowledge undergoes frequent revisions and is therefore closer to a current, truer version of itself. Therefore, incorporating a situated-cognitive perspective into the instructional process encourages

students to develop a richer, more textured, and ultimately more useful method for interacting with information (Brown et al., 1989).

Situated cognition theory has many similarities to Kolb's (1984) theory of "experiential learning" and Wenger's (2004) writings on "communities of practice". Kolb describes experiential learning as knowledge created through a "transformative experience," a journey the learner takes in four steps: first, a concrete experience, which leads to observation and reflection, followed by the formation of abstract concepts, that, in the last stage are actively tested and refined in new experiences (as cited in Kolb, Boyatzis & Mainemelis, 2000, pp.2-3). An example in higher education might be a student witnessing a protest march for abortion rights. Observing the march causes her to reflect on what she noticed about the march as well as her own feelings about abortion rights. After some reflection the student decides that she is willing to support abortion rights within certain restrictions. This conceptual belief will remain with her until a new situation arises where she can actively test out the belief; in all likelihood the experience will cause her to re-examine her beliefs and the transformative process starts over again.

Wenger (2004) makes the case for communities of practice, defined as groups of people with similar concerns who seek to learn and grow through their interaction with one another. According to Wenger, communities of practice exist nearly everywhere – companies, government, educational sector, even youth gang culture, and others – but can emerge only when participants have three common traits:

- They share interests in the same <u>domain</u>, or content areas;
- They voluntarily form a cohesive <u>community</u> through activities, discussions and other interactions; and,

- They undertake a shared <u>practice</u> utilizing similar tools or experiences (p.2).

Communities of practice can be powerful vehicles for learning because to some extent

their success is defined by the strength of their communal bond and their group

commitment to learning and growth, both of which develop organically from within.

Several researchers have sought to put these theories into action in educational

settings. Brown et al. (1989) and Lave (1988) each support a learning model called

"cognitive apprenticeship," whereby a teacher or coach sparks learning by mimicking the

structure found in craft apprenticeship: first they guide students by modeling behaviors or

describing explicit knowledge and later they empower each student to utilize their own

intuition as they pursue independent growth and further action. Through expert guidance

in an authentic context students have the opportunity to develop cognitive tools within

the environments in which they will ultimately be applied.

In calling for primary and secondary schools to teach "situation-specific forms of

competence," Resnick (1987) argues that schools do not emphasize essential skills that

students will need as adults. For example, students are graded largely on their own

individual efforts while in school, yet the world that awaits them after graduation is an

intricate social network where success in work, relationships and other pursuits will often

depend on their ability to function productively in larger groups and overcome challenges

together (pp.13-15). Instead of attempting to prepare school children for every possible

situation or barrier they may face – a task that is undoubtedly impossible – Resnick

(1987) argues for encouraging students to develop mental models of the larger systems

that dominate our society; therefore, when one part of a larger cultural system changes,

students will be prepared to respond with the tools of awareness, understanding, and flexibility (p.18).

Vygotsky's (1978) theory of "zones of proximal development" encourages educators to create authentic tasks that are just beyond a student's current competency level, such that a small amount of modeling and coaching (or "scaffolding") from the teacher will enable the student to effectively solve the problem independently and then proceed to a harder task. When students have the experience of struggling to master a task just beyond their capabilities, the learning that results may be transformative in the way Kolb (1984) suggested, as described above.

Crossover to Higher Education

AAHE et al. (1998) argue that faculty and administrators must create "compelling situations" where students can engage in an "active search for meaning," establish connections between activities and content from within and outside the classroom setting, and utilize prior knowledge to catalyze growth (pp.2-3). This theory translates to practice every time students apply concepts they're studying in the classroom to "real-world" situations. Examples might include examining buildings inside and out before writing a paper on architectural trends or building homes for the homeless in Appalachia after discussing the nature of urban blight in the American South.

A delicate balancing act emerges when looking at these theories and recommendations in the context of higher education: faculty and staff must intentionally create the context for learning while simultaneously yielding to each individual student the responsibility of monitoring his/her own growth and development (ACPA, 1996b; ACE, 1949). At college, where students are so much more independent as compared with

primary or secondary students, it's helpful to approach this task through the frame of identifying developmental experiences available to college undergraduates. By enhancing opportunities for experiences which, according to current research, should produce greater learning, college faculty and administrators can solidly move one step closer to making the concept of an active learning context a reality (ACPA, 1996a; ACPA, 1996b).

Student Employment as a Powerful Situated Environment

As explained above, student employment is an important active context wherein theories of learning likely translate into concrete undergraduate learning outcomes. In order to empirically study this hypothesis, the situated environment – in this case a student employment setting – must be pulled apart into its constituent experiences. A review of the literature on co-curricular (and especially workplace) student learning suggests that certain types of experiences are likely to lead to enhanced growth and development, especially in the context of student employment, and will be discussed in greater detail here.

Formal or informal training. Formal training appears most frequently as a classroom-like situation, with a designated trainer/teacher clearly differentiated from the students or attendees, a clear time-frame and structure for the program, and a deliberative framework of material the students are expected to learn over the course of the program (Eraut, 2000). Informal training differs in its level of intention (often lower), its time-frame (much shorter) and its location (usually right when a situation occurs that requires additional guidance). Eraut (2000) describes informal or "reactive" learning as "brief, near-spontaneous reflection on past episodes, communications, events, experiences" (p.116).

In a student employment setting, formal training may appear as the first official gathering between a student and his/her professional staff supervisor, when the goal is explicitly for the student to learn how to do the job they have been hired for. In larger teams, this formal training may take the form of a retreat and extend over the course of several days. Informal training in a student employment setting may appear incidental (e.g. a supervisor providing a student staff member with a quick reminder on how to forward a phone call) or take the form of rapid feedback to a situation that just occurred.

Observing co-workers. Observation is cited as the first step in an apprenticeship-like model of learning that includes coaching and eventually approximating the behavior (Collins, Brown & Newman, 1990). In this model, a student observes and notes actions over time in an attempt to socialize with the dominant culture (Eraut, 2000). In an employment setting, students have the opportunity to observe their older or more experienced peers as they carry out job tasks, noting qualities such as the relative pace and attitude with which a task is approached, the interaction style used when conversing with clients or other co-workers, or the ratio of time spent on work tasks as compared with schoolwork or personal tasks. Then the newer student employee can decide to what extent they will mimic the observed behavior or behave differently.

Collaboration and teamwork. Adults must be able to learn and work in teams in order to function in our society (Gardner, 1993). Therefore a stronger focus on independent as opposed to group work (as is emphasized in much of primary and secondary education) leaves students unprepared for the collaborative work environment that they will face after graduation (Resnick, 1987). Collaborative learning while in college allows students to practice skills such as: collective problem solving; deliberative

thinking and the ability to rapidly respond in conversation; displaying multiple roles, which may vary depending on a group's dynamics or needs; and confronting ineffective strategies and misconceptions regarding the project at hand (Brown et al., 1989; Eraut, 2000; Wenger, 2004). Finally, collaboration encourages students to interact with peers who have diverse backgrounds and experience a connectedness that may contribute to an inclusive campus climate (AAHE et al., 1998; Sandeen et al., 1987).

In a student employment setting, an example of collaboration and teamwork might be several members of the same working group discussing how to attack a project together; ultimately someone assigns roles to each person involved in the process and the project moves toward completion due to everyone's combined efforts.

Feedback from peers or supervisor. Feedback is a critical component of learning; without effective feedback there may be little-to-no improvement in performance (Chickering & Reisser, 1993). When given appropriately, feedback should be both feasible and produce a net positive effect (Eraut, 2000, p.134). It should communicate an expectation of "high but achievable standards," a commitment to improvement, and support for responsible risk-taking (AAHE et al., 1998, pp.7-8). Feedback from peers is especially important in communities of practice, as participants seek a dynamic, growth-oriented environment (Wenger, 2004). In a student employment setting, feedback may take the form of mid-year and end-of-year performance assessments; informal "check-in" meetings; or other communiqué that establish, change or reiterate policies in light of a current or recent situation.

Informal interactions with supervisor. "Much learning takes place informally and incidentally, beyond explicit teaching or the classroom, in casual contacts with faculty

and staff, peers, campus life, active social and community involvements, and unplanned by fertile and complex situations" (AAHE et al., 1998, p.8). Informal interactions with one's supervisor have the potential to create mentorship relationships between students and the "older" adults on campus. In addition to friendship, these interactions can further enhance a student's integration of his/her social and academic worlds (ACPA, 1996a; Pascarella & Terenzini, 2005). In a student employment setting, informal interactions may occur during working hours, outside the workplace at office receptions or parties, or at community or sporting events that attract attendees from all over campus.

Task repetition. Repeating tasks is an important component of the learning process; on the road to skill development, it helps students move beyond a checklist of daily procedures on the way toward an intuitive or "tacit" understanding of how to carry out a job's requirements (Eraut, 2000, pp.123-124). Additionally, task repetition is often the first step taken after receiving constructive feedback on ways to improve one's performance; as the old saying goes: "practice makes perfect."

Student employment settings are ripe with task repetition, whether it's answering the phone with a specific salutation, providing consistent information to a wide variety of clients, processing paperwork in a specific order, or assembling a sound system before a musical performance. Task repetition also can teach college students how to become accustomed to certain "human resources" expectations of an employee (e.g. filling out paperwork accurately, arriving on time for work, or dressing a certain way before leaving for work).

Problem solving. Problem solving opportunities allow students to take charge of their learning, utilizing their experiences and perspective to overcome conflicts or other

roadblocks (AAHE et al., 1998). Likewise, effective problem solving skills will help students thrive in collaborative settings, where problems can derail an entire group's work thus far (Brown et al., 1989) or where the entire group cannot move the practice forward until the issue is overcome (Wenger, 2004). Resnick (1987) points out that the most successful students after graduation will be those who are adaptive learners – flexible and able to respond to whatever unexpected situation might arise. In other words, every problem that a student encounters and overcomes will make him/her better prepared to handle whatever comes next.

Opportunities for problem solving in student employment settings likely vary wildly depending on job content or level of responsibility. For example, a student with supervisory responsibilities will almost certainly have to solve more complex problems (e.g. scheduling issues, personality conflicts, and competing demands for time) than would a student employee with fewer responsibilities.

Idea experimentation. The opportunity to experiment with new ideas is a unique skill, one that encourages growth in appropriate risk-assessment. This opportunity allows for the time to put theories into practice, and establishes oneself as an active participant in the task at hand (AAHE et al., 1998; ACPA, 1996b). In a student employment setting, idea experimentation can be tested behind the scenes (e.g. managing styles), with clients or patrons (e.g. an innovative solution to a complex problem) and with one's supervisor (e.g. testing different styles of interaction).

Reflection. Eraut (2000) describes two cognitive components of deliberative reflection: reflective deliberation and prospective deliberation. The former exists to "make sense of and/or evaluate one's experience, including what one has heard and

read," whereas the latter "is directed towards a future course of action and includes decision-making and resolving contentious issues" (p.127). In other words, reflection consists of the ability to assess one's current experiences as well as analyze future issues that might arise. In a student employee's experience, reflecting upon what aspects of their job they like or dislike is a key step in thinking about what comes next – whether a summer job, internship or budding career track – and ensuring the next job they have best fits their inclinations (Little & Chin, 1993).

In a student employment setting, reflection can take the form of many questions each student poses to himself/herself. Examples might include: "How do I feel about working so much with paperwork?"; "Am I more productive when I work in the afternoon as opposed to the morning?"; "My supervisor is extraordinarily hands-off in her management style; would I prefer a supervisor that is more engaged?"

Intuitive decision-making. Intuitive decision-making indicates a fundamental, deep understanding of the content in one's work environment. It also implies a comprehensive awareness of the past and a vision for the future. The result of such intuition is the ability to depart from routine or standard operating procedures and appropriately justify one's actions to others (Eraut, 2000). In a student employment setting, intuitive decision-making is demonstrated when employees are able to handle more difficult or complex situations without needing to consult a training manual or a supervisor before taking action.

Congruence between on-the-job tasks/experiences and coursework/career interests. Connections between experiences inside and outside the classroom are at the heart of a successful program of co-curricular involvement (Braskamp et al., 2006).

Research on student employment overwhelmingly indicates that greater learning

outcomes appear when a student's job is congruent (overlapping) with their academic

coursework or future career interests (AAHE et al., 1998; Luzzo, 1993; Pascarella &

Terenzini, 2005). In addition to enhanced career outcomes, greater job congruence can

address students' developmental needs more holistically by merging aspects of their

academic and extracurricular worlds (ACPA & NASPA, 2004). Examples of student

employment settings that might provide high levels of congruence include: lab settings,

where a student studying chemistry assists a professor of chemistry in a research project;

the student newspaper, where a journalism student can practice his skills in writing and

editing; or a marketing office, where a design student can create materials that could later

be used in a portfolio.

    While the above experiences identify unique opportunities for learning through

participation in a student employment program, it is up to student affairs professionals to

assess their students learning on-the-job by testing the validity of the above theories. In

doing so, one location on campus stands head and shoulders above others in offering

practitioner-researchers this possibility: the college union.

<center>The College Union as a Research Laboratory</center>

    According to the Association of College Unions International [ACUI], the union

is the campus "community center" and an "integral part of the educational mission of the

college" (Peters, 1997, p.18). While unions differ among institutions, by and large they

offer a range of programs and services that appeal to the many constituencies that

comprise a college campus. When the first college union in the United States opened in

1896 – Houston Hall at the University of Pennsylvania – it was meant to "serve as

common ground for all campus populations" (Peters, 1997, p.20). College unions have continued in this mold to the present day, providing important opportunities and context that will influence a student's overall undergraduate experience (Boyer, 1987) as well as his/her activities and interests post-graduation (ACE, 1949).

In many ways, the college union could not exist without student employees. The Council for the Advancement of Standards in Higher Education, an organization devoted to setting standards for learning in student affairs, expects the union to provide many and varied opportunities to meet the needs of the entire campus, such as: food services; leisure time and recreational opportunities; social, cultural and intellectual programs; continuing education opportunities; retail stores; service agencies that are responsive to campus needs; student leadership development programs and opportunities; and student development programs (CAS, 2003b).

For most institutions, these programs and services could not function without student employees. It is the students who staff the many service areas during all hours of the day and night, run the leadership programs, man the convenience store counter or replace burnt out light bulbs. It is the student staff that keeps the community center open and welcoming once the full-time professional staff goes home.

Yet the union is much more than simply a gathering place or a service provider for the campus community; it is without a doubt a place of learning. The CAS states in its 2003 guidelines that college unions "must incorporate student learning and student development" into mission statements and must also "identify relevant and desirable learning and development outcomes and provide programs and services that encourage the achievement of those outcomes" (CAS, 2003b, p.1)

Unfortunately, most college unions have not articulated what it is that students should learn through their participation in the community center, whether they are customers, participants or employees in the union's programs or services. Ward and Mitchell (1997) succinctly capture the need for change: "As an educational function . . . the college union is part of student life and is responsible, along with faculty and other institutional agents, for the out-of-class learning of students on any campus, under any circumstances" (p.64). Student employment, as a major component of most every college union, must be fully integrated into this learning mission:

> Student employment in the college union … must be viewed as a unique and fruitful opportunity to enhance students' intellectual development and create a seamless educational experience in which students can integrate in-class and out-of-class experiences" (Ward & Mitchell, 1997, p.64).

Thus, the college union is a prime example of an "active context" learning environment, as described above by Brown et al. (1989). Through its programs and services, the union authentically represents the diversity of campus life and, as such, is a microcosm of the entire institution. Student employees in college unions perform jobs that cover the broadest possible range of tasks and responsibilities. As a result, they have the opportunity to engage with the experiences described above that should promote the highest levels of learning (Devaney, 1997; Peck, 2006). As a laboratory for student learning, the college union therefore is the ideal location for studying the relationship between these employment experiences and the learning outcomes that faculty and staff strive to promote.

Summary

While everyone seems to agree that colleges and universities must develop their students into learned, responsible citizens, there are many opinions on just how to reach that goal. Understanding that students learn from co-curricular, extracurricular and traditional classroom experiences, it is incumbent upon faculty and administrators to identify, assess, and continually improve upon those experiences in order to enhance learning in key outcome areas; taxpayers, parents and legislators demanding accountability will accept no less. However, creating a transformative learning experience for today's college students is not easy. One step in improving undergraduate learning is beginning to engage students in authentic environments where they can apply their knowledge.

Research on how people learn has demonstrated that situated cognition – the learning process embedded in active context – is more meaningful and ultimately more useful than a passive, disconnected approach. Additionally, the opportunity for learners to engage in certain experiences, such as problem-solving, teamwork and reflection, as part of the learning process will enhance an individual's growth and development. The college union, acting as a community center and microcosm for an entire campus, and its student employees, engaged in a wide variety of tasks and responsibilities, together present an ideal laboratory to study and assess undergraduate learning.

While professional organizations such as NASPA, ACUI, and CAS have theorized about the ideal learning outcomes that should be fostered in today's undergraduates, there exists a lack of empirical research on this issue. In 1949, the American Council on Education argued in *The Student Personnel Point of View* that the

"principal responsibility" of student affairs administrators lie in "continuous evaluation and improvement of current programs" (p.33).

In 1996, ACPA's *Principles of Good Practice for Student Affairs* encouraged administrators to conduct regular research – asking "What are students learning from our programs and services, and how can their learning be enhanced?" – as part of the commitment to improving student learning opportunities (1996b, p.4). Also in 2004, ACPA & NASPA recommended in *Learning Reconsidered* that faculty and student affairs administrators work together to "[assess] the campus environment for specific learning experiences in each of the overall student learning categories" (p.28). Therefore the present study has taken up this challenge, focusing empirically on the relationship between certain workplace experiences and learning outcomes among student employees within a college union at an elite research university.

In addressing the central question – what on-the-job experiences at a college union relate most strongly with undergraduate learning outcomes? – this researcher has surveyed student and staff perspectives on the frequency of 13 on-the-job activities: formal training; informal training; observation of co-workers; collaboration/teamwork; peer feedback; supervisor feedback; informal interactions with one's supervisor; task repetition; problem solving; idea experimentation; reflection; intuitive decision-making; and congruence between job tasks/experiences and classroom curricula. Additionally, this survey measured perceived learning in five learning domain areas: career development; civic and community engagement; leadership; ethics and values; and responsible independence. Any relationships that emerge between the above-listed learning domains and workplace experiences will serve to improve student employment programs, and the

higher education practitioners who run them, as everyone works to better meet the needs

of tomorrow's college students.

Data Collection

This project was conducted at the Norris University Center at Northwestern University. Founded in 1851, Northwestern is a mid-size, private, Research-I institution, with approximately 8,000 undergraduate and 6,000 graduate students. The Norris University Center – a 160,000 square-foot facility that includes the campus bookstore, newspaper, meeting rooms, and food court – has served as a student union and conference center for Northwestern's Evanston campus since 1972. As of February 2007, the Norris University Center employed 164 students, approximately 10% of the 1,618 undergraduates on campus who were also working at least one job while taking classes full-time (A. Horne, personal communication, January 15, 2007).

What follows below is an explanation of the three methods of data collection utilized in this study: artifact analysis, quantitative survey data, and qualitative survey data.

Data Sources & Methods: Artifact Analyses

Job descriptions for all student employee positions at the Norris University Center (n=30) were collected (for examples see *Appendix A*). These documents were coded for words that would imply the opportunity for a student to engage with one of the 13 experiences (formal training; informal training; observation of co-workers; collaboration/teamwork; peer feedback; supervisor feedback; informal interactions with one's supervisor; task repetition; problem solving; idea experimentation; reflection; intuitive decision-making; and congruence between job tasks/experiences and classroom curricula) or five learning domain areas (career development; leadership; ethics and values; civic and community engagement; and responsible independence) covered by this

study. Through an analysis of these artifacts, it became possible to understand the extent to which the Norris Center professional staff have "set the stage" for learning.

Data Sources & Methods: Surveys

Three separate surveys constituted the remaining data collection for this study: the first was targeted at all eligible student employees at Norris University Center (n=164); the second was distributed to all professional staff members who supervise student employees (n= 15); and the third was circulated only among the students who had completed the first survey. Each survey was conducted online through Zoomerang, an internet-based survey tool.

Initial Survey: Student Self-Ratings on Workplace Experiences and Learning. Participants were recruited for an initial survey via e-mail sent over a staff listserv. All student employees actively working at the Norris Center as of January 2007 were eligible to participate (n=164). Student employees enrolled in this study were employed in a variety of departments, including: information desk, setup crew, building management, maintenance, student involvement office, bookstore, technical services, cashier's office, student organization finance office, art gallery, game room, outdoor equipment rental office, arts and crafts studio and non-credit mini-courses office.

The survey itself consisted of four sections. First, students were asked to report the frequency with which they have engaged in 13 activities or experiences while on the job at the Norris Center. These experiences, discussed in detail above, were selected based on a thorough review of the literature to uncover what job-related activities should lead to actual learning, as opposed to mere positive job performance. Students indicated

the frequency with which they engage in each experience on a 7-point Likert scale (1 = *very infrequently*, 7 = *very frequently*).

Second, students were asked to read a two-sentence description of five learning domain areas – *Career Development*; *Civic and Community Engagement*; *Leadership*; *Ethics and Values*; and *Responsible Independence* – and then to rate how much they embodied or personified the description of each domain along a 7-point Likert scale (1 = *not at all*, 7 = *completely*). The learning domain areas, discussed above, were chosen because they had been identified by several professional organizations (e.g. CAS, ACPA & NASPA) as well as Northwestern's Division of Student Affairs as important growth areas for undergraduate student populations in which our programs and services can have a positive affect. Subsequently, participants were asked to make attributions for their self-ratings in each learning domain area by examining the degree to which the same 13 workplace experiences, played a role in their development in each learning domain (1 = *very minimally*, 7 = *extremely*). For example, students rated the extent to which their *Career Development* was a result of *Informal Interactions with their Supervisor*. In addition, six additional non-workplace experiences that might have influenced student learning were rated in order to isolate those experiences students felt impacted their learning specifically in their Norris employment setting. Those six additional experiences were: other employment; extra-curricular activities (e.g. student organizations or sports); residence hall or residential college experiences; fraternity or sorority involvement; classroom experiences; and experiences prior to attending college.

Third, students completed a job satisfaction questionnaire (Eisenberger, Cummings, Armeli & Lynch, 1997). This was included to examine whether students who

reported higher levels of learning in key domain areas also reported higher levels of job satisfaction. In the final section, students completed brief demographic questions.

Second Survey: Supervisor Ratings of their Student Employees on Workplace Experiences and Learning. This survey was aimed at the full-time, professional staff members at the Norris University Center who directly supervise those student employees who had completed the first survey (n=15). Staff members recruited to participate in this study represented a wide range of experience in higher education, from a few years to as many as 25 years in the profession. Additionally, these staff members worked in a wide variety of offices, including student involvement, technical services, financial services, marketing and maintenance.

The survey itself consisted of three sections. The first section asked about the frequency with which student employees engaged in certain learning-related experiences in their jobs. In structure and content it was nearly identical to the student survey; the only differences were grammatical, in that staff members were asked to reflect on their individual students' experiences as opposed to their own. The second section asked supervisors to rate their student employees on five learning domains. It was also nearly identical to the comparable section of the student survey, however in addition to similar grammatical changes, supervisors were not asked to make attributions for the sources of their student employees' learning. The third section of this survey consisted of demographic questions. Staff members were asked to complete the same survey once for each student they directly supervise who participated in the initial survey. Due to a large grouping of students in two functional areas who report to this researcher, the student

supervisors for those areas were used as de-facto professional staff and filled out this

second survey. This substitution will be discussed in greater detail below.

Third survey: Student Qualitative Data on Workplace Learning. This survey was

conducted only with the students who completed the initial survey (n=97). In the survey

itself, participants were asked to imagine themselves in an interview for their first

professional job after graduation. The students were then prompted with two questions

asking what they believe they have learned while on the job at the Norris University

Center and to cite specific experiences that catalyzed this learning for them. Each

question asked participants to write at least two or three paragraphs in their response.

Consents secured

There were no written consent forms for this project. All surveys were

administered through Zoomerang, an internet-based survey tool, and therefore were

covered under a request for waiver of written consent approved by Northwestern's

Institutional Review Board (IRB). A brief informed consent page preceded each survey

taken as part of this study. (Full survey instruments are shown below in *Appendix B*)

Ethics considered

The primary ethical concern arose due to this researcher's status as a professional

staff member at the Norris Center. Specifically, this project necessitated surveying many

students who report to this researcher as their professional staff supervisor. Recognizing

that this might have presented a conflict of interest for the researcher, a colleague outside

the Norris Center who had no connection with this project whatsoever was employed as a

research assistant in the data collection. This colleague downloaded all data from

Zoomerang's website, matched up student and professional staff data using the names

provided by survey respondents, and assigned each random survey numbers before

forwarding the data on to the research team. As a result, the researcher was never privy to

any identifiable data obtained from any participants.

Data Results Summary

In this section, results from the artifact analysis and surveys will be described in detail.

Artifact Analysis

Before surveys were distributed, current descriptions of 30 different student employee positions at the college union were analyzed for words or concepts that related either to one of the five learning domains or one of the thirteen workplace experiences measured in this project. The purpose of this artifact analysis was to establish the extent to which the proverbial "stage" was set for a learning experience before student employees had been hired into a position. In other words, it is important to determine if certain positions may be set up to engage students in the types of experiences that might produce learning.

Every position description mentioned some form of *Task Repetition*. Position descriptions for Center Manager or Area Supervisors – higher-level jobs than Area Attendants or Assistants – mentioned *Making decisions intuitively as opposed to checking with one's supervisor* (hereafter referred to as *Intuition*) and *Idea Experimentation* more frequently, and all mentioned the requisite supervision of one's peers, a responsibility that could implicitly denote the concept of *Leadership*. Additional experiences mentioned frequently included: *Collaboration*, *Feedback from Peers* (in the form of supervision), and *Formal Training*. A few position descriptions made reference to experiences such as *Problem Solving* and competencies – organizational skills; conscientious in regard to attendance and adherence to area procedures – that could be reasonably classified as *Responsible Independence*, however these were listed in the

context of qualifications for employment as opposed to experiences or skills an applicant might develop or engage with once on-the-job. Absent from any position description were references to *Informal Training*, *Observation of co-workers* (hereafter referred to as *Observation*), *Feedback from Supervisor*, *Informal Interactions with one's Supervisor*, *Reflection*, or *Congruence between job tasks/experiences and classroom curricula* (hereafter referred to as *Congruence*). Also absent from any position description were references to *Career Development*, *Civic and Community Engagement*, and *Ethics and Values* development.

<div align="center">Survey Data Analysis</div>

Participants

    Initial Survey. Fifty-seven women and 40 men participated, a 59 percent response rate. The mean age among participants was 20 and the sample was fairly evenly spread between freshmen, sophomores and juniors (24, 31 and 32 percent, respectively) with a fewer number (13 percent) of seniors. Nearly 53 percent of the sample self-identified as white or Caucasian, 11 percent as Asian or Asian-American, 8 percent as Hispanic or Latino, 5 percent as African-American and 5 percent as other (with 18 percent declining to state their race).64 percent of survey participants are employed as Area Attendants or Assistants (entry level positions at the Norris Center). Academically, the largest group within this sample – 40 percent – reported their primary major in the Weinberg College of Arts & Sciences (WCAS) with the next largest group – 17 percent –in the School of Communication. 14 percent identified themselves as Area Supervisors and 10 percent as Center Managers; 11 percent did not identify themselves by hierarchical position. Nearly two-thirds of survey participants reported that, on average, they work between six and 10

hours per week at the Norris Center and more than a quarter reported working between

11 and 15 hours per week. (See Table 2 for a more complete listing of these descriptive

statistics.)

  Second Survey. Professional staff participants – 9 men and 8 women – represented

a wide range of responsibilities, such as activities and programming, technical services,

financial services, marketing and maintenance.. Many were relatively new student affairs

personnel while a few were veterans of 10-20 years or more.

Table 2. **Descriptive Statistics of Sample**		Distribution	M (SD)
Gender	Female	N= 57 (58.8 %)	
	Male	N=40 (41.2 %)	
Race	White	N=51 (52.6 %)	
	Asian/Asian-American	N=11 (11.3 %)	
	Hispanic/Latino	N=8 (8.2 %)	
	African-American	N=5 (5.2 %)	
	Other	N=5 (5.2 %)	
	Did not report	N=17 (17.5 %)	
Class standing	Freshman	N=23 (23.7 %)	
	Sophomore	N=30 (30.9 %)	
	Junior	N=31 (32.0 %)	
	Senior	N=13 (13.4 %)	
Academic school	WCAS	N=39 (40.2 %)	
	Communication	N=16 (16.5 %)	
	Medill	N=9 (9.3 %)	
	SESP	N=8 (8.2 %)	
	McCormick	N=7 (7.2 %)	
	Music	N=2 (2.1 %)	
	Did not report	N=16 (16.5 %)	
Position	Attendant or Assistant	N=62 (63.9 %)	
	Area Supervisor	N=14 (14.4 %)	
	Center Manager	N=10 (10.3 %)	
	Did not report	N=11 (11.3 %)	
Avg. # of hours worked/week	1 – 5	N=4 (4.1 %)	
	6 – 10	N=63 (64.9 %)	
	11 – 15	N=28 (28.9 %)	
	16 – 20	N=2 (2.1 %)	
Age			19.84 (1.32)

Third Survey. All 97 student participants in the initial survey were invited to participate in a follow-up survey a few weeks later. 37 percent of eligible respondents (n=36) participated.

Representative sample. The sample participants were generally representative of Northwestern's undergraduate racial and gender makeup, as well as academic affiliation. However the sample was less representative of total students employed part-time while enrolled full-time; this sample polled around 6% of all undergraduate students working as of January 2007 (n=1,618). (Northwestern University, 2007).

Learning Domains

First, student data on the five learning domains – *Career development*, *Civic and Community Engagement*, *Leadership*, *Ethics and Values*, and *Responsible Independence* – were subjected to a correlation analysis to identify possible relationships (see Table 3). All five domains except one demonstrated significant positive inter-correlations, ranging from r=.31 to r=.52 (p<.01). This pattern of high inter-correlation justified the creation of a composite or summary variable, which was labeled *Student Learning*. This composite is a helpful way to conceptualize the five learning domains together as a group and thus provides a reliable foundation for the remaining analyses. Likewise, the same tests were applied to staff data on the same five learning domains and all were significantly positively correlated (see Table 4) – ranging in magnitude from r=.40 to r=.61 (p<.01). Therefore a second composite variable, labeled *Staff Learning*, was created for the same purpose as the *Student Learning* composite variable. Lastly, both the *Student Learning* and *Staff Learning* composites were significantly positively correlated (r=.25, p<.05) such that a third composite variable, simply labeled *Learning*, was created.

Table 3.   **Correlation between student ratings in five learning domains**

	CareerDev	Civic	Leadership	Ethics	RI
Career Development					
Civic & Community Engagement	.32**				
Leadership	.43**	.45**			
Ethics & Values	.33**	.46**	.52**		
Responsible Independence	.31**	.18	.50**	.35**	

** p<.01

Table 4.   **Correlation between staff ratings in five learning domains**

	CareerDev	Civic	Leadership	Ethics	RI
Career Development					
Civic & Community Engagement	.47**				
Leadership	.61**	.46**			
Ethics & Values	.40**	.54**	.42**		
Responsible Independence	.40**	.44**	.59**	.52**	

** p<.01

In addition, scores on the *Learning* composite were standardized so that comparisons between high learners and low learners could be conducted. Students ranged from 2.37 standard deviations below the mean to 2.20 standard deviations above the mean. It is important to note that *Student Learning* and *Staff Learning* were not perfectly correlated, suggesting that there is less-than-perfect agreement between student employees and their staff supervisors about the degree to which students embody the ideals of learning. Specific analyses focused on these discrepancies will be discussed below. However,

given that any insights this project manages to produce about student learning while on-the-job are likely to be found somewhere in-between the student's perspective and that of their professional staff supervisors, this final composite variable is an ideal statistical representation of a "middle ground" in assessing learning. As such, it will represent the primary outcome variable used in subsequent analyses.

Descriptive statistics of this composite variable called *Learning* demonstrated a range of 2.6 – 6.6 (on a Likert scale of 1-7) with a mean of 4.76 and a standard deviation of .77. Following the same procedures as mentioned above, composite variables for all five learning domains were created and the same descriptive statistics as those applied to *Learning* were compiled. (See Table 5 for all descriptive statistics). Unless otherwise stated, each analysis that follows utilizes these composite variables.

Table 5. **Descriptive statistics of *Learning* composite and five learning domain composites**

	Mean	SD	Range
Learning	4.76	0.77	2.60-6.60
Career Development	4.40	1.09	1.50-6.50
Civic & Community Engagement	4.43	1.00	2.00-7.00
Leadership	4.72	1.04	2.00-7.00
Ethics & Values	5.20	0.87	2.50-7.00
Responsible Independence	5.11	0.91	2.50-7.00

Overall, both students and staff reported that the current group of student employees is above average in each learning domain area; after averaging the student and staff ratings for each learning domain, the mean score ranged from 4.43 to 5.20 on a 7-point scale. In beginning to explore whether certain populations within the larger student employee pool reported higher levels of learning, a correlation analysis demonstrated that

higher Job Position – Center Manager or Area Supervisor – was significantly positively

correlated with higher levels of learning in *Civic and Community Engagement*, *Ethics*

and Values, *Responsible Independence*, and overall *Learning* (see Table 6). Additionally,

a significant relationship was established between higher class standing and higher levels

of *Responsible Independence* (see Table 6). When viewed overall, students in all position

types reported high levels of learning – greater than 4.0 on a 7-point scale – although the

data appear to show that supervisory positions correspond with higher levels of *Learning*.

Figure 1 demonstrates the differences in each of the learning domains and in *Learning* for

students across position type.

Table 6.   **Correlation between demographic variables and *Learning* composite and five learning domain composites**

	Gender[a]	Age	Class standing[b]	Academic school[c]	Race[d]	Position[e]	Avg. # of hours worked per week
Learning	.14	.05	.15	-.17	-.13	.30**	.09
Career Development	.13	.05	.14	-.19	-.22	.17	-.02
Civic & Community Engagement	.10	-.03	.00	.04	-.09	.26*	.10
Leadership	.03	.07	.10	-.18	-.08	.20	.10
Ethics & Values	.23*	.04	.15	-.03	.02	.24*	.04
Responsible Independence	.09	.13	.22*	-.18	-.16	.27*	.17

* $p<.05$, ** $p<.01$
Note: [a]1=male, 2=female; [b]1=freshman, 2=sophomore, 3=junior, 4=senior; [c] 1=WCAS, 2=SESP, 3=Medill, 4=McCormick, 5=Music, 6=Communication; [d]1=White, 2=African-American, 3=Asian/Asian-American, 4=Hispanic/Latino, 5=Other; [e]1=Attendant/Assistant, 2=Area Supervisor, 3=Center Manager

Learning by Job Position

Legend:
- Attendant or Assistant
- Area Supervisor
- Center Manager

X-axis (Learning Domain): LEARNING, Career Development, Civic and Community Engagement, Leadership, Ethics and Values, Responsible Independence

Figure 1. Learning composite and five learning domains across position type
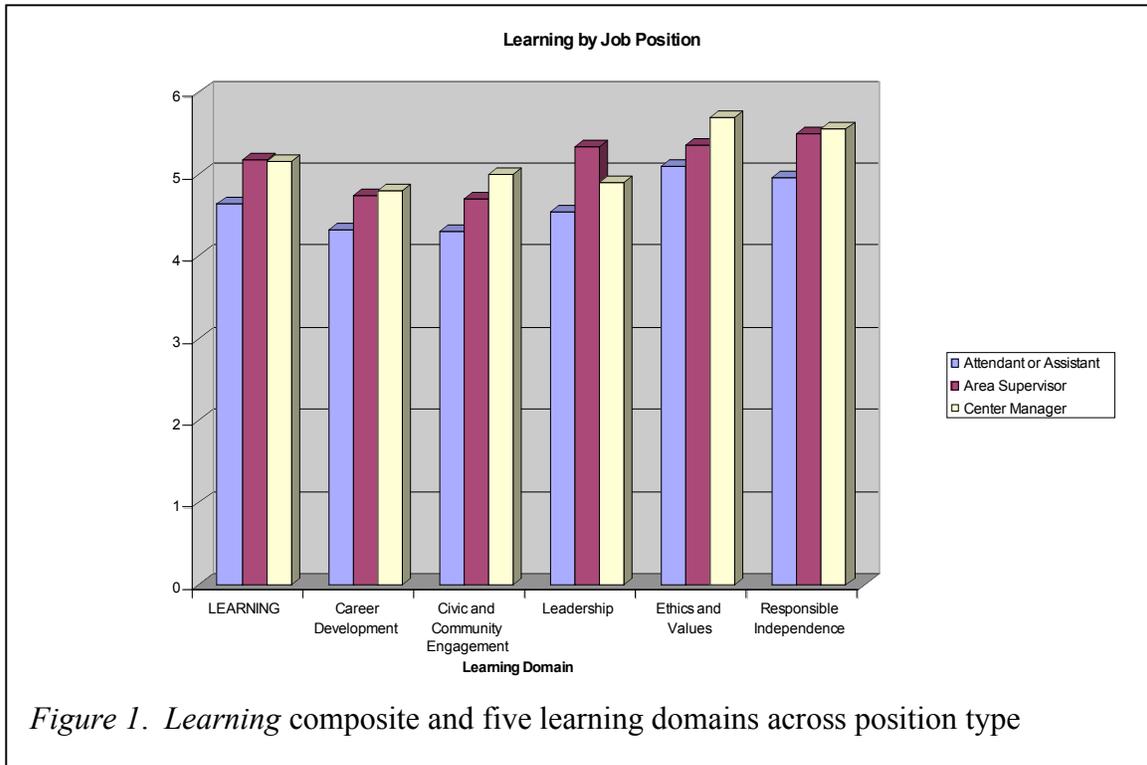
Workplace Experiences

Descriptive statistics were compiled for student and staff composite reported frequencies of 13 on-the-job experiences. The highest mean frequency (n=5.40) was in *Task Repetition*, while the lowest mean frequency (n=2.98) was in *Congruence*. (See Table 7 for full descriptive statistics.)

A correlation analysis was conducted to uncover whether certain demographic groups reported higher frequencies of any of the 13 on-the-job experiences. Certain results were noteworthy and will be described in detail here (see Table 8 for complete correlation matrix). Age and higher class standing were both significantly negatively correlated with *Observation* and significantly positively correlated with *Reflection*. Average number of hours worked per week had a significant negative relationship with *Formal Training* and *Observation* and a significant positive relationship with *Reflection*.

Table 7. **Descriptive statistics of composite 13 workplace experiences**

	Mean	SD	Range
Formal Training	3.21	0.90	1.00-6.00
Informal Training	4.37	1.05	1.50-6.50
Observation	4.14	1.35	2.00-7.00
Collaboration	5.07	1.25	2.50-7.00
Feedback from Peers	3.89	1.18	1.50-7.00
Feedback from Supervisor	4.59	1.12	1.50-7.00
Informal Interaction with Supervisor	4.66	1.23	2.00-7.00
Task Repetition	5.40	1.01	3.00-7.00
Problem Solving	4.84	1.16	2.00-7.00
Idea Experimentation	4.37	1.27	1.50-7.00
Reflection	4.05	1.18	1.50-6.50
Intuition	4.45	1.28	2.00-7.00
Congruence	2.98	1.08	1.00-5.50

Additionally, higher positions were significantly positively correlated with *Collaboration*, *Feedback from Supervisor*, *Task Repetition*, *Problem Solving*, *Reflection* and *Intuition* and significantly negatively correlated with *Observation*. Therefore, these findings indicate that students who worked longer hours, had greater responsibilities, or simply had been working in this environment for more years than their peers spent much less time observing their peers or supervisor demonstrate or model aspects of their job. Rather, these students spent much more time thinking, working and reflecting on their own.

When viewing overall ratings for frequency of on-the-job experiences broken down by position, it appears that Center Managers report much higher levels of *Collaboration* and much lower levels of *Observation* than Area Supervisors or Attendants/Assistants (see Figure 2). Certain experiences, such as *Problem Solving*, *Reflection*, and *Intuition* seemed to advance in frequency with each step up to a higher

position ranking (see Figure 2). Additionally, all three position groupings reported

relatively low levels of *Formal Training* and *Congruence* (see Figure 2).

Table 8. **Correlation between demographic variables and 13 workplace experiences**

	Gender[a]	Age	Class standing[b]	Academic school[c]	Race[d]	Position[e]	Avg. # of hours worked per week
Formal Training	-.05	-.21*	-.19	.15	.05	-.18	-.32**
Informal Training	-.22	-.02	-.08	-.04	-.06	.03	-.10
Observation	.04	-.32**	-.34**	-.05	.16	-.30**	-.21*
Collaboration	-.16	-.12	-.13	-.27*	.09	.24*	.06
Feedback from Peers	.04	-.12	-.12	-.15	.20	-.20	-.18
Feedback from Supervisor	.07	.13	.20*	-.10	-.02	.23*	.10
Informal Interaction with Supervisor	-.03	.15	.18	-.11	-.01	.05	.04
Task Repetition	.04	.03	.07	-.09	-.02	.29**	.10
Problem Solving	-.02	.08	.20	-.26*	.02	.45**	.17
Idea Experimentation	-.11	.10	.14	-.18	.10	.12	.05
Reflection	.00	.22*	.26*	-.03	-.04	.39**	.08
Intuition	-.15	.19	.20	-.15	-.17	.46**	.20*
Congruence	.11	-.02	.00	.03	-.05	.17	-.11

* $p<.05$, ** $p<.01$
Note: [a]1=male, 2=female; [b]1=freshman, 2=sophomore, 3=junior, 4=senior; [c] 1=WCAS, 2=SESP, 3=Medill, 4=McCormick, 5=Music, 6=Communication; [d]1=White, 2=African-American, 3=Asian/Asian-American, 4=Hispanic/Latino, 5=Other; [e]1=Attendant/Assistant, 2=Area Supervisor, 3=Center Manager

On-the-job Experiences by Position
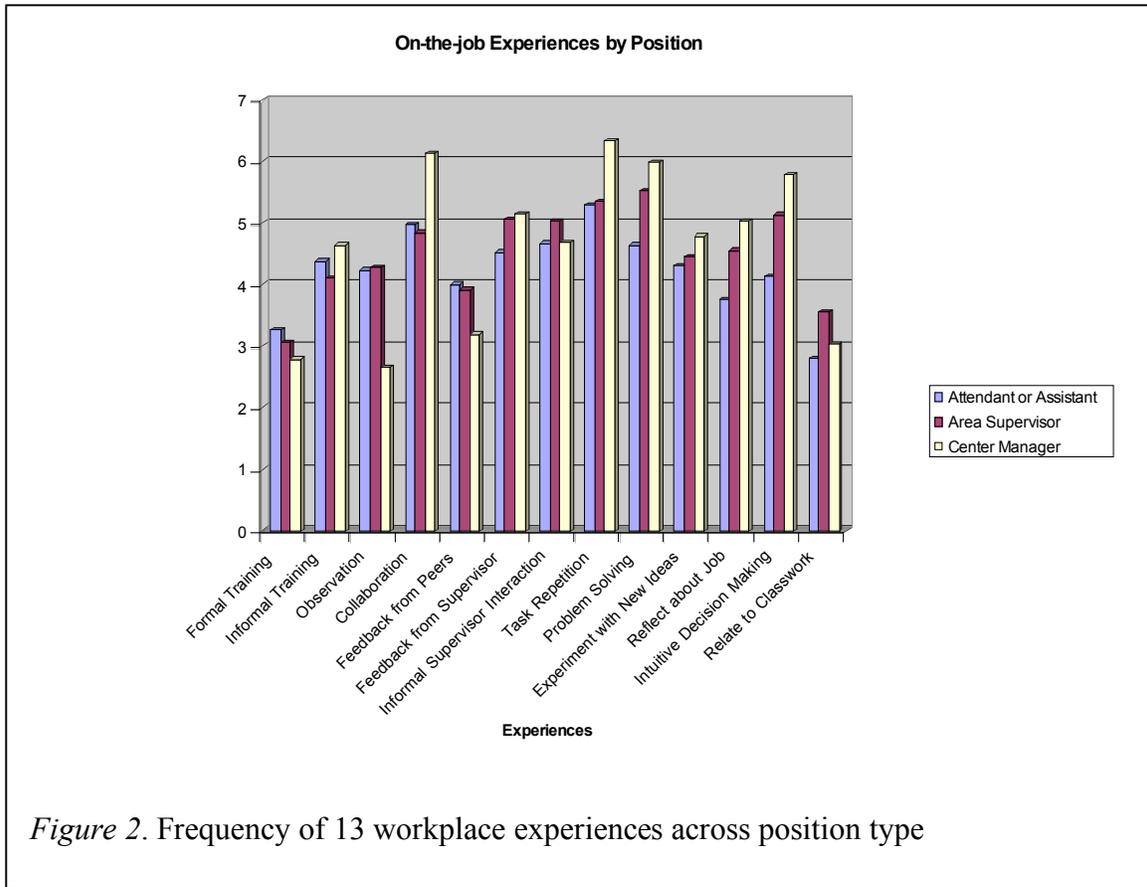
Figure 2. Frequency of 13 workplace experiences across position type

Relationship between Learning and Workplace Experiences. The primary focus of this study is to determine which on-the-job experiences relate most strongly to higher levels of undergraduate learning outcomes. The principal tests of this question – where *Learning*, followed by all five learning domains, were correlated with all 13 experiences – are reported here and in Table 9.

Twelve experiences (all except *Formal Training*) were significantly positively correlated with *Learning*. Ten experiences (all except *Formal Training, Observation*, and *Task Repetition*) were significantly positively correlated with *Career Development*. Ten experiences (all except *Formal Training, Informal Training*, and *Observation*) were also significantly positively correlated with *Civic and Community Engagement*. In addition, 10 experiences (all except *Formal Training, Informal Interaction with one's Supervisor*,

and *Task Repetition*) were significantly positively correlated with *Leadership*. Six

experiences (*Collaboration*, *Feedback from Supervisor*, *Problem Solving*, *Idea*

Experimentation, *Reflection*, and *Intuition*) were significantly positively correlated with

Ethics and Values. Six experiences (*Collaboration*, *Feedback from Supervisor*, *Task*

Repetition, *Problem Solving*, *Reflection*, and *Intuition*) were significantly positively

correlated with *Responsible Independence*.

Table 9. **Correlation between *Learning* composite and five learning domain composites and 13 workplace experiences**

	Learning	Career Development	Civic & Community Engagement	Leadership	Ethics & Values	Responsible Independence
Formal Training	.09	.05	.00	.16	.06	.05
Informal Training	.26*	.33**	.16	.27*	.14	.08
Observation	.25*	.15	.06	.28**	.13	.20
Collaboration	.46**	.45**	.32**	.37**	.23*	.38**
Feedback from Peers	.38**	.41**	.22*	.33**	.19	.15
Feedback from Supervisor	.42**	.36**	.25*	.35**	.32**	.27**
Informal Interaction with Supervisor	.27*	.26*	.27**	.15	.18	.20
Task Repetition	.23*	.20	.23*	.12	.17	.24*
Problem Solving	.68**	.53**	.43**	.51**	.51**	.46**
Idea Experimentation	.48**	.45**	.34**	.44**	.36**	.06
Reflection	.41**	.26*	.30**	.32**	.33**	.24*
Intuition	.61**	.39**	.46**	.51**	.40**	.51**
Congruence	.44**	.45**	.32**	.42**	.18	.16

* p<.05, ** p<.01

Magnitude of Correlation with Learning
Signicant relationships above r=0.23

Figure 3. Magnitude of correlations between *Learning* composite and 13 workplace experiences across participants
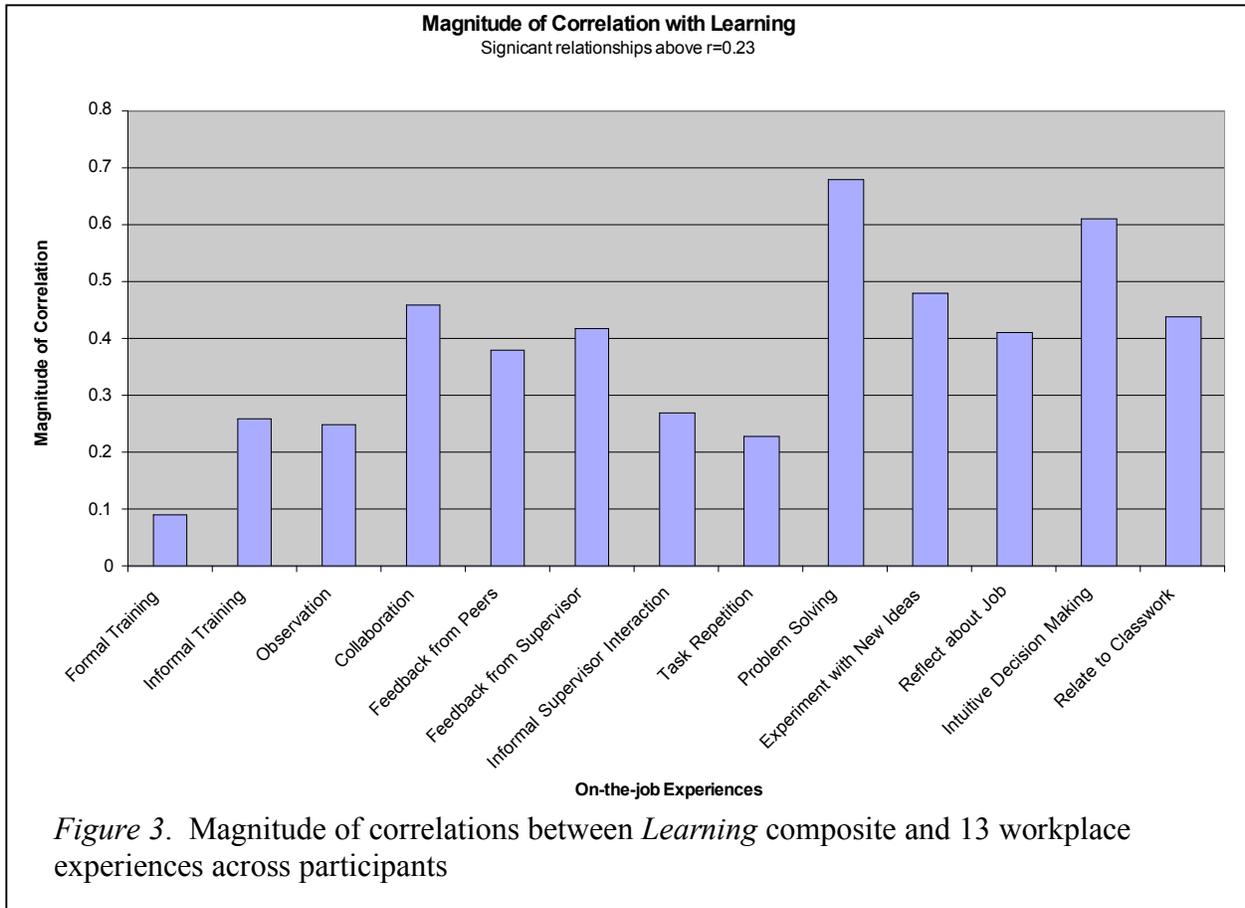
When viewed across participants, *Problem Solving* appears to have the highest magnitude of correlation with *Learning*, followed by *Intuition* (see Figure 3). Once again, *Formal Training* is the only experience that does not have any significantly positive correlation with one of the learning domains or *Learning* as a whole (see Figure 3).

Control Experiences

Having established that many of these experiences have a significant relationship with the five learning domains and with the big-picture construct labeled *Learning*, it is important to examine whether other experiences that students are engaging with outside of their employment at Norris might also account for the learning and growth in these same areas. As mentioned above, the initial student survey prompted participants with six

major non-Norris-related experiences that might impact undergraduate learning. These

experiences were: *Employment outside of Norris* (hereafter referred to as *Other*

Employment); *Extracurricular activities, such as sports or student organizations*

(hereafter referred to as *Extracurricular*), *Residential Hall or Residential College*

experiences (hereafter referred to as *ResHall*), *Fraternity or Sorority involvement*

(hereafter referred to as *Greek*), *Experiences in the classroom setting* (hereafter referred

to as *Classroom*), and *Experiences prior to their enrollment at Northwestern* (hereafter

referred to as *PreCollege*). In addition, given the potential for job satisfaction to impact

students' perceptions of their learning, a short four-question measure of job satisfaction

was included (Eisenberger et al., 1997). As it turned out, job satisfaction was not

significantly correlated with *Learning*. Therefore, together these six experiences plus job

satisfaction (hereafter labeled *control experiences*) were used to assess the extent to

which non-Norris experiences contributed to undergraduate learning in the five domain

areas.

     Relationship between Learning and Control Experiences. Several relationships

between control experiences and learning domains were noteworthy and will be

discussed here (see Table 10 for complete correlation matrix). Four control experiences

(*Other Employment*, *Extracurricular*, *Greek,* and *Classroom*) had a significant positive

correlation with *Career Development*. One control experience (*Extracurricular*) had a

significant positive relationship with *Civic and Community Engagement*. Five control

experiences (*Other Employment*, *Extracurricular*, *Greek, Classroom*, and *PreCollege*)

were significantly, positively correlated with *Leadership*. Four control experiences

(*Extracurricular*, *Greek, Classroom*, and *PreCollege*) had a significant positive

relationship with *Ethics and Values*. Three experiences (*Extracurricular*, *Greek,* and

PreCollege) had a significant positive relationship with *Responsible Independence*. These

findings indicate that this group of students believes many experiences outside of their

job are contributing to growth in important learning domains, particularly their

Extracurricular experiences (e.g. student organizations and sports teams), the only

control variable to have a significant positive relationship with all five learning domains.

The data also indicates that neither *ResHall* experiences nor *Job Satisfaction* had a

significant relationship with any learning domain, both surprising findings.

Table 10. **Correlation between five learning domain composites and control experiences**

	Career Development	Civic & Community Engagement	Leadership	Ethics & Values	Responsible Independence
Job Satisfaction	.00	.02	-.02	-.09	.00
Other Employment	.20*	.07	.23*	.17	.11
Extracurricular	.33**	.37**	.45**	.38**	.31**
ResHall	.15	.06	.13	.09	.16
Greek	.32**	.16	.35**	.28**	.28**
Classroom	.26*	.16	.29**	.25*	.19
PreCollege	.10	.16	.35**	.25*	.24*

* p<.05, ** p<.01

Theoretically, since at least some of these control experiences seem to be

positively correlated with the five learning domains, it is possible that they may account

for some of the positive impact otherwise attributed to their experience working at the

Norris Center. Therefore it is necessary to run some partial-correlational analyses. Partial

correlations were run to establish which – if any – of the 13 on-the-job experiences still

had a significant relationship to the five learning domains, controlling for the six control

experiences plus job satisfaction.

Table 11. **Partial correlations between five learning domain composites and 13 workplace experiences controlling for six control variables plus job satisfaction**

	Career Development	Civic & Community Engagement	Leadership	Ethics & Values	Responsible Independence
Formal Training	.01	-.09	.06	-.05	-.07
Informal Training	.35**	.17	.24*	.03	.07
Observation	.17	.03	.13	.07	.17
Collaboration	.42**	.31**	.35**	.19	.45**
Feedback from Peers	.37**	.16	.21	.06	.07
Feedback from Supervisor	.32**	.17	.27*	.19	.18
Informal Interaction with Supervisor	.27*	.24*	.05	.12	.17
Task Repetition	.10	.23*	.06	.12	.23*
Problem Solving	.49**	.40**	.49**	.49**	.44**
Idea Experimentation	.43**	.26*	.36**	.27*	.00
Reflection	.25*	.27*	.27*	.22	.20
Intuition	.40**	.44**	.52**	.41**	.53**
Congruence	.50**	.28*	.36**	.08	.15

* p<.05, ** p<.01

Overall, the results of these analyses demonstrated that the relationship between some of the 13 experiences and five learning domains became non-significant when the control experiences were factored into the equation. This indicates that these students are learning within these five domain areas outside of this particular work environment. Complete partial correlation analyses are reported in Table 11, but a summary of certain findings will be explained here. The relationship between workplace experiences and *Career Development* was not influenced by the control experiences. Eight of the 10 workplace experiences previously identified continued to show a significant, positive

relationship with *Civic and Community Engagement* (*Feedback from Peers* and *Feedback from Supervisor* were no longer significantly related). Eight of the 10 workplace experiences previously identified continued to show a significant, positive relationship with *Leadership* (*Observation* and *Feedback from Peers* were no longer significantly related). Three of six experiences previously identified continued to show a significant, positive relationship with *Ethics and Values* (*Collaboration*, *Feedback from Supervisor* and *Reflection* were no longer significantly related). Four of six experiences previously identified continued to show a significant, positive relationship with *Responsible Independence* (*Feedback from Supervisor* and *Reflection* were no longer significantly related). These findings suggest that, for this sample, students were receiving meaningful levels of feedback from their peers or their supervisor, were presented with opportunities for teamwork or peer observation, and had opportunities for reflection outside of their jobs at the Norris Center, and these "outside" experiences also contributed to learning in some of the same ways.

Agreement between Students and Professional Staff

Two final sets of statistical analysis (see Tables 12 and 13) were run to determine the extent to which students and their professional staff supervisors agreed on how much students embodied each of the five learning domains and the overall *Learning* category. Significant, positive relationships were uncovered in *Civic and Community Engagement*, *Leadership*, and overall *Learning* (see Table 12).

Table 12. **Correlation between student ratings and staff ratings of *Learning* composite and five learning domains**

	Correlation
Learning	.25*
Career Development	.08
Civic & Community Engagement	.25*
Leadership	.24*
Ethics & Values	.11
Responsible Independence	.12

* p<.05

Table 13. **Correlation between student ratings and staff ratings of 13 workplace experiences**

	Correlation
Formal Training	.06
Informal Training	.10
Observation	.26*
Collaboration	.24*
Feedback from Peers	.21*
Feedback from Supervisor	.12
Informal Interaction with Supervisor	.27**
Task Repetition	.09
Problem Solving	.28**
Idea Experimentation	.33**
Reflection	.21*
Intuition	.35**
Congruence	.19

* p<.05, ** p<.01

When viewed across participants, the data show that students reported higher levels of

learning in all five learning domains, with the largest discrepancy in *Leadership* and the

smallest in *Career Development* (see Figure 4). In rating frequency of experiences,

student and staff ratings were significantly, positively correlated in eight out of 13 areas:

Observation, *Collaboration*, *Feedback from Peers*, *Informal Interaction with one's*

Supervisor, *Problem Solving*, *Idea Experimentation*, *Reflection*, and *Intuition* (see Table

13). And when viewed across participants, the data show that students and staff are
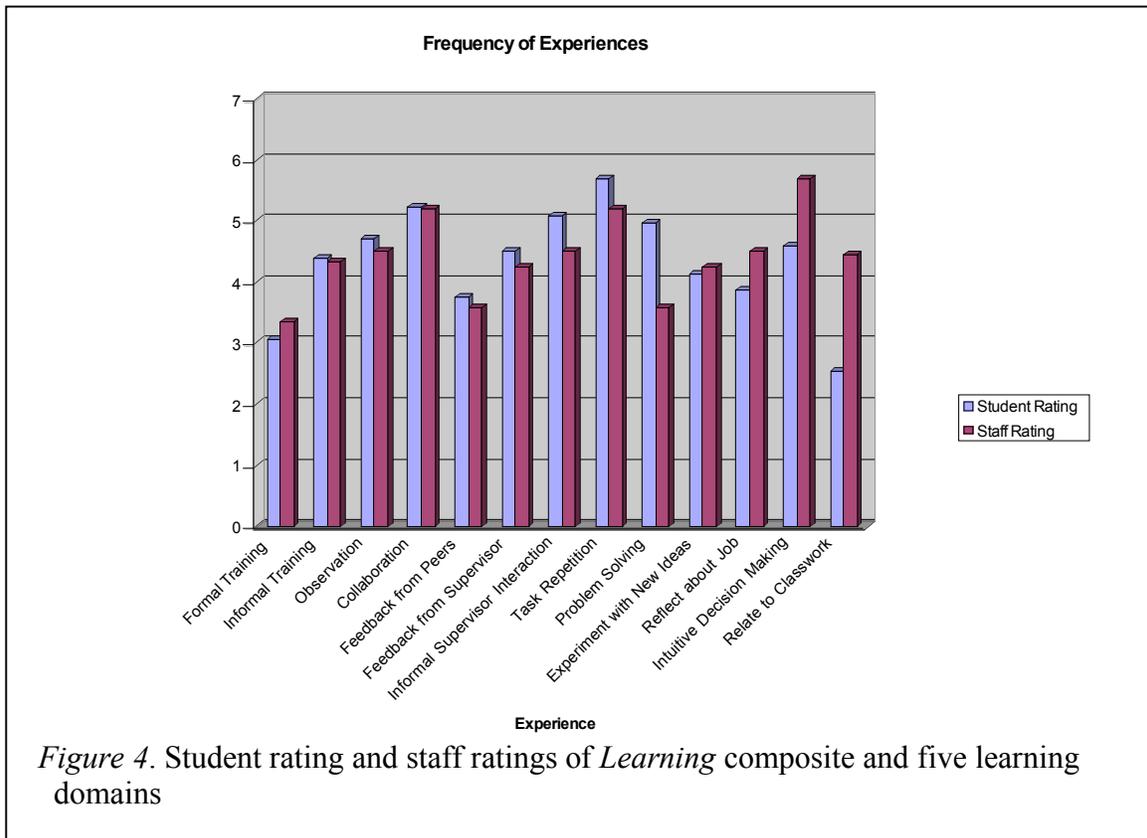
Figure 4. Student rating and staff ratings of *Learning* composite and five learning
   domains

generally in agreement, with students reporting slightly higher frequencies in eight

workplace experience categories (see Figure 5). The largest discrepancy appears to be

that staff members as a whole reported a much higher frequency rating on *Congruence*

than students reported.

Qualitative Perspectives

Many of the above quantitative survey findings were validated by the qualitative

survey data. Certain learning outcomes resonated across the sample, including improved

skill sets in: communication; leadership; teamwork; time management; responsibility;

and customer service. In many examples, students drew concrete connections between
this growth and their employment at the Norris Center.

Figure 5. Student rating and staff ratings of 13 workplace experiences
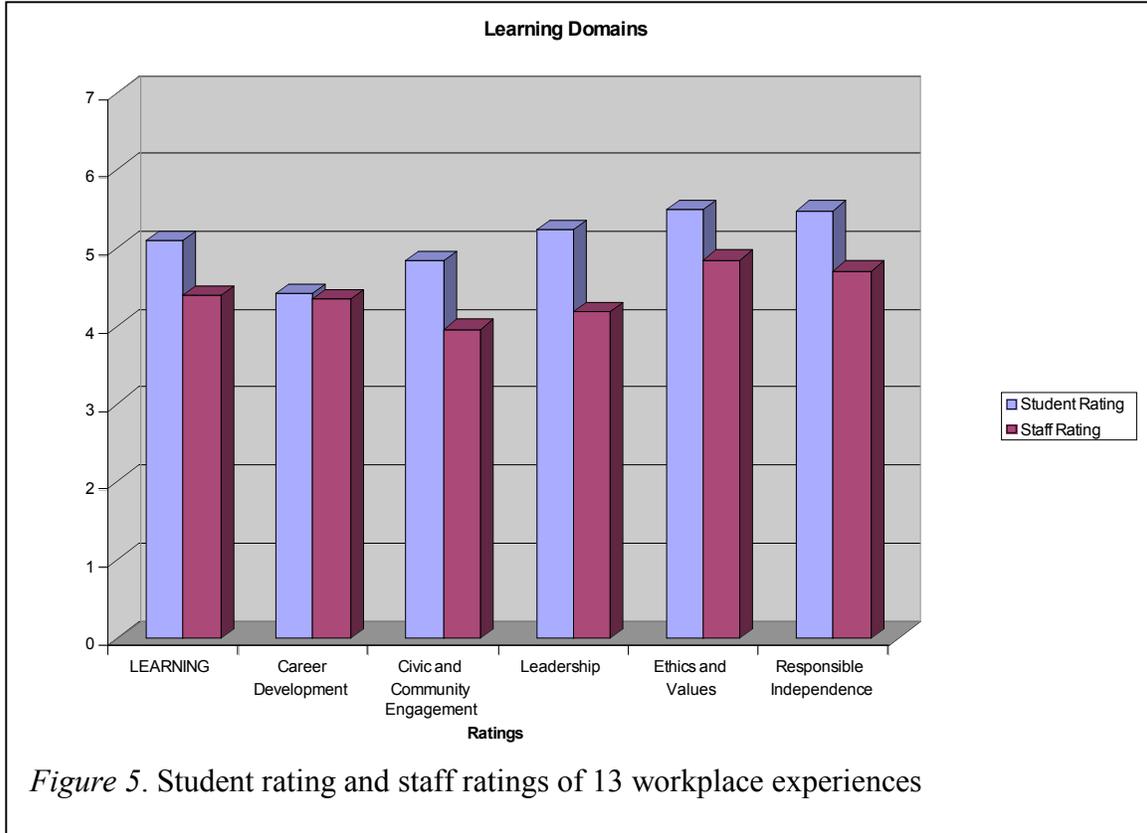
Learning Domains. For example, student #26 reported about learning life-
management skills that would fall under the domain of *Responsible Independence*:

I also feel that I have gained useful organizational skills from my
employment. Managing a staff of employees, keeping
communication with outside contacts, and having a working
relationship with my supervisor while juggling a class schedule has
forced me to carefully keep track of time and activities in an orderly
manner.

Student #6 commented about learning what it means to contribute to the overall campus community, demonstrating an awareness of *Civic and Community Engagement*: "I feel like I have been more directly involved with the university in that what we do at Norris has a positive effect on the overall experience of NU." And one student, #29, wrote extensively about learning various skills that would fall within the *Leadership* domain:

> I have learned to be more of a self-starter in the sense that if I don't
>
> have work assigned – I have learned to take the initiative . . . I have
>
> learned to give and receive constructive criticism. . . . I have also
>
> learned a lot in the area of professionalism as well as getting projects
>
> to move forward.

Workplace Experiences. Student participants also cited many on-the-job experiences that contributed to their learning, however some were mentioned more frequently, including: observing and collaborating with peers and professional staff; interacting with varied clients; committing errors or mistakes in judgment; encountering difficult or frustrating situations; and taking initiative in problem-solving. For example, student #1 wrote about an interaction from the perspective of being observed by a co-worker:

> I also feel like I have had the opportunity to demonstrate my
>
> knowledge of the job when interacting with new-hires. Both at the
>
> beginning of the school year and throughout the entire year, I have
>
> been actively involved with teaching and helping new employees to
>
> better their on-the-job performance.

Student #28 depicted the necessary skill of *Intuition* (intuitive decision-making) as embedded within a cycle of learning while on-the-job:

> Well, I have had several high-pressure situations in terms of angry
>
> customers, disrespectful customers, or medical emergencies
>
> involving clients. It gave me the opportunity to respond with my gut,
>
> see how that was not optimal and could be improved, and improve
>
> on it.

And student #20 wrote about collaborative teamwork experiences that led directly to learning in the domain of *Leadership*: "I have learned to work in a team environment, doing things such as planning and problem solving. Doing so has also given me leadership experience and made me realize how much I enjoy working in a team."

Differences in Learning by Position: Underscoring the quantitative data above, more intense learning may be occurring among higher-level positions (center managers and area supervisors) than among lower-level positions (area attendants or assistants). Student #32 echoed this finding:

> Day to day answering of questions, and taking initiative to maintain
>
> the smoothness of building operations. . . . is important as a
>
> supervisor because with the regular employees they tend to have a
>
> group mentality that some one else will be accountable, so it is up to
>
> the supervisor to make sure this doesn't keep things from getting
>
> done.

Student Employment as a Uniquely Situated Context. Additionally, some of the above quantitative data describe learning that occurs specifically after excluding

classroom activities as one of several control experiences. Student #32 explained why this might be so:

> [Communication skills, teamwork, and leadership] have come mainly from day to day interaction with peers that is different from my interactions I have through my involvement in classes and activities. Having people look to you for answers and being accountable for things which go on in Norris are what makes these interactions different.

The data collected as part of this study – quantitative, qualitative and artifact – paints a clear picture of learning within desired domain areas. It also describes students engaging in certain concrete experiences while engaging in part-time employment at college. Finally, the data suggest some interesting connections and relationships between these experiences and student learning, and comments on the validity of some of the research outlined above in the literature review. The most interesting of these findings will be discussed in further detail below.

Data Interpretation

Learning

Survey data indicate that learning is happening in the workplace across all five domain areas covered by this project. Average scores in each domain were well above the theoretical median, and the average composite *Learning* score – the average of student and staff ratings – was 4.76, also well above the theoretical median (3.5 on a 7-point scale). The data also show that – while most demographic categories have little to no impact on learning – students who hold positions with greater responsibility, namely as center manager or area supervisor, tend to report higher levels of learning.

This finding is echoed in the qualitative data. As part of the employment context, students mentioned having learned and engaged skills in areas of communication, time management, responsibility, flexibility, initiative, leadership, teamwork and problem solving. This data support theories from a wide range of authors, including Casella and Brougham's (1995) study on workplace behaviors valued by potential employers, Kincaid's (1996) writings on student employment as a valued and necessary part of the college curriculum, and Pascarella & Terenzini's (2005) research demonstrating that part-time employment can improve persistence and overall satisfaction with college.

However, these findings stand in stark contrast to many of the job descriptions studied as part of the artifact analysis, except for some passing references to skills that could reasonably be interpreted as *Responsible Independence*. In spite of this discrepancy, students and staff members did report concrete gains in all five learning domain areas and attributed them – at least in part – to their experiences while on the job.

Workplace Experiences

In terms of the measured workplace experiences, quantitative survey data indicate

that each of the 13 experiences identified in the literature as producing high levels of

learning is in fact occurring on-the-job at the Norris Center. Only two experiences –

Formal Training and *Congruence* between on-the-job experiences and academic

curricula – had a mean rating that fell below average (3.21 and 2.98, respectively, on a 7-

point scale). *Formal Training* was the only experience that did not have a statistically

significant correlation with any single learning domain. *Task Repetition* and

Collaboration had the highest mean scores (5.40 and 5.07, respectively, on a 7-point

scale), indicating that these experiences were seen as the most prevalent across students

and positions. These findings overwhelmingly validate the college union as a place of

learning, an integral part of the educational mission of an institution as described by

Ward and Mitchell (1997), in their work on the college union as one facet of the

intellectual life at a university, and by the Council for the Advancement of Standards

(2003b), in their mandate that the model college union supports and funds programs

which enhance the type student learning outlined by this study.

While most demographic characteristics did not correlate with reported

frequencies of certain experiences, students further along in their schooling, students with

higher positions, and students who worked more hours per week tended to have reported

higher levels of *Collaboration*, *Problem Solving*, *Task Repetition*, *Reflection* and

Intuition and lower levels of *Observation*. These findings seems intuitively correct;

students who are given greater responsibility, spend more time working, or have spent

more years on the job than their peers are able to engage in more complex tasks or assignments independently without observing their peers perform similar tasks first. Of course it is also interesting to note that older students also had higher levels of *Reflection*, possibly due to psychological maturation over time. Additionally, high levels of *Task Repetition* among this same group indicate that, despite obtaining positions with greater responsibility or autonomy, these individuals still frequently repeat many of the same job activities just as they had done perhaps years earlier.

The job description analysis confirms these findings as well. Most descriptions were straightforward listings of the many tasks a student would engage in or be responsible for once hired. However those descriptions that outline positions with greater responsibility – such as area supervisors – call attention to opportunities for collaboration, intuitive decision-making, or problem solving. It should be noted, however, that job descriptions of this type are in the minority.

Student impressions from the qualitative data clearly support the quantitative findings as well as much of the current literature on learning. As part of the employment context, students mentioned having engaged with experiences that include working as a team, training, overcoming difficult or stressful situations, being organized, working within deadlines, making decisions independently and assisting or teaching peers and new-hires. Many comments evoked Vygotsky's (1978) theory of proximal development, where students were coached (or "scaffolded," in Vygotsky's terms) by peers or professional staff colleagues as they eventually overcame progressively more difficult tasks. In certain situations, the students themselves were the coaches, teaching younger or less experienced peers how to succeed on the job.

The sheer number of qualitative comments on teamwork – its opportunities, its importance, how a job prepares one to be part of a team – recalls Resnick's (1987) appeal for greater collaborative activities in primary and secondary schools. It also echoes the findings of Howe & Strauss (2003) in their descriptions of the current Millenial generation, specifically their predilection for engaging teamwork and cooperative skills – with friends, with parents, and with societal structures – on the road toward success and personal fulfillment. While this study cannot ascertain whether opportunities in prior schooling or generational characteristics regarding teamwork and collaboration may have played a contributory role in these findings, it should be noted that even after factoring in seven control variables – one of which is experience prior to college – *Collaboration* remained significantly related to learning in four out of five domain areas.

Relationships between Learning and Experiences

Primary Hypothesis

Perhaps most significantly, the primary hypothesis of the present study was supported: 12 out of 13 workplace experiences were significantly correlated with the overall composite measure of *Learning*. *Problem Solving* and *Intuition* had the greatest magnitude of correlation with *Learning* (.68 and .61, respectively).

Key Learning Domains are Impacted through Student Employment

The *Career Development* domain was significantly positively correlated with 10 of those 12 workplace experiences. The finding that two experiences – *Observation* and *Task Repetition* – were not significantly related validates the perspective from the literature that *Career Development* is a process unique to each individual, consisting of a series of progressive steps that ends with a personalized career path (e.g., CAS, 2003a;

Chickering & Reisser, 1993; Erikson, 1980). Surprisingly, no student specifically

mentioned career growth in their qualitative responses. Given the strong correlation

found in the quantitative data, it seems that connections between student employment and

career development may not be explicitly stated, and yet a positive impact is being

noticed, perhaps implicitly, by the students and the staff. For example, student #12

highlighted the connections between the student employment context and those outside

the collegiate gates: "Working … and collaborating with various offices in Norris, I feel

like I have learned interpersonal skills crucial to any office atmosphere."

The domain of *Civic and Community Engagement* was also significantly

positively correlated with 10 workplace experiences. One of these – *Task Repetition* –

was significantly related only with this domain and one other (*Responsible*

Independence), demonstrating that in order to become meaningfully involved in the

university community and society at large, one must continually attend meetings, vote,

regularly read the newspaper, or engage in some other activity on a repeated basis that

deepens one's commitment to a particular institution. This finding echoes much of the

current literature on engagement, from Astin's (1984) theory that greater involvement in

the larger campus community leads to greater student learning and satisfaction, to ACPA

& NASPA's (2004) call for engaging students across an institution to better develop the

next generation of responsible citizens. In one example of this finding from the

qualitative survey, student #34 wrote "I have learned valuable networking skills and have

learned about different campus community and greater community resources,"

demonstrating a deft understanding that, in an inter-dependent society, one's success may

hinge on the ability to understand and connect with others in the context of the surrounding community.

The *Leadership* domain was also significantly positively correlated with 10 workplace experiences. One of these – *Observation* – is unique in that it is only significantly correlated with this domain. This finding underscores the fact that one of the most effective methods for learning how to set a positive example that others can follow is first to observe other leaders in action (ACPA & NASPA, 2004).

The domain of *Ethics and Values* development was significantly positively correlated with six workplace experiences. One of its strongest correlates is with *Problem Solving*, which demonstrates a perspective found in the CAS (2003a) guidelines: students first articulate a personalized values system and then demonstrate their principles through behavioral choices coherent with those beliefs. Solving a complicated problem provides the ideal circumstance for such choices to be made, and therefore a setting where one's values system can emerge. The qualitative data underscore the connection between workplace experiences and *Ethics and Values* development. Student #33 wrote "I've also come to learn more about myself as working at Norris has helped me to realize what is important for me or what really matters for me in a work setting." This student's perspective recalls Baxter Magolda's (1999) writings on self-authorship, in that reflection upon the work experience has helped this student "realize" what is important and, simultaneously, implicitly, what is not.

Finally, the *Responsible Independence* domain was significantly positively correlated with six workplace experiences. Its strongest correlate – *Intuitive decision making* – demonstrates that effective communication skills and managing of one's time

are both abilities sharpened through independent thinking, planning and behavior in a workplace setting. Additionally, this relationship echoes the fundamental nature of this domain as identified in the literature; skills identified with *Responsible Independence* are necessary for a productive life after graduation and therefore occupy an important part of the college curriculum and co-curriculum (ACPA & NASPA, 2004; CAS, 2003a; Pascarella & Terenzini, 2005; Student Learning Outcomes Project, 2005).

Control Experiences Provide Meaningful Co-Curricular Activities and Settings

Recognizing that there are many other significant major experiences shared by a majority of undergraduates, this study included six as control experiences to gauge their impact on student learning. These control experiences were: employment outside of Norris; extracurricular involvement (including student organizations and sports teams); residence hall or residential college activities; fraternity or sorority involvement; experiences in classroom settings; and experiences prior to enrolling at Northwestern. After controlling for these non-Norris-related activities, most of the workplace experiences retained their significant relationships with *Career Development, Civic and Community Engagement,* and *Leadership*, while a smaller number retained their significance with *Ethics and Values* and *Responsible Independence*. These findings also held constant when job satisfaction was included as a seventh control variable. It is important to note that five of the six control variables – all except residence hall/residential college activities – significantly correlated with the learning domains when subjected to independent analyses. This suggests that – as Braskamp et al. (2006) described – students make concrete gains in learning through many varied co-curricular "places" of learning and their involvement with the related "activities" or organizations

(p.130). In this case, five places and activities may be separate and unrelated to employment at Norris, but they are no less powerful in sparking undergraduate learning.

In a few areas, these experiences overlap and consequently diminish the significant impact provided by those experiences when viewed solely in the context of employment at Norris. For example, after factoring in the control variables, only three experiences retained a significant, positive relationship with *Ethics and Values* development; these were: *Problem Solving*, *Idea Experimentation*, and *Intuition*. Additionally, only four workplace experiences retained a significant, positive relationship with the domain of *Responsible Independence*; these were *Collaboration, Task Repetition, Problem Solving* and *Intuition.* This finding indicates that student employment – to the extent that it is defined by the constituent experiences chosen for this study – has a more modest impact in these domains than in *Career Development*, *Civic and Community Engagement*, and *Leadership*. Recognizing that, as Braskamp et al. (2006) wrote, campus culture matters a great deal in shaping an institution's approach to teaching and learning, this finding is not at all surprising. After all, Northwestern in general – and the Norris Center specifically – place greater emphasis and resources on campus involvement, developing the next generation of leaders, and successful career placement than they do in preaching morality or cultivating conscientious behavior. Nonetheless, the primary hypothesis of the present study – that students engaging in certain workplace experiences would demonstrate overall learning in key domain areas – was largely supported.

Context Matters in Learning

Speaking to the Northwestern community on April 18, 2007, actor/director and Northwestern alum Zach Braff described his perspective on how he has learned his craft

by saying, "You can only learn so much in a classroom, you just gotta go out and do it" (Sullivan, 2007, p.3). For many students, engaging certain skill sets and learning outside the classroom mean different things depending on the context. Much of the qualitative findings acknowledge that experiences which manage to catalyze growth in these domain areas are inherently useful because they are *situated* – as Brown et al. (1989) argued in their research – in this case within the context of employment at Norris. For example, when student #20 wrote that "campus programming has given me extremely important organizational skills which can help me not just in events planning, but in many projects," the underlying message is that knowledge gained from the experience of campus programming is applicable not just on the job, but elsewhere too.

Additionally, the qualitative findings underscore a key point about learning from ACPA & NASPA's (2004) *Learning Reconsidered*: "The most important factor is that transformative learning always occurs in the active context of students' lives" (p.13). For example, student #22 succinctly described how the broader educational context can give rise to spontaneous, yet clearly meaningful, collaboration on the job: "Sometimes everybody on the shift has an exam the next day – we all come together to get the work done so that we can study later if there is free space." It is hard to imagine a more active (and, in this situation, urgent) co-curricular context where students hone collaboration skills in their pursuit of positive curricular outcomes.

The job descriptions underscore this point as well. In one example, filing, check processing and conducting data entry are useful skills for any student to learn, as these may be called upon at points later in the student's life or career. However, without the ability to demonstrate these skills within a specific context – in this particular case the

structure, policies and protocols of the Student Organization Finance Office (SOFO) –

these skills may turn out to be worthless.

Ultimately, contextualized learning has been shown to be more fruitful and

personally meaningful to students than knowledge that is either separated from

experience or fails to impact some aspect of a student's personal life. Contexts that give

students an opportunity to grapple with a problem (as discussed in Kolb's (1984) work on

experiential learning) and eventually triumph or come to a new, more complex

understanding (as discussed in Wenger's (2004) work on communities of practice) are

among the richest in producing learning. The data in this study show that many students

see student employment as one such a context – one of many on campus – that catalyzes

learning and growth.

<div align="center">Differences in Perception between Students and Staff</div>

One of the most surprising findings from the present study lay in the differences

between student and staff ratings of learning and, separately, ratings of the frequency of

workplace experiences. The quantitative survey data show a significant correlation in

only two out of five learning domains – *Civic and Community Engagement* and

Leadership – and in eight out of 13 workplace experiences – *Observation*, *Collaboration*,

Feedback from Peers, *Informal Interaction with Supervisor*, *Problem Solving*, *Idea

Experimentation*, *Reflection*, and *Intuition*. On the one hand, these findings might be

expected, considering a judgment about learning domains (especially in areas that seem

less tangible, such as *Ethics and Values*) seems a more subjective task than reporting the

frequency of (arguably) more objective job-related activities. However, on the other hand,

organizations like ACPA and NASPA (2004) suggest that learning should be the central

foundation of a well-devised student employment program and therefore the most important area for everyone involved to be on the same page. The non-significant agreement in three domain areas may imply a lack of communication around learning between student workers and their supervisors. In attempting to understand why these differences arose, it may be helpful to break apart the data and highlight certain findings.

Supervisor Feedback is Relative

For example, students reported a greater amount of *Supervisor Feedback* than the professional staff reported. This gap in perception regarding a fairly concrete experience could be explained in a number of ways. One explanation could be that staff members are comparing their current perceived level of feedback relative to the level of feedback they may have given years ago; however, comparable situations from the past do not exist for the student employees prior to their having begun work in that specific job. Therefore a judgment regarding frequency of supervisor feedback may be more absolute than relative for the students and just the opposite for the staff members. In another scenario, it is possible that students compare current perceived levels of supervisor feedback with other jobs they may hold on- or off-campus simultaneously, or with a job they may have held prior to enrolling at Northwestern. In that case, both the student and staff member may be comparing current feedback levels against completely different – yet still equally valid – standards.

Students' Curriculum is a Mystery to Professional Staff Supervisors

In another area of non-significant agreement, staff reported a much greater amount of *Congruence* on-the-job than the students reported. If one were to assume that students are the more accurate judge of their academic program, this finding

demonstrates that staff members believe that their students' employment experience overlaps with their curriculum to a much greater extent than it actually does. Given the fact that much of the current literature (e.g., ACPA & NASPA, 2004; Kuh, 1996) identifies this congruence as a necessary component to creating more meaningful, holistic educational experiences (e.g., Braskamp et al., 2006), this chasm of perception is striking, though not terribly surprising. Aside from the occasional conversational inquiry, staff members rarely know what is going on in their students' academic lives. Likewise, aside from casually mentioning an upcoming exam or assignment, student employees would have little reason to describe their coursework in detail. Even if one was inclined to do so, the opportunity might be scarce unless a professional staff member and student employee worked in close proximity to one another and had enough "down time" on the job to engage in casual conversation. Given the extent to which the student affairs literature – particularly ACPA and NASPA (2004) – regard congruence between the academic curriculum and co- or extra-curricular activities as vital to a positive, transformative educational experience, this finding should encourage administrators to continue pushing for greater integration between academic affairs and student affairs.

Practical Applications

The findings from this study point to several clear applications for student affairs professionals as well as for potential practitioner-researchers.

First, student affairs professionals must effectively communicate the central learning goals of any student employment opportunity to the broader community. The first step is to rewrite job descriptions such that they explicitly connect workplace experiences and activities with learning domains valued by the larger institution. In the

present study, position descriptions mostly failed to draw attention to potential learning

opportunities or growth areas for prospective applicants. And while position descriptions

may have minimal impact on a student's decision to apply for work or accept a pending

job offer, ignoring important educational outcomes communicates a very clear message:

that professional staff do not see learning as a primary, or even necessary, component of

their student employment program.

Second, student affairs professionals must expand opportunities for student

employees to engage with certain workplace experiences in order to enhance student

learning in specific domains. If the goal is to focus growth in leadership, staff should

expand concrete opportunities for informal training or supervisor feedback. Rather, if the

focus is on students developing a personally meaningful system of ethics and values, staff

members should ensure that students have opportunities to meet challenges on their own

by experimenting with new ideas or making judgments intuitively. And if the goal is to

spark learning across all domains, staff should give their student employees opportunities

to problem solve as much as possible. In short, learning can be targeted to certain domain

areas by providing opportunities for certain workplace experiences that have been shown

to be empirically and qualitatively significant. See Table 14 below for a full summary of

learning domains and the specific workplace experiences that significantly impact

learning (after subtracting any effects from control variables).

Third, student affairs professionals must commit to regular learning assessments

within their student employee programs. Continual research and evaluation will produce

a richer understanding of the potential for learning, the extent to which that potential is

being realized under current circumstances, and identify areas or processes that should

change to enhance student learning. Additionally, it will fulfill two challenges posed by

ACPA & NASPA (2004) in *Learning Reconsidered*: develop routine methods for hearing

students' thoughts and opinions regarding their learning experience and enhance

opportunities for students to accomplish desired learning outcomes.

Table 14. **Summary of learning domains and specific workplace experiences that impact learning, after control experiences**

Learning Domain	Experiences that significantly impact learning
Career Development	Informal Training, Collaboration, Peer Feedback, Supervisor Feedback, Informal Interaction with Supervisor, Problem Solving, Idea Experimentation, Reflection, Intuition, Congruence
Civic and Community Engagement	Collaboration, Informal Interaction with Supervisor, Task Repetition, Problem Solving, Idea Experimentation, Reflection, Intuition, Congruence
Leadership	Informal Training, Collaboration, Supervisor Feedback, , Problem Solving, Idea Experimentation, Reflection, Intuition, Congruence
Ethics and Values	Problem Solving, Idea Experimentation, Intuition
Responsible Independence	Collaboration, Task Repetition, Problem Solving, Intuition

Conclusions

Results and Implications

    Results. The data from this study affirms much of the literature on undergraduate learning in demonstrating three key findings. First, learning is occurring in this student employment setting across all five domains included in this study: *Career Development*, *Civic and Community Engagement*, *Leadership*, *Ethics and Values*, and *Responsible Independence*. Second, 12 workplace experiences that have been shown to promote learning are in fact occurring within the Norris Center's student employment program. These experiences are: informal training; observation of co-workers; collaboration/teamwork; peer feedback; supervisor feedback; informal interactions with one's supervisor; task repetition; problem solving; idea experimentation; reflection; intuitive decision-making; and congruence between job tasks/experiences and classroom curricula. Third, after controlling for a group of external experiences as well as job satisfaction, most of these 12 workplace experiences continued to demonstrate a significant, positive relationship with the five learning domains. The strongest relationships between workplace experiences and learning lay in the areas of *Career Development*, *Civic and Community Engagement*, and *Leadership*. Two surprising findings included students reporting high levels of learning in areas that were not mentioned anywhere in their job description, and differences between student and staff perceptions on the frequency of *Supervisor Feedback* and opportunities for *Congruence* between coursework and employment goals. More research is needed to confirm these results and examine their validity in other student employment environments both within Northwestern University and at other institutions.

Implications. Student affairs professionals must undertake a careful and thoughtful process of identifying, assessing and publicizing concrete learning that occurs in their co-curricular or extra-curricular settings such as student employment. Professionals who supervise student employees must ensure that their job descriptions identify concrete, measurable learning outcomes. For the college union professional, student employment must be regarded with no less attention than is normally reserved for student activities or campus involvement while assessing the learning environment.

Limitations

The strongest limitation of the present study involved the fact that – as part of this researcher's position as a professional staff member at the Norris Center – nearly half of the total number of student employees (and 44% of the participants in the study) have this researcher as their professional staff supervisor. This posed several problems for the present study, specifically: concerns about confidentiality surrounding access to data and concerns over this researcher completing the staff survey for a large number of student participants, thus rendering the data potentially unreliable.

The first limitation was addressed by recruiting a colleague from a different department to act as a research assistant (RA) in this project. The RA was responsible for compiling all data, and in the process removed all names and replaced them with random study participant numbers before forwarding the data on to this researcher for analysis. Thus, at no time was this researcher, or any other Norris employee (student or staff), privy to participants' data in an identifiable format.

The second limitation was addressed by asking two student employees – both "area supervisors" – to complete the staff survey on behalf of 31 "area attendants or

assistants" who worked in their areas (32% of the total sample). In the end, this researcher completed the staff survey for 12 students (12% of the total sample).

Additional limitations involve the possibility that the results of this study may not generalize to other work settings, due to factors including: total sample size (97 students), response rate (59% for initial survey and 37% for qualitative follow-up survey), or qualities that distinguish the Norris Center and Northwestern University from other college unions at other institutions (e.g., private, Midwest, Research-I).

Future Directions

Suggestions for future research. More research is needed to affirm or refine the results of this study and to asses its ability to generalize to other student employment settings, both at Northwestern and at different institutions of higher education. To that end, the next logical study would entail measuring concrete gains in student learning over the course of a full academic year, utilizing a pre-post design that captures student and staff perceptions before students begin work, after the school year concludes, and possibly a mid-year assessment for an additional data point. Ideally, such a study – being longitudinal in nature – would address the relationship between workplace experiences and student learning from a more causal perspective, thus being more reliable than the correlations presented in the present study. Student affairs professionals at Northwestern and colleagues at other institutions should replicate this study in order to assess its transferability and refine its results for their particular areas.

Additionally, research is needed to address the areas where student employment impacts learning in domains not covered by this project, such as *Humanitarianism*, *Intra- and Inter-personal Competence* or *Healthy Living*. Current literature from the field,

including many sources used in this study (e.g. CAS, *Learning Reconsidered*), suggests these are important learning domains that can be affected by co- and extra-curricular involvement. Such research into these domains could replicate many aspects of the current study by examining the potential impact that workplace experiences might have on learning. Or, such a study could attempt to measure growth in these areas as they are affected by different situated experiences other than employment, such as those found in residence halls, student leadership, or sports teams.

Some final thoughts on research conducted by administrative staff members. Paradoxically, measuring extra-curricular student learning in an empirical study such as this will almost certainly prove simultaneously comforting and unnerving for many student affairs professionals. On the one hand, obtaining concrete data on learning outcomes should feel triumphant; after all, the field has been building towards just this kind of research for many years now. And yet on the other hand, beginning a thoughtful process of empirical research may prove equally daunting and overwhelming to administrators who see themselves as more practitioner than researcher. However student affairs professionals must begin taking these first steps, inching their way into research as one slips carefully into a frigid lake, or the challenges posed by higher education stakeholders (e.g., legislators, accrediting bodies, parents, students) will remain insurmountable. Working closely with faculty, colleagues and students, this necessary research can be accomplished; it may appear tenuous at first, but over time will begin to resonate and, ultimately, provide a solid foundation of transformative learning upon which student affairs can grow and develop, long into the future.

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Appendix A – Four selected job descriptions

Center Manager
Wage: $9.15
Work Study Required

Area: Norris Administration

Supervisor: Events Production Manager

Function: Responsible for the effective operation of Norris Center and its departments. The Center Manager is a representative of the administrative staff of the Center on evenings and weekends. He/She facilitates communication amongst the entire Norris Center staff both part-time and full-time.

Hours/Shifts Available: 8-12 hours per week, Norris Center building hours vary.

Responsibilities:

1. Knowledge of each Norris department/area cash handling procedures.

2. Respond to requests for cash funds and provide according to established procedures.

3. Responsible for cash fund security and supervision of all safes and money traffic.

4. Maintain pleasant and safe building environment.

5. Regularly tour the building to ensure that all areas are effectively functioning.

6. Be alert to any unusual occurrences such as vandalism, theft, fire and illness.

7. Verify event set-ups, open and close facilities at appropriate times, coordinate with Production Staff and Main Desk.

8. Responsible for security of building and equipment.

Box Office Attendant
Wage: $7.16 per hour
Work Study Required

Area: Box Office/Building Services and Marketing

Supervisor: Norris Box Office Supervisor

Function: An active team member who participates in the area's development, including promotion/advertising, selling tickets, taking/processing registration forms, and conducting various sales. The attendant creates a friendly, recreational, and customer-oriented atmosphere through professional interaction with customers.

Hours/Shifts Available: 10-15 hours per week during operating hours (Monday-Friday: 10:30am-6pm; Saturday: 12-4pm)

Responsibilities:

1.   Responsible for daily operation of the Box Office area including tickets, stamp sales, and registrations for various programs.

2.   Punctual attendance and adherence to the Norris Box Office Attendance Policy, which includes finding substitute workers prior to missing shifts.

3.   Responds to general inquiries regarding campus events and how to obtain tickets.

4.   Maintains an organized, clean, and presentable area.

5.   Enforces area policies.

6.   Attends area meeting and Norris University Center orientation and training programs.

7.   Assists with advertising for the department (i.e. posters).

8.   Other duties as assigned.

Qualifications: Organizational skills, decision-making, and problem solving abilities, conscientious in regard to attendance and adherence to area procedures, good

written/verbal skills, cash handling/cash register operation experience is a plus, customer service experience in Box Office is a plus.

SOFO Supervisor
Wage: $7.82 per hour
Work Study Required

Area: SOFO (Student Organization Finance Office)

Supervisor: SOFO Department Assistant

Function: Responsible for smooth operations of the SOFO office.

Office Hours/Shifts Available: Monday through Friday-9:00 a.m. to 5:00 p.m.

Responsibilities:

1.   Responsible for supervision of SOFO attendants in the completion of their duties and operation of the SOFO office.

2.   This includes processing checks, CUFS payments and maintain proper customer service.

3.   High public contact.

4.   Trains student organization presidents and treasures on SOFO policies and procedures.

5.   Interviews, selects, trains, evaluates and terminates SOFO attendants.

6.   Establishes adequate work shifts. Works extra shifts when needed.

7.   Run office in absence of SOFO Department Assistant.

Qualifications:

1.   Accounting experience and prior computer knowledge.

Cat's Corner Attendant
Wage: $7.38 per hour
Work Study Required

Area: Cat's Corner/Building Services and Marketing

Supervisor: Cat's Corner Supervisor

Function: An active team member who participates in the area's development, including promotion/advertising and customer service. The attendant assists customers with DVD rental transactions and other purchases.

Hours/Shifts Available: 10-12/week

Responsibilities:

1.   Assists the Cat's Corner Supervisor with special events and promotions

2.   Displays all titles to outlined specifications

3.   Maintains poster storage

4.   Opens and closes the area

5.   Adheres to motion picture laws regarding DVD new release rentals

6.   Attends all required staff meetings and special training sessions

7.   Transact cash and credit card sales

8.   Punctual for shifts and finds substitute for scheduled shifts

9.   Keeps the area neat and clean in order to serve customers

10.   Other duties as assigned

Qualifications:
1.   Experience with video or other retail related operations.
2.   Positive attitude and likes working with people
3.   Ability to work independently
4.   Customer service experience a plus
5.   Must be available to work weekends
6.   Conscientious in regard to attendance and adherence to area procedures

Appendix B – Survey Instruments

Initial Survey – Student Employees

Northwestern University
School of Education and Social Policy
Master of Science in Education - Higher Education Administration & Policy
==================
Project Title: Student Employment and Learning Outcomes

Principal Investigator or Faculty Advisor: Lois Trautvetter, Ph.D.

Co-Investigator: Jonathan S. Lewis

Introduction: You are being asked to participate in a research study that examines learning that occurs in the context of one's job. You are being asked to participate in this study because you work at the Norris University Center, the location of this study, as a student employee. The purpose of this study is to better understand which on-the-job experiences relate to higher levels of student learning.

Procedure: All student employees and professional staff who directly supervise student employees at Norris University Center will be invited to participate in this study. This study will take approximately 20 minutes to complete. Additionally, you may be contacted to participate in a short follow-up survey.

Risks & Confidentiality: Participation in this research study may result in a loss of privacy, since persons other than the investigator(s) might view your study records. While a portion of this study will involve staff members rating individual student employees, the staff members will at no point see individual student self-ratings or survey data. Likewise, students will at no point see individual staff members survey responses. In addition, student survey data will not affect a student's employment status at Norris University Center nor will it become part of the student's employment record. Student employees who work for the co-investigator on this project (Jonathan S. Lewis) should note that the co-investigator will at no point in this study have knowledge of which individual students submitted certain survey responses.

Benefits: You may not experience any direct benefit by participating in this study. Choosing to participate may allow you the chance to reflect on your experiences working at the Norris Center and how working at Norris has influenced your learning while at Northwestern. Additionally, by participating in this survey you will be entered in a drawing for one of two iPod nanos.

Subject Rights: Your participation in this study is voluntary and you are free to withdraw at any time. Choosing not to participate or withdrawing from this study will not affect you or your employment status at Norris University Center, now or in the future, in any way.

Contact: Any questions you may have about this study may be directed to Jonathan S. Lewis, Co-Investigator, at telephone number (847) 491-2390 or via e-mail at jsl@northwestern.edu. You may also contact Lois Trautvetter, Ph.D., Principal Investigator, at telephone number (847) 491-3901 or via e-mail at l-trautvetter@northwestern.edu. Questions about your rights as a research subject may be directed to the Office for the Protection of Research Subjects of Northwestern University at telephone number (312) 503-9338.

Enter your name here: _____
(Please Note: This survey is completely confidential. Your supervisor will not see any portion of your responses to this survey)

Enter your professional staff supervisor's last name here: _____
(Please Note: This survey is completely confidential. Your supervisor will not see any portion of your responses to this survey)

On your job, how frequently do you…

	Very infrequently						Very frequently
Receive formal training in specific tasks	1	2	3	4	5	6	7
Receive informal/unscheduled training in specific tasks	1	2	3	4	5	6	7
Observe co-workers demonstration aspects of your job	1	2	3	4	5	6	7
Collaborate or work as a team	1	2	3	4	5	6	7
Receive feedback from peers	1	2	3	4	5	6	7
Receive feedback from supervisor	1	2	3	4	5	6	7
Interact informally with your supervisor	1	2	3	4	5	6	7
Repeat the same tasks multiple times	1	2	3	4	5	6	7
Problem solve	1	2	3	4	5	6	7
Experiment with new ideas	1	2	3	4	5	6	7
Reflect about your job	1	2	3	4	5	6	7
Make decisions based on your intuition or judgment as opposed to checking with supervisor	1	2	3	4	5	6	7
Relate on-the-job tasks/experiences and what you're learning in your classes	1	2	3	4	5	6	7

On the following pages you will find a list of five concepts. These descriptions represent ideals of the concepts. Not everyone will embody the ideal of every (or all) of the concepts. Please read the description and answer the questions below pertaining to that concept.

Below you will find a list of five concepts. These descriptions represent ideals of the concepts. Not everyone will embody the ideal of every (or all) of the concepts. Please read the description and answer the questions below pertaining to that concept.

CAREER DEVELOPMENT entails establishing an understanding of yourself in relation to your professional life choices. It includes gaining knowledge and experience related to preparing yourself for your emerging career path.

To what extent do you feel you embody the ideal of CAREER DEVELOPMENT expressed above?

Not at all						Completely
1	2	3	4	5	6	7

To the extent that you embody the ideal of CAREER DEVELOPMENT, to what degree have the following experiences while WORKING AT NORRIS contributed to your career development?

	Very minimally						Extremely
Receive formal training in specific tasks	1	2	3	4	5	6	7
Receive informal/unscheduled training in specific tasks	1	2	3	4	5	6	7
Observe co-workers demonstration aspects of your job	1	2	3	4	5	6	7
Collaborate or work as a team	1	2	3	4	5	6	7
Receive feedback from peers	1	2	3	4	5	6	7
Receive feedback from supervisor	1	2	3	4	5	6	7
Interact informally with your supervisor	1	2	3	4	5	6	7
Repeat the same tasks multiple times	1	2	3	4	5	6	7
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Reflect about your job	1	2	3	4	5	6	7
Make decisions based on your intuition or judgment as opposed to checking with supervisor	1	2	3	4	5	6	7
Relate on-the-job tasks/experiences and what you're learning in your classes	1	2	3	4	5	6	7

To the extent that you embody the ideal of CAREER DEVELOPMENT, to what degree have the following experiences OUTSIDE OF WORKING AT NORRIS contributed to your career development?

	Very minimally						Extremely	
Employment (not at Norris)	1	2	3	4	5	6	7	N/A
Extracurricular activities (student orgs, sports, etc.	1	2	3	4	5	6	7	N/A
Residence Hall/Residential College	1	2	3	4	5	6	7	N/A
Fraternity or Sorority	1	2	3	4	5	6	7	N/A

Experiences within the classroom	1	2	3	4	5	6	7	N/A
Experiences prior to attending college	1	2	3	4	5	6	7	N/A

CIVIC AND COMMUNITY ENGAGEMENT involves active participation in campus life and the broader society. It includes your connectedness to others, involvement in groups and commitment to socially responsible action

To what extent do you feel you embody the ideal of CIVIC AND COMMUNITY ENGAGEMENT expressed above?

Not at all						Completely
1	2	3	4	5	6	7

To the extent that you embody the ideal of CIVIC AND COMMUNITY ENGAGEMENT, to what degree have the following experiences while WORKING AT NORRIS contributed to your career development?

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Make decisions based on your intuition or judgment as opposed to checking with supervisor	1	2	3	4	5	6	7
Relate on-the-job tasks/experiences and what you're learning in your classes	1	2	3	4	5	6	7

To the extent that you embody the ideal of CIVIC AND COMMUNITY ENGAGEMENT, to what degree have the following experiences OUTSIDE OF WORKING AT NORRIS contributed to your career development?

	Very minimally					Extremely		
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Experiences prior to attending college	1	2	3	4	5	6	7	N/A

LEADERSHIP involves creating and demonstrating a philosophy and style that will guide you in leadership roles. It includes visualizing a common goal, communicating effectively, enlisting others in your vision and implementing a strategy for meeting the desired outcomes.

To what extent do you feel you embody the ideal of LEADERSHIP expressed above?

Not at all						Completely
1	2	3	4	5	6	7

To the extent that you embody the ideal of LEADERSHIP, to what degree have the following experiences while WORKING AT NORRIS contributed to your career development?

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Relate on-the-job tasks/experiences and what you're learning in your classes	1	2	3	4	5	6	7

To the extent that you embody the ideal of LEADERSHIP, to what degree have the following experiences OUTSIDE OF WORKING AT NORRIS contributed to your career development?

	Very minimally						Extremely	
Employment (not at Norris)	1	2	3	4	5	6	7	N/A
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Experiences within the classroom	1	2	3	4	5	6	7	N/A
Experiences prior to attending college	1	2	3	4	5	6	7	N/A

ETHICS AND VALUES encompasses your ability to develop, articulate and live within a personally meaningful value system. It includes differentiating between contrasting ethical principles and being willing to question and revise your beliefs

To what extent do you feel you embody the ideal of ETHICS AND VALUES expressed above?

Not at all						Completely
1	2	3	4	5	6	7

To the extent that you embody the ideal of ETHICS AND VALUES, to what degree have the following experiences while WORKING AT NORRIS contributed to your career development?

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Receive formal training in specific tasks	1	2	3	4	5	6	7
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Relate on-the-job tasks/experiences and what you're learning in your classes	1	2	3	4	5	6	7

To the extent that you embody the ideal of ETHICS AND VALUES, to what degree have the following experiences OUTSIDE OF WORKING AT NORRIS contributed to your career development?

	Very					Extremely

	minimally							
Employment (not at Norris)	1	2	3	4	5	6	7	N/A
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Experiences within the classroom	1	2	3	4	5	6	7	N/A
Experiences prior to attending college	1	2	3	4	5	6	7	N/A

RESPONSIBLE INDEPENDENCE involves being self-reliant and managing your life effectively. It includes developing a balance between education, work and leisure time, demonstrating economic self-sufficiency and maintaining health and wellness.

To what extent do you feel you embody the ideal of RESPONSIBLE INDEPENDENCE expressed above?

Not at all						Completely
1	2	3	4	5	6	7

To the extent that you embody the ideal of RESPONSIBLE INDEPENDENCE, to what degree have the following experiences while WORKING AT NORRIS contributed to your career development?

	Very minimally						Extremely
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Reflect about your job	1	2	3	4	5	6	7
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Relate on-the-job tasks/experiences and what you're learning in your classes	1	2	3	4	5	6	7

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Experiences within the classroom	1	2	3	4	5	6	7	N/A
Experiences prior to attending college	1	2	3	4	5	6	7	N/A

Are there any other comments you wish to make about experiences that might impact your learning on the job?

_____

_____

Please answer the following 4 questions related to job satisfaction at Norris:

	Strongly Agree					Strongly Disagree	
If a good friend of mine told me that he/she was interested in working in a job like mine I would strongly recommend it.	1	2	3	4	5	6	7
All in all, I am very satisfied with my current job	1	2	3	4	5	6	7
In general, my job measures up to the sort of job I wanted when I took it.	1	2	3	4	5	6	7
Knowing what I know now, if I had to decide all over again whether to take my job, I would.	1	2	3	4	5	6	7

Please answer the following demographic questions:

Gender: Male   Female   Transgender

Age: 16 or younger 17   18   19   20   21   22   23   24+

Year in School: Freshman   Sophomore   Junior Senior   Fifth-Year Senior   Other

Major field(s) of study: _____

Race: _____

Position at Norris: Center Manager   Area Supervisor   Area Attendant or Assistant

Approximate number of hours worked per week at Norris (while classes are in session):   1-5   6-10   10-15   16-20   20+

Second Survey – Professional Staff

Northwestern University
School of Education and Social Policy
Master of Science in Education - Higher Education Administration & Policy
====================
Project Title: Student Employment and Learning Outcomes

Principal Investigator or Faculty Advisor: Lois Trautvetter, Ph.D.

Co-Investigator: Jonathan S. Lewis

Introduction: You are being asked to participate in a research study that examines learning that occurs in the context of one's job. You are being asked to participate in this study because you work at the Norris University Center, the location of this study, as a professional staff member who directly supervises student employees. The purpose of this study is to better understand which on-the-job experiences relate to higher levels of student learning.

Procedure: All student employees and professional staff who directly supervise student employees at Norris University Center will be invited to participate in this study. This study will take approximately 20 minutes to complete. Additionally, you may be contacted to participate in a short follow-up survey.

Risks & Confidentiality: Participation in this research study may result in a loss of privacy, since persons other than the investigator(s) might view your study records. While a portion of this study will involve staff members rating individual student employees, the staff members will at no point see individual student self-ratings or survey data. Likewise, students will at no point see individual staff members survey responses. In addition, student survey data will not affect a student's employment status at Norris University Center nor will it become part of the student's employment record. Student employees who work for the co-investigator on this project (Jonathan S. Lewis) should note that the co-investigator will at no point in this study have knowledge of which individual students submitted certain survey responses.

Benefits: You may not experience any direct benefit by participating in this study. Choosing to participate may allow you the chance to reflect on your student employees' experiences working at the Norris Center and how working at Norris has influenced their learning while at Northwestern.

Subject Rights: Your participation in this study is voluntary and you are free to withdraw at any time. Choosing not to participate or withdrawing from this study will not affect you or your employment status at Norris University Center, now or in the future, in any way.

Contact: Any questions you may have about this study may be directed to Jonathan S.

Lewis, Co-Investigator, at telephone number (847) 491-2390 or via e-mail at jsl@northwestern.edu. You may also contact Lois Trautvetter, Ph.D., Principal Investigator, at telephone number (847) 491-3901 or via e-mail at l-trautvetter@northwestern.edu. Questions about your rights as a research subject may be directed to the Office for the Protection of Research Subjects of Northwestern University at telephone number (312) 503-9338.

Enter your name here:_____
(Please note: This survey is completely confidential. Your student employees will not see any portion of your responses to this survey)

Enter name of student staff member you will be assessing in this survey:_____
(Please note: This survey is completely confidential. Your student employees will not see any portion of your responses to this survey)

How frequently does this student employee engage in the following activities on the job:

	Very infrequently						Very frequently
Receive formal training in specific tasks	1	2	3	4	5	6	7
Receive informal/unscheduled training in specific tasks	1	2	3	4	5	6	7
Observe co-workers demonstration aspects of your job	1	2	3	4	5	6	7
Collaborate or work as a team	1	2	3	4	5	6	7
Receive feedback from peers	1	2	3	4	5	6	7
Receive feedback from supervisor	1	2	3	4	5	6	7
Interact informally with your supervisor	1	2	3	4	5	6	7
Repeat the same tasks multiple times	1	2	3	4	5	6	7
Problem solve	1	2	3	4	5	6	7
Experiment with new ideas	1	2	3	4	5	6	7
Reflect about your job	1	2	3	4	5	6	7
Make decisions based on your intuition or judgment as opposed to checking with supervisor	1	2	3	4	5	6	7
Relate on-the-job tasks/experiences and what you're learning in your classes	1	2	3	4	5	6	7

On the following pages you will find a list of five concepts. These descriptions represent ideals of the concepts. Not everyone will embody the ideal of every (or all) of the concepts. Please read the description and answer the questions below pertaining to that concept.

Below you will find a list of five concepts. These descriptions represent ideals of the concepts. Not everyone will embody the ideal of every (or all) of the concepts. Please read the description and answer the questions below pertaining to that concept.

CAREER DEVELOPMENT entails establishing an understanding of yourself in relation to your professional life choices. It includes gaining knowledge and experience related to preparing yourself for your emerging career path.

To what extent do you feel this student embodies the ideal of CAREER DEVELOPMENT expressed above?

Not at all   Completely
1   2   3   4   5   6   7

CIVIC AND COMMUNITY ENGAGEMENT involves active participation in campus life and the broader society. It includes your connectedness to others, involvement in groups and commitment to socially responsible action

To what extent do you feel this student embodies the ideal of CIVIC AND COMMUNITY ENGAGEMENT expressed above?

Not at all   Completely
1   2   3   4   5   6   7

LEADERSHIP involves creating and demonstrating a philosophy and style that will guide you in leadership roles. It includes visualizing a common goal, communicating effectively, enlisting others in your vision and implementing a strategy for meeting the desired outcomes.

To what extent do you feel this student embodies the ideal of LEADERSHIP expressed above?

Not at all   Completely
1   2   3   4   5   6   7

ETHICS AND VALUES encompasses your ability to develop, articulate and live within a personally meaningful value system. It includes differentiating between contrasting ethical principles and being willing to question and revise your beliefs

To what extent do you feel this student embodies the ideal of ETHICS AND VALUES expressed above?

Not at all   Completely
1   2   3   4   5   6   7

RESPONSIBLE INDEPENDENCE involves being self-reliant and managing your life effectively. It includes developing a balance between education, work and leisure time, demonstrating economic self-sufficiency and maintaining health and wellness.

To what extent do you feel this student embodies the ideal of RESPONSIBLE INDEPENDENCE expressed above?

Not at all   Completely
1   2   3   4   5   6   7

Are there any other comments you wish to make about this student in relation to experiences that might affect their learning on the job?

Please answer the following demographic questions:

Gender: Male   Female   Transgender

Number of years in this position: _____

Number of years working at Northwestern and/or a different higher education institution: _____

Number of years supervising student employees: _____

Follow-up Survey – Student Employees

Northwestern University
School of Education and Social Policy
Master of Science in Education - Higher Education Administration & Policy
====================

Project Title: Student Employment and Learning Outcomes

Principal Investigator or Faculty Advisor: Lois Trautvetter, Ph.D.

Co-Investigator: Jonathan S. Lewis

Student employees at Norris University Center who completed the first survey as part of this research study will be invited to participate in this follow-up survey. This survey will take approximately 10 minutes to complete.

Risks & Confidentiality: Participation in this research study may result in a loss of privacy, since persons other than the investigator(s) might view your study records. While a portion of this study will involve staff members rating individual student employees, the staff members will at no point see individual student self-ratings or survey data. Likewise, students will at no point see individual staff members survey responses. In addition, student survey data will not affect a student's employment status at Norris University Center nor will it become part of the student's employment record. Student employees who work for the co-investigator on this project (Jonathan S. Lewis) should note that the co-investigator will at no point in this study have knowledge of which individual students submitted certain survey responses.

Subject Rights: Your participation in this study is voluntary and you are free to withdraw at any time. Choosing not to participate or withdrawing from this study will not affect you or your employment status at Norris University Center, now or in the future, in any way.

Contact: Any questions you may have about this study may be directed to Jonathan S. Lewis, Co-Investigator, at telephone number (847) 491-2390 or via e-mail at jsl@northwestern.edu. You may also contact Lois Trautvetter, Ph.D., Principal Investigator, at telephone number (847) 491-3901 or via e-mail at l-trautvetter@northwestern.edu. Questions about your rights as a research subject may be directed to the Office for the Protection of Research Subjects of Northwestern University at telephone number (312) 503-9338.

Enter your name here: _____
(Please Note: This survey is completely confidential. Your supervisor will not see any portion of your responses to this survey)

Enter your professional staff supervisor's last name here: _____

(Please Note: This survey is completely confidential. Your supervisor will not see any portion of your responses to this survey)

Instructions: For the following exercise, please write at least 2-3 paragraphs for each question and phrase your answer in the first-person. Click "submit" at the bottom of this screen when you are finished.

Imagine you are interviewing for your first professional job after graduation. The hiring manager is especially interested in your work at the Norris Center during your time at Northwestern. How would you answer the following two questions?

Beyond the specific duties of your job(s), what do you feel that you have learned from working at the Norris Center?

_____
_____
_____

What specific experiences/components of your job(s) contributed to the learning you outlined above?

_____
_____
_____

Please answer the following demographic questions:

Gender: Male   Female   Transgender

Age:

Year in school: Freshman   Sophomore   Junior Senior   Fifth-Year Senior   Other

Major field(s) of study:

Race:

Position at Norris: Center Manager   Area Supervisor   Area Attendant or Assistant