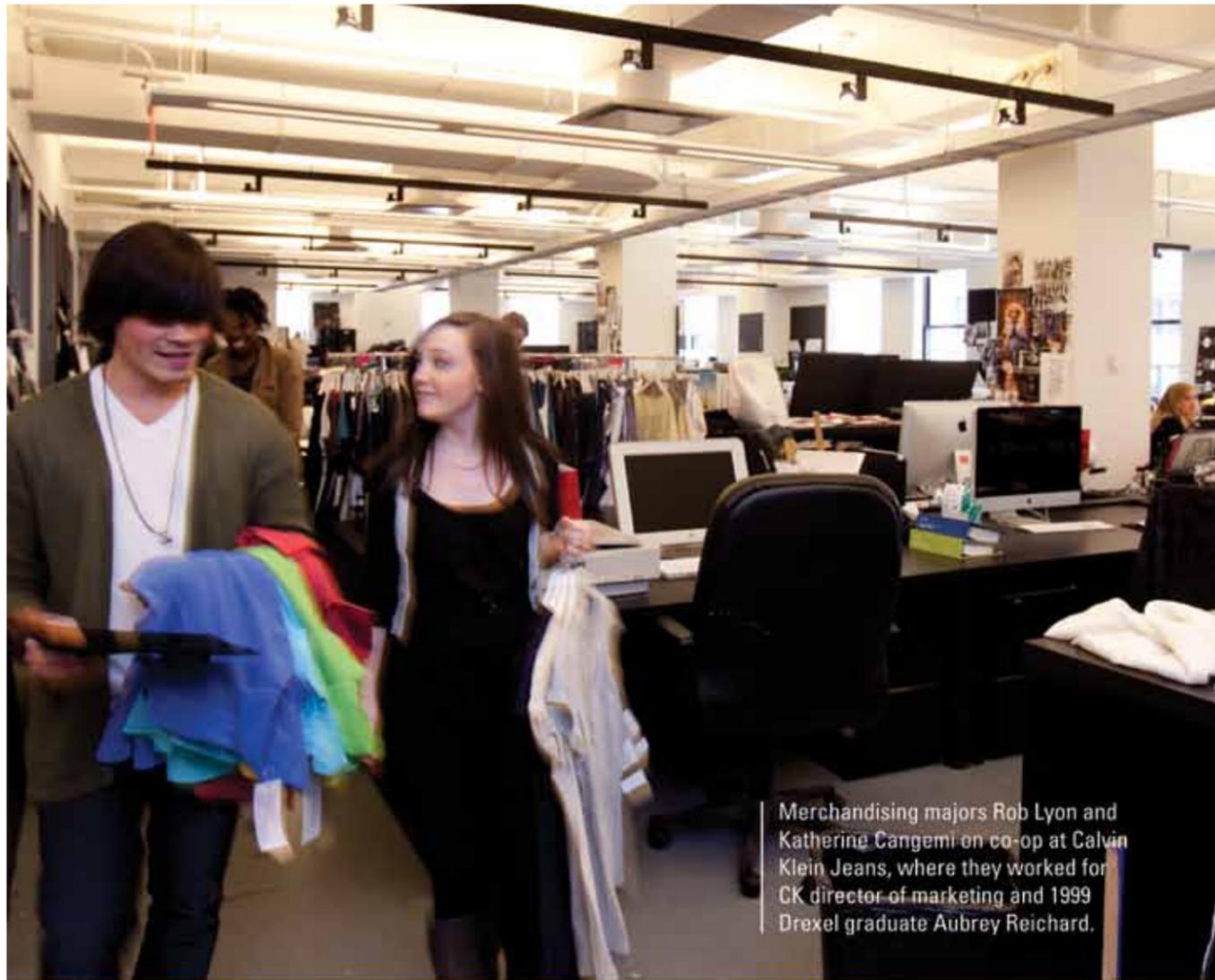


# experience



**/ Finding  
the Theory**  
IN THEORY + PRACTICE



Merchandising majors Rob Lyon and Katherine Cangemi on co-op at Calvin Klein Jeans, where they worked for CK director of marketing and 1999 Drexel graduate Aubrey Reichard.

# Drexel University

## CO-OP AT THE HEART OF THE EXPERIENCE

Drexel University in Philadelphia is a world leader in co-operative education, and has been since 1919. Drexel offers co-op in every undergraduate major...regional, national and global opportunities...creative, entrepreneurial and research positions in the private and public sectors...and support from fellowships and scholarships. The Drexel Co-op is as comprehensive as our University, and as innovative.

For more information:

**Drexel's Steinbright Career Development Center**

Peter J. Franks, Senior Associate Vice Provost for Career Education

215.895.2185 [drexel.edu/scdc](http://drexel.edu/scdc)



FALL 2012

# experience

04

## LETTER FROM THE EDITOR

By Michelle Clare,  
University of Cincinnati

06

## PERSPECTIVES

A Few Thoughts On Information  
Rattling Around My Cranium

By Michael True, Messiah College

/ 10

## FEATURE: FOCUS ON RESEARCH



Why is Research Important  
to the Practitioner?

By Cheryl Cates, University of Cincinnati

Exploring some current issues  
for Cooperative Education

By Karsten E. Zegwaard  
and Richard K. Coll

Does Co-operative Education  
play a role in Student Recruitment,  
Engagement and Success?

By Research and Initiatives Committee  
Association for Co-operative Education,  
British Columbia/Yukon

Research Basic: Developing  
Good Questions for a Study

By Tracey Bowen, University of Toronto

30

## BEST PRACTICE SPOTLIGHT

Internship Soul Mates: Designing  
and Executing a Successful  
Interview and Matching Process  
in an Open Access Program

By Zach Osborne and Annie Straka,  
University of Cincinnati

36

## BEST PRACTICE SPOTLIGHT

Establishing a Comprehensive  
Assessment System for Internships:  
Johnson & Wales University's Story

By Gregory F. Lorenz and Maureen Dumas  
Johnson & Wales University

42

## BOOK REVIEW

"Find Your Next Professional  
Job: A Guide for Community  
College Students and Experienced  
Workers" by Tamara Pinkas and  
Scott Weighart

By Jill Lutz  
Central Piedmont Community College

44

## WORD FROM THE PRESIDENT

What Next?

By Randy Poole,  
Prince George's Community College

45

## UPDATE

Federal Pathways Program

By Jill Lutz  
Central Piedmont Community College

46

## EVENTS + HAPPENINGS



Michelle Clare is a Co-op Faculty Advisor at the University of Cincinnati.

Dear Colleagues and Friends —

Often times I come into the office with big ideas of what I'm going to accomplish in a given day.

Often times I leave the office pondering what I had intended to do and feeling perplexed about how little of it I had actually gotten done. I'M SURE YOU KNOW THE FEELING.

Why, you might ask, do we feel this way? Why do we fail to stay on track? Here's my theory:

I spend much of my day responding and reacting (i.e. putting out fires and responding to messages from all directions—through email mostly — and which often deal with short-term concerns/issues) instead of initiating and planning (i.e. focusing and processing relevant information, having meaningful discussion focused on crucial issues and basically taking a thoughtful, proactive approach to my work). THIS IS A PROBLEM.

Here is just one small example of what I'm talking about.

In the age of email as the main mode of communication we have been blessed with this convenient little reminder which pops up on the bottom right side of our computer screen every time a new message appears in our inbox. Compound this with a buzzing smart phone and essentially I'm disrupted by various noises and visual reminders EVERY TIME I RECEIVE A NEW EMAIL. And the worst part: I can't turn it off.

I have tried experimentally to close my email while doing other work. I've tried but somehow the compulsion to know what is in there, what messages are waiting for me, has been too much to resist. I've become obsessed with dealing with these short-term concerns, these fires, so to speak. I would guess that I'm not the only one.

Sometime back I was talking with a colleague about work life before email. Now, I'll tell you that I'm old enough to remember the first email account I established but I never worked in a professional setting prior to the onset of email as the main mode of communication. What she told me in the course of our conversation still seems remarkable to me. She said (and I paraphrase):

Before email you were happy with yourself if you accomplished a few meaningful things in a given day. In the age of email, there is never an end to what is expected. No matter how productive you are, you are never finished and it is much harder to have a sense of accomplishment when you are staring at an inbox which never seems to go below 50 seemingly-urgent messages all requiring response and/or action.

WOW.

Now, this is not a statement about the value of technology. I undoubtedly know that technology has made our lives easier in many ways. I also know that technology has made constant communication not only possible but necessary and that this shift in expectation (as my colleague illustrated perfectly) has impacted our ability to focus, to reflect, to process, to discuss and to plan for things that truly matter.

Combine this with the fact that most of us face a huge lack of resources (both human and other) and you've got the perfect storm. And I suspect that it is in this perfect storm that the focus on the academic foundation of our field, of our practice, is being lost. WE MUST FIND IT.

And so I have issued myself the following challenge. I am going to practice what I preach. I am going to combine the THEORY + PRACTICE instead of focusing solely on the practice. I have confidence this is going to inspire me, help me do my job better,

feel more accomplished and ultimately make me a better practitioner. JOIN ME AND TAKE THIS CHALLENGE.

1. 2 times a week take a few minutes to read an article from an academic journal related to our field/practice (resources provided throughout this issue)
2. During these times, close your email. Focus on focusing.
3. Ponder how these articles might help you be a better practitioner and write down realistic ideas of how you might be more effective based on what you have learned.

This is a start.

In this issue, I've set out to show a few examples of very useful information which has come out of recent research in our field. Additionally, I've provided some basic resources to help you get started focusing on the academic aspect of what it is that we do. You'll also find some best practices highlighted and hopefully some inspiration.

Here's to hoping we can all work toward FINDING THE THEORY IN THEORY + PRACTICE. It is certainly in our best interest to do so.

Sincerely,  
Michelle Clare, Editor

Finding the Theory in Theory + Practice

EDITOR

Michelle Clare, University of Cincinnati

ASSOCIATE EDITOR

Jill Lutz, Central Piedmont Community College

DESIGN

Lisa Barlow Design

Finding the Theory... START HERE.



Both of these journals have open access. Browse current articles or search the archives by keyword. Articles in both publications have direct relevance to co-op and internship practitioners.

Journal of Cooperative Education and Internships

www.ceiainc.org/journal.asp

Asia-Pacific Journal of Cooperative Education

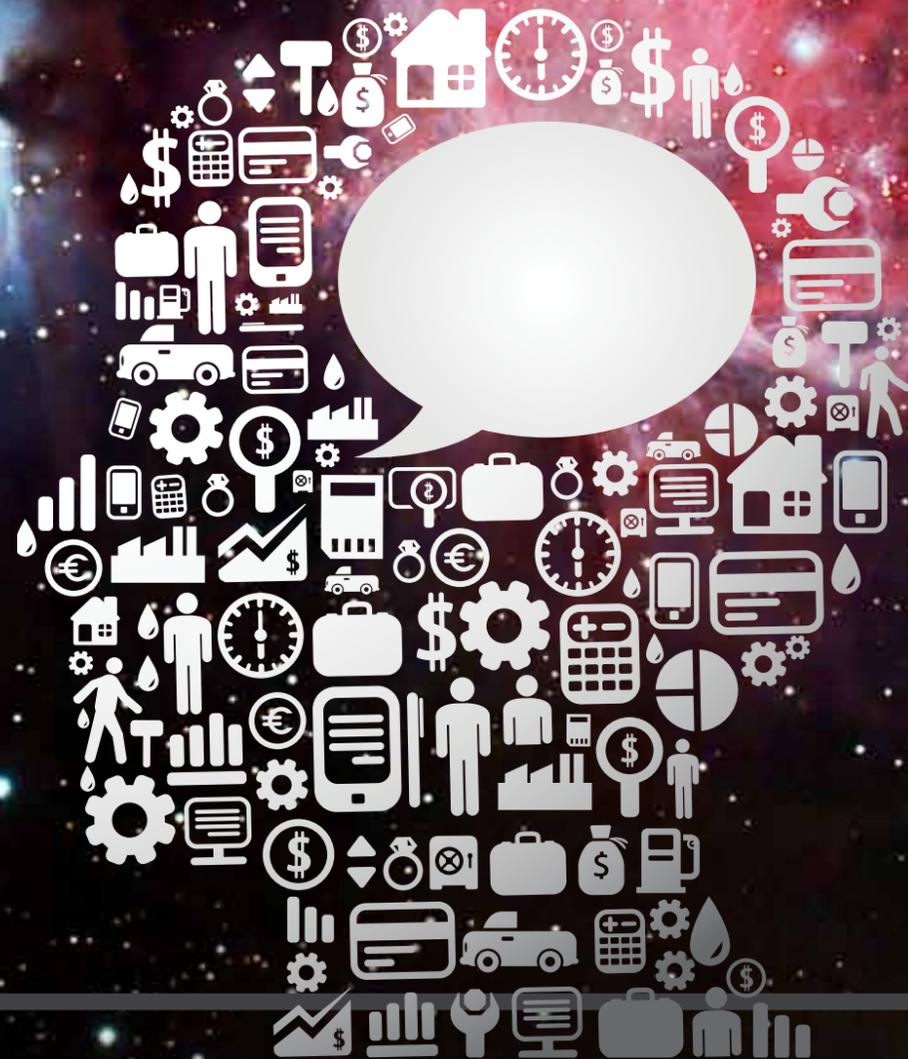
www.apjce.org/

# A FEW THOUGHTS ON INFORMATION

# RATTLING

## AROUND MY CRANIUM

By Michael True  
Director of the Internship  
Center at Messiah College



### THE RIVER OF INFORMATION

I just received my trial issue of *Mental Floss* magazine. Its pages are filled with trivia of every sort. A sampling of article titles gives you a small taste of the feast of information it offers: Everything You Need To Know About Mount Rushmore, The Man Who Cracked The Home Run Code, Anatomy of a Political Campaign, How to Find Sunken Treasure, The Paperback Revolution, The Golden Lobes, Human-Chicken Relations Prize, and Oktoberfest-Tip #1 – Feed the Bacteria. Sounds wild and crazy, doesn't it? For me, this zany magazine of facts represents two sides to the same coin of an issue in our culture... the plethora of information.

On the one hand, information is now more readily available than ever before, which is a good thing. You can look up information on just about any topic, anywhere, anytime, and find something relevant to your request. Computers of all sizes – desktop, tablet, smartphone – are the most common means I use. But radio (such as iHeart internet radio), television, magazines, books, bulletin boards, and more are still viable conduits. Following dinner at our home recently, my wife and I walked our guests outside to say our goodbyes. We looked up at the stars and one of them said, "There is Orion's belt." As he pointed out the location, I told him I didn't think that was correct. He disagreed. "Hold on, let me grab my iPad," I said. Exiting the house with my info tool in hand, I held my iPad to the sky. The app called Planets allows one to enjoy a 3-D view of the stars using the iPad's built-in GPS. It displays the exact name and location of the stars and planets wherever you point it. We were able to determine that Orion's belt was nowhere near where they thought it was. My intent wasn't to embarrass our guests. I just wanted to know the correct location of those three stars. Information is, indeed, literally at our fingertips.

The flip side of the coin is...information is now more readily available than ever before, and it's not such a good thing. It's everywhere. We are inundated by it. For instance, it used to be that one would go to a professional conference annually to hear keynote speakers and attend workshops. The professional association would mail a peer-reviewed journal or magazine. Those resources were part of the river of information available to a person. And then one would have time to process the nuggets of insight - post-conference or following the reading of a journal article. Time to think. Time to slowly digest what one has just taken in. Sounds delightful, doesn't it?

Today that river of help has new streams feeding it – email, listservs, LinkedIn groups, webinars, and Skype groups to name a few. Email, as you well know, is a stream in which you can drown. I was born November 18, 1954. That makes me 58 years old.

Am I just bemoaning this whole information overload thing because I'm older? Honestly, I don't think so, if my conversations with colleagues are any reflection. My fellow bemoaners talk about the overload of information, decisions that have to be made today, and the immediacy of response required in a social media, sound bite-driven world.

## MIND MORPH

On top of the glut of information is how our primary information source, the internet, is affecting us. I'm in the process of reading *The Shallows: What the Internet is Doing to Our Brains*. The author, Nicholas Carr, had me hooked in the first few pages when he talked about his own life. He and I are experiencing the same thing. Reading books has always been a pleasure for him, but in the last few years he has read fewer and fewer of them. They are harder for him to read, because he has grown accustomed to droplets of information on the web and because clicking through link after link satisfies his craving to know more in a shorter timeframe. His brain (and ours) is changing, both psychologically and physically, as he documents.

## SUGGESTIONS

What should we do about the amount and sources of information we are faced with each day? One thing is we shouldn't throw the baby out with the bath water.

*I'm not arguing for hiding in a cave without an electrical socket and wireless connection. Technology is a tool. We should use it wisely. The question becomes – "What information holds the best value for the time I have to invest in it?"*

That's no easy question, but one which we need to ask ourselves. Your answer(s) may be different than mine. As information sources grow, we need to evaluate their efficacy. Those that muddy the waters need to be stopped

with the dam of "unsubscribe". There are some organizations offering webinars, for instance, which send out emails once or twice a week to promote their services. I'm almost to the point of unsubscribing from all their lists because I'm tired of the repeated information. CEIA makes good use of electronic means to distribute their resources, but they do this while also offering excellent conferences at reasonable prices, which leads to my next point.

*We need to be physically connected with each other now more than ever.*

There is nothing more satisfying and helpful than to meet and talk face-to-face. It is where: ideas are fleshed out over a meal, one can give and receive advice, resources are shared, concepts are formulated, friendships are begun and renewed, and colleagues rejoice and commiserate with each other. So...this is a not-so-subtle plug for the CEIA annual conference at Universal Studios Orlando (April 14-16, 2013) and for the many regional conferences held in the U.S. and Canada this coming year. Get to know your colleagues by meeting with them in person!

## INFORMATION AND RESEARCH

During the past 21 years I have had colleagues ask me privately, and pose questions publicly in various forums, about information related to any number of topics. Many of them emanate from the need for research data and its analysis. Examples of questions I've come across: Are students participating in cooperative education and internships more likely to remain in college (retention)?

Are they more likely to graduate (completion rate)? What are the key factors for success in a work/learning arrangement? Do students who participate in a weekly internship/co-op class, which runs concurrently with their work experience, engage more deeply in reflection, resulting in professional growth? What characteristics are employers seeking in new hires? What impact do cooperative education and internships have on student learning and employment? Which schools offer non-credit internships? What are the various ways faculty are compensated for overseeing co-op and internship students? What is the starting salary for an assistant director in a large urban setting? You get the idea.

Various organizations and individuals provide some good data related to questions like the ones mentioned above – CEIA, NACE, InternBridge, and Phil Gardner at the Collegiate Employment Research Institute. Many schools conduct assessment and have some very useful data to share, but no one to my knowledge has aggregated that data across institutions.

Research takes time, effort, and...cooperation!

*Not everyone will compose a good research instrument, send it out, analyze the results and then publicize the findings. But all of us can participate by filling out surveys. If we are not willing to take the time to participate in surveys, then we won't have good data to guide us and assist us in our everyday tasks.*

## NOT TOTALLY USELESS INFORMATION

As I conclude, allow me to floss your brain with this tidbit from Mental Floss magazine. "The post-lunch slump isn't just a symptom of a full belly; at around 2 p.m., your body temperature starts to drop the same way it does at night. Australian researchers found that a 10-minute power nap is the most effective way of combating the mid-afternoon slump."

Now that's useful information! You have my permission to actually implement this mid-day rescue at work to rejuvenate your mind and body and to more effectively discern quality sources of information and to handle the mighty river of information that is sweeping us along. :)

*Michael True is Director of the Internship Center at Messiah College in Grantham, PA. He was honored at CEIA's 2012 conference with the Dean Herman Schneider Educator of the Year Award.*

[mtrue@messiah.edu](mailto:mtrue@messiah.edu) / 717-796-5099 x1

# WHY IS RESEARCH IMPORTANT TO THE PRACTITIONER?

By Dr. Cheryl Cates, University of Cincinnati

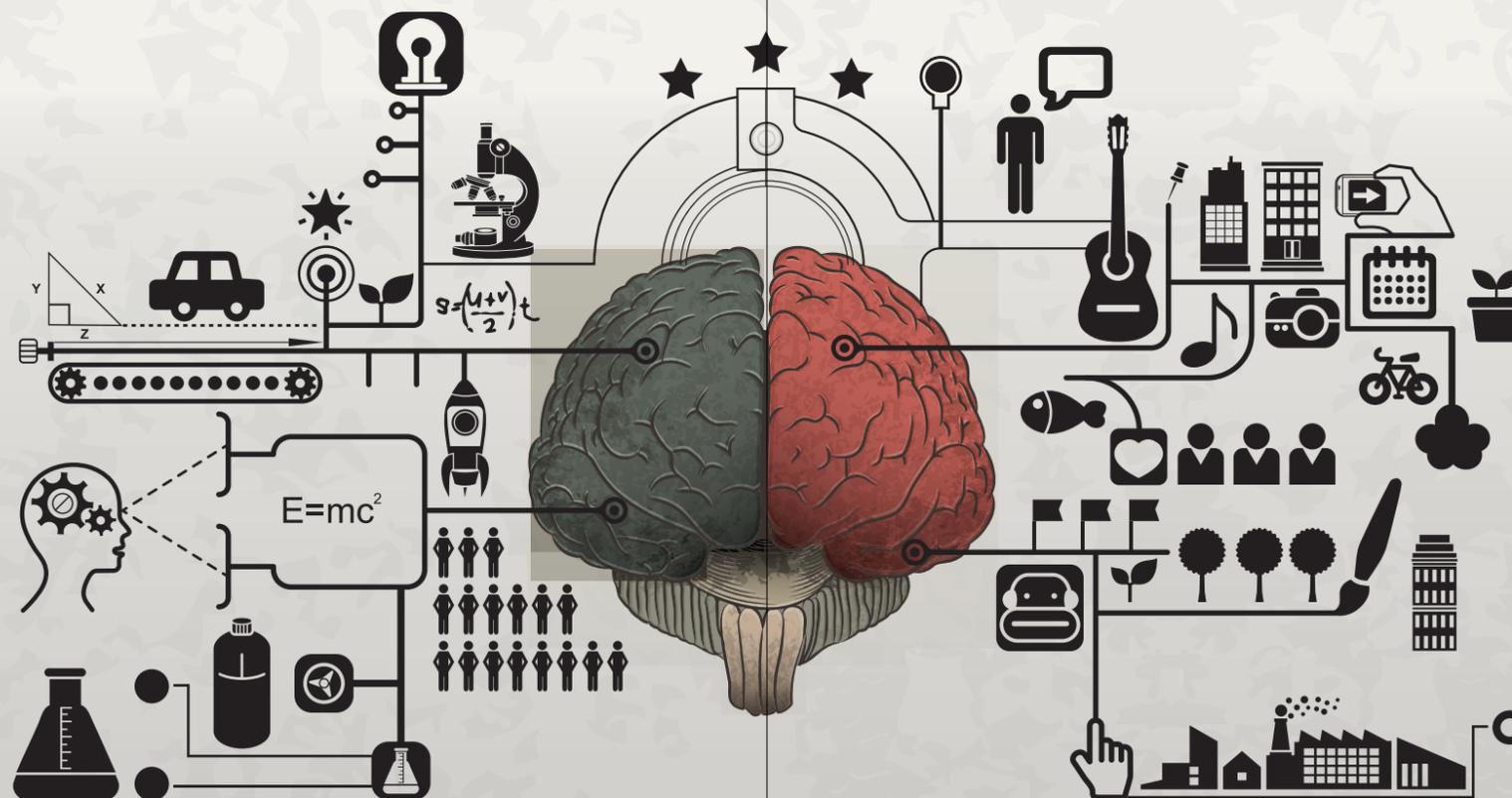
The following article is based on the chapter *Theories of Learning in Cooperative Education* written by Chris Eames, University of Waikato and Cheryl Cates, University of Cincinnati which appears in the *International Handbook for Cooperative and Work-Integrated Education: International Perspectives of Theory, Research and Practice* (2nd Edition pp. 41-52).

**View Table of Contents:** [www.waceinc.org/pdf/Handbook%20TOC.pdf](http://www.waceinc.org/pdf/Handbook%20TOC.pdf)

**To order:** [www.waceinc.org/handbook\\_orderform.html](http://www.waceinc.org/handbook_orderform.html)

Most co-op practitioners work in higher education where research is the intellectual capital of their institution. So **an understanding of the applicable research regarding how students learn can not only help to inform your decision making but it can also help you explain why your program operates the way that it does in a way that will garner the respect of your faculty colleagues.**

If you are building a new program from the ground up, you should be building around the relevant theories of how students learn. If you are joining an existing program, ideally your predecessor has already taken this step for you but that doesn't mean that you won't be called upon at some point to explain why your program operates the way that it does. **Being able to speak intelligently about how programmatic offerings lead to maximized student learning will empower you as a campus leader in experiential learning. Furthermore it will allow you to be able to examine your program from the standpoint of continuous improvement, which is a critical component of success.**



The focus on student learning and student reflection provide a barometer against which your efforts can be judged and enhanced. While we all recognize that experiential learning programs serve a variety of key stakeholders, **it is crucial to have a sense of your “true north” which is quite appropriately student learning for the vast majority of programs.**

As employers try to understand why your rules and processes are what they are, being able to refer to how you have build the program around the research on student learning is one way to ensure that you have their acceptance. While more limited, there is also research from the employer perspective that could help employers maximize their own return on investment from hiring co-op and internship students. Being able to help employers improve their own programs is also a key strategy for the co-op practitioner.

Finally, orientation of students to your experiential learning program is critical to their success. By giving them some insights that would maximize their own learning and encouraging them to select positions that fit those insights, you can help your students help themselves.

## SO HOW DO STUDENTS LEARN?

Theories abound on how students learn with some that examine the learning process from a systemic point of view and others that look at individual aspects of learning. By examining a few of the more popular theories, the practitioner can gain insight into the process of educating the student.

### Robert Gagne's Model of Information Processing

Through cooperative education and internships students develop a sense of what information will be most useful to them and devote more attention to that information. Robert Gagne's Model of Information Processing is a useful theory for the co-op practitioner to understand. This model proposes seven internal processes that are necessary for students to achieve successful learning:

#### 1) ATTENTION

Students are bombarded by messages yet at any given moment the individual directs his/her attention to only a few of the stimuli attacking the five physical senses. Successful learning requires that the student selectively focus his/her attention on the information to be learned.

#### 2) SELECTIVE PERCEPTION

Students notice some stimuli and ignore others. Information that has been perceived can be stored in short-term memory or long-term memory. Information first enters short-term memory which can only store a few items at any one time. As new information enters short-term memory it pushes out ideas that have not been transferred to long-term memory.

#### 3) CODING

So shift an idea from short-term memory to long-term memory a student must actively code this information. This requires that the learner act upon the data in some way. One of the most effective ways to code information is to place this information into an existing cognitive structure. By actively rearranging

ideas and constructing new patterns of ideas the student creates a mental map of interrelated information called a cognitive structure. Cognitive structure is a set of ideas, concepts and generalizations built upon facts. Students who actively relate an incoming idea to previously acquired knowledge understand the meaning of the new information. When new information is linked to appropriate abstractions already learned, the student's cognitive structure is enriched thereby enabling the student to analyze a situation and solve problems related to that area.

#### 4) RETRIEVAL

To be useful, information in long-term memory must be accessible. The process of finding stored information and bringing it to consciousness is retrieval. Successful retrieval depends on the successful coding and the learner's retrieval strategies. Information which has been meaningfully coded in the first place can usually be retrieved. When an idea is part of a larger cognitive map, a student can start at any point on the map and eventually locate and retrieve that particular piece of information.

#### 5) RESPONSE GENERATION

Information that can be retrieved is available for response generation. A response is the action a student is capable of performing. It is during this process that a student creates original knowledge and solutions to problems. Students use knowledge to initiate and guide their behavior and that behavior then becomes a reflection of what has been learned.

#### 6) COGNITIVE STRATEGIES

Surrounding each of these five stages in the processing of information is the student's cognitive strategy. Cognitive strategies are internal decisions which students use to guide or monitor the other processes involved in learning. Another term for cognitive strategy is learning style.

#### 7) EXPECTANCY

This refers to the sense of purpose a student has for an information-processing task and influences all aspects of the learning process. Expectancies set a context that influences how students interpret ideas, what ideas they perceive as worthy of attention, and how to interrelate those ideas.

Examining this model from the standpoint of cooperative education and internships, there may be several conditions in these models which help students more effectively process information they acquire both on the job and in the classroom. Students are more likely to devote their attention and to selectively perceive those messages which they feel are most important. Through their experiences students develop a sense of what information will be useful to them in their careers. When they return to the classroom they are better able to discern which pieces of information are most important and to focus their attention on those areas. That information can be more easily coded into the students' cognitive structure if the student has a well-developed mental map of inter-related information. A co-op or intern will have the chance to see classroom theories in use at the work site. So an intern or co-op student should have a more highly developed map. Proper coding of information is critical in the retrieval of that information. Interns and co-op students with a well-developed cognitive structure can more easily retrieve information and use that information in response generation. By using that information in the performance of action the student creates original knowledge and solutions to problems. And each of these information-processing stages are influenced by the student's cognitive strategy and expectancy. Interns and co-op students who have been exposed to the realities of the field for which they are preparing have a greater sense of purpose for the information that they learn in the classroom. This expectancy guides the entire learning process.

## Howard Gardner's Theory of Multiple Intelligences

Under a cooperative education / internship system, students are allowed to express various types of learning styles and strategies through their work experience. Students are able to find the type of position that best fits their individual thinking patterns, which also tends to make them more successful on the job. According to Howard Gardner's Theory of Multiple Intelligences, individual learners are applying eight distinct sets of abilities or intelligences which work together to create learning.

#### 1) LINGUISTIC INTELLIGENCE

The capacity to use words effectively either orally or in writing. This type of intelligence is highly developed in storytellers, orators, politicians, playwrights, editors and journalists.

#### 2) LOGICAL-MATHEMATICAL INTELLIGENCE

The capacity to use numbers effectively and to reason well. This type of intelligence is highly developed in mathematicians, accountants, statisticians, scientists and computer programmers.

#### 3) MUSICAL INTELLIGENCE

The capacity to perceive, discriminate, transform, and express musical forms. This type of intelligence is highly developed in musical performers, composers and critics.

#### 4) SPATIAL INTELLIGENCE

The ability to perceive the visual-spatial world accurately and to perform transactions upon one's perceptions. This type of intelligence is highly developed in interior designers, architects, artists and inventors.

#### 5) INTERPERSONAL INTELLIGENCE

The ability to perceive and make distinctions in mood, intentions, motivations, and feelings of other people. This type of intelligence is highly developed in counselors, salespeople, teachers and politicians.

#### 6) INTRAPERSONAL INTELLIGENCE

The ability to act adaptively on the basis of self-knowledge. This intelligence is exhibited by people who are described as "having their act together."

#### 7) BODILY-KINESTHETIC INTELLIGENCE

The ability to use one's body to express things or one's hands to produce or transform things. This intelligence is highly developed in actors, athletes, sculptors, mechanics, and surgeons.

#### 8) NATURALISTIC INTELLIGENCE

The ability to see connections and patterns within the natural world and to group and classify items. This intelligence is highly developed in farmers, geologists, and meteorologists.

According to Gardner, the traditional education system "assumes that everyone can learn the same materials in the same way and that a uniform, universal measure suffices to test student learning." But our current educational system relies heavily on linguistic and logical-mathematical measures of intelligence. Through all forms of work integrated learning students express any combination of their multiple intelligences through a variety of work experiences which draw upon differing cognitive processes. They explore their own strengths and discover their own abilities in these eight areas.

## Jean Piaget's Theory of Development of Logic and Reasoning Through Adulthood

As students are developing reasoning strategies related to the classroom they are also developing reasoning strategies related to industry. Jean Piaget developed a theory that traces the development of logic and reasoning through adulthood. He proposes that logical thinking occurs when the learner simultaneously coordinates an operation and its inverse and predicts the changes that will likely occur. There are three fundamental processes in the development of logical thinking.

### 1) ASSIMILATION

The integration of external elements into the learner's internal structures

### 2) ACCOMMODATION

Adjustments in the learner's internal structures and qualitative transformations in thinking

### 3) EQUILIBRIUM

The set of processes that maintains cognitive organization during the learner's changes in thinking

As students develop the habit of logical thinking, they will assimilate external conditions into their internal structures. That assimilation process will cause adjustments in the learner's internal structures known as accommodation. And throughout the process, the students' equilibrium will maintain organization during the learner's changes in thinking.

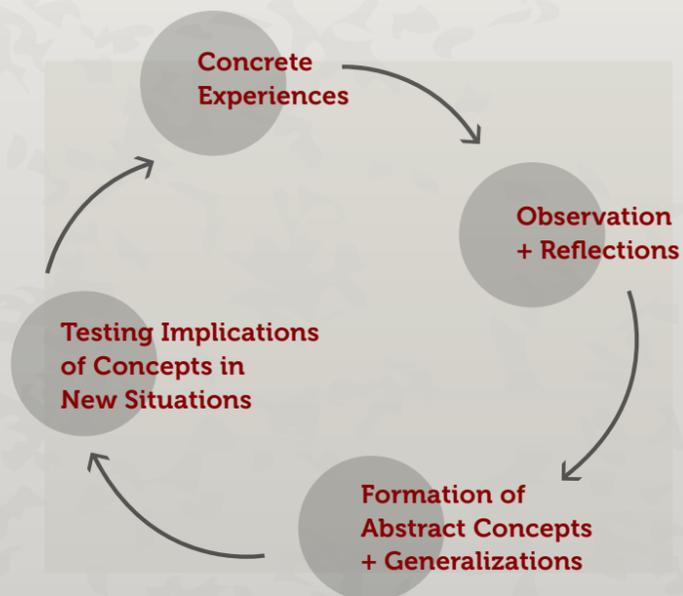
For the internship or cooperative education student, the processes of assimilation, accommodation and equilibrium are naturally at work. This simultaneous development enables students to maintain the organization of their cognitive structure more easily. It also explains why co-op students and interns make the transition to industry more effectively upon graduation whereas other students must undergo a significant adjustment period. The intern or co-op

student maintains equilibrium while in the process of developing logical reasoning strategies related to both classroom and industry. Other students develop the logic of the classroom and upon graduation, must radically shift to the logic of industry. This adjustment to the student's internal structure and subsequent change in thinking creates a state of disequilibrium which explains the transition problems employers often describe for students who lack any relevant work experience prior to graduation.

## David Kolb's Experiential Learning Model

Perhaps one of the most familiar learning theories to practitioner is Kolb's Experiential Learning Model. It describes the learning process as a four-stage cycle which students move through on a continuing basis:

- 1 Concrete experience followed by,
- 2 Observation and reflection which lead to,
- 3 The formation of abstract concepts and generalizations which lead to,
- 4 Hypotheses to be tested in future action which in turn leads to concrete experience.



Within this model of the learning process, the learning cycle is constantly recurring. Learners continuously test our concepts in experience and modify them as a result of our observation of the experience. The learning is also governed by the individual learner's needs and goals. We seek experiences which are related to our goals, interpret those experiences in light of our goals, and form concepts and test implications of these concepts related to our needs and goals. This learning cycle would therefore be at its most efficient when personal goals and objectives are clear.

Of all the learning theories, David Kolb's may be the most relevant to cooperative education, and to a lesser degree, to the one time internship. This model describes the learning cycle quite eloquently. Students will have concrete experiences through their work

assignment. Both on the job and when they return to school they will be given the opportunity to observe and reflect upon those experiences. They will be asked to complete an assignment that is designed to heighten the student's observation while on the job and to reflect upon these experiences. Both the experience itself and the subsequent focusing assignment will give students the opportunity to form abstract concepts and generalizations that they will then test in subsequent experiences. Due to the ongoing nature of cooperative education, these subsequent experiences will likely come very quickly in the form of additional co-op assignments. For a one time internship, the cycle has one iteration but it is still important to consider as its impact for even one cycle can be profound.

**Students who are required to engage in reflective learning through your program structure will benefit so it's important to understand the learning cycle and build your program around its foundation. With a better understanding of how students learn and the role that cooperative education and internship programs play in student learning, we can begin to focus a methodology to put these theories into practice. As work integrated education professionals we must endeavor not only to provide the opportunity for students to learn, but also to focus on the quality of that learning.**

## Exploring some current issues for Cooperative Education

KARSTEN E. ZEGWAARD<sup>1</sup>

University of Waikato, New Zealand

RICHARD K. COLL<sup>2</sup>

University of Waikato, New Zealand

The following article was published in the *Journal of Cooperative Education and Internships*, Volume 45, Issue 2 in 2011 and is available at [www.ceiainc.org/journal.asp](http://www.ceiainc.org/journal.asp)

### Abstract

As cooperative education (co-op) has recently surpassed 100 years, it is worthwhile to reflect on the challenges co-op faced and responded to, as co-op has matured and new challenges developed. Much concern was raised in the past of a lack of accepted theoretical learning framework for learning in co-op, however, there has been advances made since that attempt to capture the complexities of what is co-op. Over the last so many years, diverse range of terms has developed, along with multiple definitions, to loosely describe what may (or perhaps may not) be co-op, possibly a reflection of the diversity of practices of co-op across the disciplines and attempts to be inclusive. Lastly, we would argue that even though co-op often claims to have integration of knowledge between the workplace and educational institutions, the claims are often not well supported, how integration may occur seems to be poorly understood, and here still lays a challenge for the co-op community.

**Keywords:** Research, work-integrated education, terminologies, integration.

### Introduction

As cooperative education has entered the 21st century, it is worthwhile to reflect how the field has developed, grown, and matured. Literature discussing the early formative years of co-op, particularly in the US, are well explored by Sovilla and Varty (2011, and citations within). These authors go on to describe how Herman Schneider in 1906 at the University of Cincinnati launched the first co-op program, no doubt drawing upon earlier work experience models such as apprenticeships, mentorships, etc, to develop his co-op model originally applied to his engineering students. With the aim of bridging the gap between theory and practice, on-campus and off-campus learning, it was well timed with the US industrial expansion. The growth of co-op occurred quickly in the US and, under a variety of names but essentially holding onto the same core values, spread internationally. Today co-op presents itself well established internationally and across a diverse range of disciplines. Of recent years, much advancement in research and drawing together a comprehensive body of literature has occurred, as well as some new challenges not present in the earlier years of co-op. This paper will explore the state of our literature and research, acceptance and inclusivity of co-op, and identify that work is still required in areas such as integration.

<sup>1</sup> Senior lecturer in cooperative education and current editor-in-chief of the *Asia-Pacific Journal of Cooperative Education*

<sup>2</sup> Professor of cooperative education and former editor-in-chief of the *Asia-Pacific Journal of Cooperative Education* and the *Journal of Cooperative Education & Internship*

### Maturation of the literature

Bartkus and Stull (1997) described the co-op literature as being sketchy, limited, and uncertain, with a focus predominantly on program development and the practice of co-op, essentially confirming views held by Wilson (1988) ten years earlier. However, Bartkus and Higgs (2011), giving an objective overview on research in co-op, noted that the state of the co-op literature is now stronger than when assessed in 2004 (Bartkus & Stull, 2004), with a greater focus on theoretical framework development. It is our assessment also that co-op has matured considerably over the last decade or so, not only in development of its theoretical underpinnings, but also how co-op advances and disseminates new knowledge. With that advancement has come a growing body of research literature readily available for co-op, the setting up of research centres focussed on advancing co-op (e.g., WACE's Institute for Global and Experiential Education, and institutional level co-op research units and centres).

A sure measure of maturation of co-op is both the quantity and quality of readily available literature, and that the research realm now is substantive enough to allow two central co-op journals serving the co-op community; the *Journal of Cooperative Education and Internships* (JCEI; [www.ceiainc.org/journal.asp](http://www.ceiainc.org/journal.asp)) and the *Asia-Pacific Journal of Cooperative Education* (APJCE; [www.apjce.org](http://www.apjce.org)). Both these journals have an extensive body of freely available, research-informed literature. JCEI began in 1964 and has a long history of literature available. The recent challenges this journal faced has prompted a transition into new structure and becoming an open access journal, and looks to provide a promising future. The APJCE first publication run was in 2000, and now has more than 130 articles with a steadily increasing number per year. APJCE originally began with the intention, as the name suggests, focussing on the Asia-Pacific area, and encouraging developing researchers into publishing. However, the last five years the journal has grown well beyond the Asia-Pacific region and now is a truly international journal.

In addition to the two central co-op journals, several relevant journals with a strong workplace learning focus, exist serving fields on the periphery of the co-op sphere, namely *Journal of Workplace Learning*, *Reflective Practice*, *Journal of Vocational Education and Training*, and *Journal of Vocational Education Research*. Furthermore, increasingly co-op orientated literature is appearing in discipline specific educational journals, for example; Coll and Zegwaard (2006) in *Research in Science and Technological Education*, Eames and Bell (2005) in *Canadian Journal of Science, Mathematics and Technology Education*, Schafer and Castellano (2005) in *Journal of Criminal Justice Education*, Tully, Kropf and Price (1993) in *Journal of Social Work Education*, and Zegwaard and Coll (2011) in *Science Education International*. Bartkus (2007) and Coll and Kalnins (2009) go on to list more than 100 other journals, with examples, containing co-op focussed literature.

Recently several significant publications drawing together established literature and focussing on best practice has become available. For example, the much expanded second edition of the *International Handbook for Cooperative and Work-integrated Education* (Coll & Zegwaard, 2011b), which presents 42 chapters giving a comprehensive overview of the

co-op literature, learning theories, common models of practices in a range of disciplines, and topical issues currently pertinent to co-op. The *Handbook for Research in Cooperative Education and Internships* (Linn, Howard, & Miller, 2004) still serves as a valuable resource to co-op researchers, and recently commissioned reports on modelling best practice by Orrell (2011), Winberg et al. (2011) and by Martin and Hughes (2011a, 2011b, 2011c) and Martin, Rees and Edwards (2011) also make significant contribution to the best practice of co-op. Two national associations have undertaken national scoping studies which shed informative light on current practice (New Zealand: Coll et al., 2009; Australia: Patrick et al., 2009), noting that there is great diversity of practice, however, little in the way of integration nor structures to facilitate reflective learning. Several co-op association (e.g., WACE, NZACE, ACEN) also produce refereed proceedings from their annual conferences. We would argue that conference proceedings should be given greater prominence and accessibility than currently, and with appropriate refereeing and editing will serve as a valuable resource of information of current topical works that may not become journal articles.

#### Further research in cooperative education

There often is call for further research in co-op and one we would certainly echo. However, we need to recognize that over the last 25 years we have built up this comprehensive body of research-informed literature and advanced our understanding of co-op. The breadth of this is observed in the second edition of the International Handbook, and confirmed by a quick glance at the growth of APJCE, JCEI, and the journals on the periphery of the co-op realm. The amount of literature cited in the chapters of the Handbook, much of which makes citations to research from various sources beyond co-op, is impressive (cf., Baker, Caldicott, & Spowart, 2011; Bartkus & Higgs, 2011; Dressler & Keeling, 2011; Eames & Cates, 2011). Both the commissioned reviews from Bartkus (2007) and Coll and Kalnins (2009) claim that recent research in co-op now has a solid theoretical base. We suggest that the co-op community needs to reflect on these works and develop a greater shared understanding of the state of our research background. A comprehensive shared understanding across the co-op community will avoid revisiting research and discussion around issues where we already have established understanding, and instead move research direction to new areas and to new levels. The 2010 and 2011 conferences held by WACE and ACEN included helpful research roundtables to drive and focus a collaborative research direction. The broad areas we see as important to focus research on are student learning, assessment of student learning, and the nature of the relationships between the co-op partners.

#### Acceptance and inclusiveness

Increasingly we are seeing educational models include workplace experiences as part of the qualification requirements, an indication of acceptance by academia. The second edition of the Handbook (2011) gives examples from 18 different disciplines that have well established practices of co-op, some of these fields having long established histories such as medicine, engineering, and teaching. Albeit, the issue of academic acceptance will

no doubt be an ongoing issue for some time, international trending suggests strongly that co-op (even if not under the same name) is getting considerable traction. Considering at the same time our substantive body of literature to support our practice, we should stop being defensive about co-op. As increasingly industry are demanding new-comers to be work-ready and have at least a bachelors level qualification, universities are responding by introducing or increasing the work experience components to their degrees. Significant development has taken place particularly in Australia (Patrick & Kay, 2011), where virtually all tertiary educational institutions have co-op (under the term WIL; work-integrated learning) as a significant part of their educational delivery, with some universities attempting to be pure co-op universities.

Perhaps a spin-off from this increasing diversity of disciplines practicing co-op, is the proliferation of terms used to describe, in board terms, what is essentially co-op (see discussion below). With this increasing diversity of practice of incorporating work experience components into a wide range of disciplines, questions can be asked 'what is co-op, and what is not?'. Some staunch stalwarts of co-op may argue for narrow definitions of co-op, however, we would argue that we need to be more inclusive. Narrow definitions of co-op are not helpful, may have contributed to the proliferation of terms, and could even restrict the realm in which co-op research is undertaken. Much valuable and informative work has been, and still is, carried out in the realms just beyond these narrow definitions of co-op.

#### Use of terminologies

There has been a shift in the use of terms in co-op and WIL, and with the diversification, this shift appears to be ongoing. The terms co-op and WIL are often used interchangeably and some literature appear to ascribed almost synonymous meanings – even though some argue, probably correctly, that they are not truly synonymous. It is somewhat concerning that there is a proliferation of terms – some terms having been around some time; e.g., work-based learning, workplace learning, professional training, industry engaged learning, career and technical education, internships, collaborative education, experiential education, experiential learning (WIL), industry based learning, vocational education and training, fieldwork education, service learning, community-based learning, practicum, and work exchanges. We would argue that there also is little shared agreement of the meaning of these terms. Recently, WACE has begun using the term work-integrated education rather than work-integrated learning, since the term education is more holistic (includes both learning & teaching), an argument we find convincing, even if the acronym is perhaps somewhat unfortunate. The term work-integrated education may present a useful umbrella term, overcoming the challenge of diversity of terms. Groenewald, Drysdale, Chiupka and Johnston (2011) explore the definitions to co-op and present a possible taxonomy of terms, which is still ongoing ambitious work by Drysdale and Johnstone. There should, in addition, be an increased focus on the *defining features* of co-op/WIL (or whatever term one chooses to use). These defining features may include; exposure to a professional and relevant workplace (community of practice), of a duration alongside practitioners (old

timers) long enough for enculturation to occur (the ideal duration being a topic of much need of discussion), where the tasks undertaken are authentic, relevant, meaningful, and purposeful, where students are able to learn the workplace norms, culture, and understand/develop professional identity, and integrating that knowledge into their on-campus learning.

### Integration and cooperative education

Integration is talked about as being fundamental to any co-op program (Coll, et al., 2009; Coll & Zegwaard, 2011a; Johnston, 2011), and the term work-integrated learning/education, implies we are automatically talking about such integration as occurring. However, even though integration is identified as being fundamental (Allen & Peach, 2007), there is uncertainty within the co-op community about what is meant by the term, how we achieve this 'integration', or even if we would recognize it when it has been achieved. Therefore, we believe there is much debate (and research) yet to be had about achieving integration, advancing pedagogy, and curricular development.

Of concern is the unsupported notion that having a mere add-on work-experience program, tacked to the side of a degree or other program somehow constitutes co-op or WIL. Many of these programs exist. The assumption made by these programs is that by providing such experience, that learning will automatically occur (therefore assumed to be adding value to student learning experience), however, this is unfounded and not supported by the literature. At best some random learning may occur; however, it is not planned, structured, nor an expected outcome (Coll & Zegwaard, 2011a; Eames & Cates, 2011; Garrick, 1998). The quality of the learning experience is not secured, and perhaps even the emphasis that the placement is a learning experience may not be present.

The slow drift of co-op becoming centralized and service-focused has come at the cost of research active co-op academics (Sovilla & Varty, 2011) who will likely have a better appreciation of structuring a learning experience and be informed by recent developments of understanding of the co-op learning process. However, whatever the structural or administrative role or label for the co-op practitioner, Coll and Eames (2000) argue what actually matters is that such staff see themselves as 'educators', and have familiarity with theories of learning and the learning process/education per se. In a co-op program as we conceptualize it here, they are involved in *education*, not just the administration of a work-based learning program. It is this role then, whatever its label, and wherever it is located within an educational institution, that is crucial. Emphasis needs to be placed on having co-op practitioners informed by literature and research active, and to be accepted as teachers and educators (Eames & Cates, 2011) rather than general (and often part-time) contract staff. A non-academic location for co-op within an educational institution is not conducive to the formulation of academic programs with rigorous curricular, that will result in desirable educational outcomes (Coll & Zegwaard, 2011a; Freeland, 2007).

### Conclusion

Co-op has achieved much since the earlier years of Schneider. We must reflect back on the developments over the years, particular the substantive body of literature now readily available, but also recognize that further research is required. We must continue to advocate for resources that enable us to be effective in delivering our programs, to conduct our research, and to advance best practice models. The onus is on co-op practitioners to make these substantive benefits of co-op programs known to all key stakeholders; students, colleagues, and managers in their institutions, and external stakeholders such as officials and governments. We also need to be encouraged that the educational endeavor we call co-op is well-founded in research, effective, and grants positive and transformative life changing experiences for students that partake in our programs.

---

KARSTEN E. ZEGWAARD

University of Waikato, New Zealand

RICHARD K. COLL

University of Waikato, New Zealand

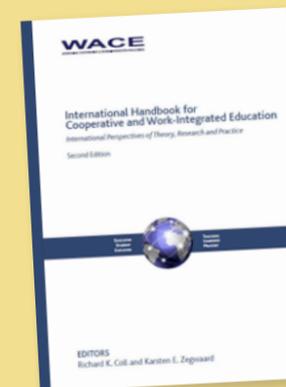
### References

- Allen, J. M., & Peach, D. (2007). Exploring connections between the in-field and on-campus components of a preservice teacher education program: A student perspective. *Asia-Pacific Journal of Cooperative Education*, 8(4), 23-36.
- Baker, L., Caldicott, J., & Spowart, J. (2011). Cooperative and work-integrated education in hospitality and tourism. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives on theory, research and practice* (2nd ed., pp. 219-227). Lowell, MA: World Association for Cooperative Education.
- Bartkus, K. R. (2007). A review and synthesis of scholarly research in cooperative education and internship: Part 1. An analysis of quantitative research published outside the Journal of Cooperative Education and Internships. *Journal of Cooperative Education and Internships*, 41(1), 56-96.
- Bartkus, K. R., & Higgs, J. (2011). Research in cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 73-84). Lowell, MA: World Association for Cooperative Education.
- Bartkus, K. R., & Stull, W. A. (1997). Some thoughts about research in cooperative education. *Journal of Cooperative Education*, 32, 7-16.
- Bartkus, K. R., & Stull, W. A. (2004). Research in cooperative education. In R. K. Coll & C. Eames (Eds.), *International handbook for cooperative education: An international perspective of the theory, research and practice of work-integrated learning* (pp. 67-81). Boston, MA: World Association for Cooperative Education.
- Coll, R. K., & Eames, C. (2000). The role of the placement coordinator: An alternative model. *Asia-Pacific Journal of Cooperative Education*, 1(1), 9-14.
- Coll, R. K., Eames, C., Paku, L., Lay, M., Ayling, D., Hodges, D., Ram, S., Bhat, R., Fleming, J., Ferkins, L., Wiersma, C., & Martin, A. (2009). An exploration of the pedagogies employed to integrate knowledge in work-integrated learning in New Zealand higher education institutions (pp. 95). Wellington, New Zealand: Teaching and Learning Research Initiative.

- Coll, R. K., & Kalnins, T. (2009). A critical analysis of interpretive research studies in cooperative education and internships. *Journal of Cooperative Education and Internships*, 43(1), 1-14.
- Coll, R. K., & Zegwaard, K. E. (2006). Perceptions of desirable graduate competencies for science and technology new graduates. *Research in Science and Technological Education*, 24(1), 29-58.
- Coll, R. K., & Zegwaard, K. E. (2011a). The integration of knowledge in cooperative and work-integrated education programs. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 297-304). Lowell, MA: World Association for Cooperative Education.
- Coll, R. K., & Zegwaard, K. E. (Eds.). (2011b). *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice*. Lowell, MA: World Association for Cooperative Education.
- Dressler, S., & Keeling, A. E. (2011). Benefits of cooperative and work-integrated education for students. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 261-275). Lowell, MA: World Association for Cooperative Education.
- Eames, C., & Bell, B. (2005). Using sociocultural views of learning to investigate the enculturation of students into the scientific community through work placements. *Canadian Journal of Science, Mathematics and Technology Education*, 5(1), 153-169.
- Eames, C., & Cates, C. (2011). Theories of learning in cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 41-52). Lowell, MA: World Association for Cooperative Education.
- Freeland, R. M. (2007, June). *Keynote address: Reflections on Co-op at Northeastern: Crisis, change, and the pursuit of quality*. In the proceedings of the 15th World Conference on Cooperative Education, Singapore.
- Garrick, J. (1998). Informal learning in corporate workplaces. *Human Resource Development Quarterly*, 9(2), 129-144.
- Groenewald, T., Drysdale, M., Chiupka, C., & Johnston, N. (2011). Towards a definition and models of practice for cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 17-24). Lowell, MA: World Association for Cooperative Education.
- Johnston, N. (2011). Curriculum and curricular orientations in cooperative and work-integrated education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 305-311). Lowell, MA: World Association for Cooperative Education.
- Linn, P. L., Howard, A., & Miller, E. (Eds.). (2004). *Handbook for research in cooperative education and internships*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Martin, A. J., & Hughes, H. (2011a). *How to make the most of work-integrated learning: For academic supervisors*. Wellington, NZ: Ako Aotearoa.
- Martin, A. J., & Hughes, H. (2011b). *How to make the most of work-integrated learning: For students*. Wellington, NZ: Ako Aotearoa.
- Martin, A. J., & Hughes, H. (2011c). *How to make the most of work-integrated learning: For workplace supervisors*. Wellington, NZ: Ako Aotearoa.
- Martin, A. J., Rees, M., & Edwards, M. (2011). *Work-integrated learning: A template for good practice*. Wellington, NZ: Ako Aotearoa.
- Orrell, J. (2011). Good practice report: Work-integrated learning (pp. 83). Strawberry Hills, NSW, Australia: Australian Learning and Teaching Council.
- Patrick, C.-J., & Kay, J. (2011). Establishing a new national network for cooperative education. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 371-380). Lowell, MA: World Association for Cooperative Education.
- Patrick, C.-J., Peach, D., Pocknee, C., Webb, F., Fletcher, M., & Pretto, G. (2009). The WIL [Work Integrated Learning] report: A national scoping study. The final report to the Australian Learning and Teaching Council (ALTC) (pp. 111). Brisbane, Australia: Queensland University of Technology.
- Schafer, J. A., & Castellano, T. C. (2005). Academe versus academy: Faculty views on awarding academic credit for police training. *Journal of Criminal Justice Education*, 16(2), 300-317.

- Sovilla, E. S., & Varty, J. W. (2011). Cooperative and work-integrated education in the US, past and present: Some lessons learnt. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 3-15). Lowell, MA: World Association for Cooperative Education.
- Tully, C. T., Kropf, N. P., & Price, J. L. (1993). Is field a hard hat area? A study of violence in field placements. *Journal of Social Work Education*, 29(2), 191-199.
- Wilson, R. L. (1988). Research in cooperative education. *Journal of Cooperative Education*, 24(2-3), 77-89.
- Winberg, C., Engel-Hills, P., Garraway, J., & Jacobs, C. (2011). Work-integrated learning: Good practice guide (pp. 82). Pretoria, South Africa.
- Zegwaard, K. E., & Coll, R. K. (2011). Using cooperative and work-integrated education to provide career clarification. *Science Education International* 22(4), 282-291.

## Finding the Theory... **START HERE**



### **International Handbook for Cooperative and Work-Integrated Education: International Perspectives of Theory, Research and Practice (2nd Edition)**

**Editors: RICHARD K. COLL and KARSTEN E. ZEGWAARD**  
*University of Waikato, Hamilton, New Zealand*

The second edition of the *International Handbook for Cooperative Education* builds on the first edition, and is intended to become a major resource for cooperative education professionals worldwide. As a comprehensive resource it will appeal to placement coordinators, faculty, researchers, students, and employers. The book provides a broad coverage of cooperative education (co-op) and work-integrated learning (WIL) with an emphasis on practice – informed by research (where available).

(US \$ 80.00 — includes shipping and handling)

**View Table of Contents** [www.waceinc.org/pdf/Handbook%20TOC.pdf](http://www.waceinc.org/pdf/Handbook%20TOC.pdf)

**TO ORDER** [www.waceinc.org/handbook\\_orderform.html](http://www.waceinc.org/handbook_orderform.html)

### **Check out the World Association for Cooperative Education's website**

for a listing of the national co-op, internship and work-integrated learning national associations (links included). Check out what our colleagues from around the world are doing and what resources they have available on their sites.

[www.waceinc.org/associations.html](http://www.waceinc.org/associations.html)



# Does Co-operative Education play a role in Student Recruitment, Engagement and Success?

By Research and Initiatives Committee,  
Association for Co-operative Education,  
British Columbia/Yukon

In 2008/09, the Research and Initiatives Committee of the Association for Co-operative Education British Columbia/Yukon undertook a study that examined the model of Co-operative Education with respect to its role in institutional recruitment and retention and its role in student engagement and academic enhancement by analyzing data from a survey of British Columbia (BC) co-op students in 12 public post-secondary institutions.

*A full report on early findings from the study will be published in the forthcoming issue of the Journal of Cooperative Education and Internships. Presented here is a brief overview of the project and the questions it sought to answer.*

Administrators have found that the recruitment and retention of students attending post-secondary institutions in North America has become an increasingly important agenda item in recent years. Strategic enrollment management approaches have been adopted in response to a changing demographic landscape that make recruitment and retention of students to the post secondary environment increasingly competitive. Savvy administrators are looking for programs, strategies, and services that enhance student engagement and ultimately student success, as well as programs that give their institution a competitive edge in recruitment.



Despite a high proportion of co-op programs in BC post secondary institutions and growing participation within Canada in both the National Survey on Student Engagement and the College Survey on Student Engagement assessments, co-op has not been specifically studied vis-a-vis its contribution to enhancing the student experience. This study seeks to begin to address this gap by **exploring the role that co-op-based workplace learning can play in recruitment, retention, and the student experience.**

This research presented unique opportunities and challenges as a result of the newness of the area studied (no specific existing measurement tools), the large number of institutions involved, and the desired connections to the current Student Success and Strategic Enrollment Management institutional discourse. As a result, the project team made decisions to utilize a recognized theoretical framework (the National Survey of Student Engagement--NSSE) to guide the format and language used in our survey questions, to engage all interested institutions in the project (resulting in collaborating with 12 provincial colleges, universities, and institutes), and to model our commitment to research in the field by widely sharing the early findings.

We also experienced many learning outcomes that extended beyond the research questions including developing a better understanding about the limitations of our survey tool, the challenges of conducting research in this field, the process of collectively writing up our early findings and the limitations set by our volunteer resources on our ability to conduct further, deep level analysis on the data.

The study attempted to tackle several large, complex questions fundamental to our work, including:

- **What role does Co-op play in a student's decision to attend an institution (recruitment) and in their level of engagement with their institution (retention)?**
- **What factors influence a student's decision to participate in a Co-op program?**
- **How does participation in a co-op program relate to academic engagement?**

After conducting a primary level analysis, several early findings have emerged relating to co-op programs and recruitment to the institution, co-op and student engagement (and by extension retention) and the recruiting of co-op students into co-op programs. Among our findings, the study suggests that:

- 1) Co-op participation informed students' academic choices, helping them to align their academic and career goals, thereby enhancing overall student success.
- 2) It also points to the value of considering co-operative education as a critical feature of institutional student retention and recruitment strategies.

Find out more about these early findings and read the entire article at [www.ceiainc.org/journal](http://www.ceiainc.org/journal)

Interested individuals may also contact:

**Julie Walchli**, Committee Chair  
[julie.walchli@ubc.ca](mailto:julie.walchli@ubc.ca)

Research and Initiatives Committee  
Association for Co-operative Education,  
British Columbia/Yukon



#### COMMITTEE MEMBERS

**Earl Anderson** British Columbia Institute of Technology

**Larry Iles** Thompson Rivers University

**Nancy Johnston** Simon Fraser University

**Norah McRae** University of Victoria

**Nancy Reed** University of Victoria

**Julie Walchli** University of British Columbia

# RESEARCH BASIC: Developing Good Questions for a Study

By Tracey Bowen, Internship Coordinator & Lecturer, University of Toronto

No matter who we are or what we do, we all conduct research of some sort in order to make decisions throughout our daily interactions. Whether we ask questions about the best products or services to use, about our health and well-being or where we might travel, we gather information with a particular goal in mind. Research in the workplace is a common part of our decision making process and educational research has a long and diverse history. >

Research within the field of experiential education is increasing as many more institutions worldwide are developing co-op, internship and work-integrated programs at both the undergraduate and graduate levels. **Recent trends show an increasing number of program administrators and classroom instructors engaging in this research for a variety of purposes. No matter what context or type of program, one of the most important aspects of designing a research study is developing a good research question on which you will build your study foundation (methodology) and collect your data.**

In order to develop a good research question for investigation, several working questions must be answered in preparation. The first question focuses on the need to study phenomena within the field. What is it you need to know? Many research questions develop because of a feeling of “uncertainty about something in the population” (Cummings, Browner & Hulley, 2007, p. 17). However, there are several areas from which a topic may also emerge. Many researchers will find the impetus for their research question within current literature in their field: Gaps in the larger knowledge base, the need to replicate an existing experiment using a different sample population or within a different context provide the basis for new studies. **Research problems may also emerge from your daily work or interactions with clients, colleagues, students or administrators.** Possible topics might be the success of a particular program format from a student perspective (building the necessary skills to find a job-post graduation), from an employer’s perspective (new graduate readiness to enter the work force) and from an administration perspective (alignment of learning outcomes, effective assessment tools, student perceptions of professional behaviour or earning potential). All of these sample topic areas have the potential to challenge or facilitate understanding of perceptions, assumptions, process, program value, student skill levels and so on.

Another question to consider when designing a research study is who are your possible collaborators? New researchers in particular might partner with others both inside and outside their departments as a way of developing a study that will reach a larger

sample size, enrich the data collected and provide benefits to a larger constituency. Developing partnerships will also broaden your perspective on the problem or question to be examined. When thinking about potential partnerships, possible collaborations between program staff and faculty members, or program directors and employers, consider what they will gain from testing their program content, curriculum, design or industry appropriateness at the classroom, departmental, or industry levels. Who will benefit from what kind of information?

## GETTING STARTED

In her editorial for *Qualitative Health Research*, Janice Morse (1999) suggests an “Armchair Walkthrough” as a way of conceiving a research project. She comments that “Good research questions come from one’s own (and often unfortunate) experiences, from problems that have risen . . . from jarring contradictions or holes discovered in the literature. In sum, the researcher is never a blank slate” (p. 435). The Armchair Walkthrough is about imagining the whole project during the initial stages of formulating the research problem and the methodology that will facilitate examining the problem. Morse suggests this “envisioning” take the form of asking questions about *the* question: “If I ask *this* question, then I will need this or that kind of data, and to get to that, I will have to interview these people or observe this or that. On the other hand, if I ask *that* question, I will need to conduct observations and to interview [or survey] these groups of people” (p. 435). Morse’s Armchair Walkthrough approach provides a way to create a place to start as well as a way to determine what kind of questions will garner which kind of data, and in the long run, help to determine whether the study requires a qualitative or quantitative methodology, or a combination of both. This initial questioning of your motives to do the research in the first place will also highlight the possibility of needing partners and/or collaborators.

Cummings, Browner and Hulley (2007) offer another model for thinking about the research question using the mnemonic FINER (p.20). They contend that a good research question be i) *Feasible*, the researcher must understand the challenges that can arise when

attempting to study a particular problem or phenomenon (i.e. access to populations, risk factors, human and financial resources); ii) *Interesting*, the question should be interesting to all involved in order to sustain enthusiasm for the study; iii) *Novel*, the question should garner findings that contribute new knowledge to the field; iv) *Ethical*, requiring the proposed study to conform to ethical protocols of the field and the researcher's institution; and v) *Relevant*, as Cumming, Browner and Halley suggest, one of the most important factors (p.20). Relevancy can be gauged by asking —How will the findings of this study impact the field, the study population and the broader community?

It is important to note the place of theory stemming from the literature here. Good research problems or questions are underlined by a thorough and logical theoretical framework. The investigator of any research problem must be knowledgeable about other research in the field, key concepts and theories which have been the focus of others' work, and the range of studies and study findings which are affecting current practices in the field. While developing any research study, a good research methodologies handbook, such as those authored by John Creswell, will be indispensable. A list of resources is included at the end of this article.

## WHAT DO YOU WANT TO KNOW AND WHY DO YOU WANT TO KNOW IT?

To begin your study overview which will help you develop a good research question, you need to interrogate your inspiration, needs and motives for carrying out a study. This initial interrogation will help you to determine the feasibility of the study and the potential relevancy of your findings. What do you already suspect about your program that could use an in-depth examination? Possible motives might be to gain more understanding about student perceptions in relation to learning outcomes, or the need to align your learning outcomes with student performance and employer satisfaction, or you may need to gather evidence about program effectiveness for strategic and curricular planning.

## WHEN IS A GOOD TIME TO CONDUCT THE STUDY?

Consider the possible impact of timing. Is there a timeframe for getting and using the information? Starting a research study might arise because of other activities such as redesigning curriculum, reviewing program effectiveness, recruiting students or industries, gaining administration confidence, developing new initiatives, strategic planning or analyzing cognitive development in relation to particular learning outcomes. As Morse pointed out, research questions may arise when something goes wrong and you need the time to analyze what happened. The timing of your study is linked to questions around feasibility.

## WHO WILL USE THE INFORMATION?

There may be a number of groups that could potentially use your study findings; you as course instructor/program coordinator. pedagogical implications and learning outcomes; industry partners and employers — for developing effective internship training; administrators — effectiveness of school/ industry partnerships or cognitive effects of experiential learning in particular sectors; or students — do I have/know what I need to graduate and be successful in my chosen career? When making decisions about the what, and the how, you must think about the who you are studying, for what reason, and for what effect or implication. If you don't know how you are going to use the information/data, or who will benefit from the findings, you won't know what to look for.

Additional questions you might ask to help determine feasibility and relevancy are: What information (data) is needed? Who has that information? Where are they located? What methods will be used to gather the information (tools, strategies and spaces)? And what are the ethical (issues of integrity and safety) and pedagogical implications of collecting this information from the specific population identified?

## RESEARCH METHODOLOGIES

When conducting your Armchair Walkthrough or using a model such as "FINER" to think about designing a research study, you must also consider the possible methodologies that you might use. A *Quantitative* methodology will engage deductive thinking. You might start with a hypothesis that you set out to prove or disprove using statistics. In quantitative research, numbers tell the story. When employing *Qualitative* methodologies, you will engage inductive approaches where you will start with a hypothesis and collect data to support the hypothesis by creating a story or narrative around a particular problem or question. In this case, the hypothesis develops from knowledge of the field and issues arising within the current literature (see Wheeldon & Mauri Ahlberg ,2012, pp. 8-9). A pragmatic approach to the research question involves "abductive" thinking based on "expertise, experience and intuition of researchers" (Wheeldon, Johannes & Ahlberg 2012, p.8). You might start collecting data and develop the research question from themes that emerge. Your research question comes from observed practice first not from a literature review.

## WHAT'S NEXT?

Whatever kind of research study you embark on, you will need to develop a strong theoretical framework using current literature within your field as well as consult with current work in the field of research methodologies. Beginning a research study requires a sound proposal that is interesting, feasible, relevant and grounded in current scholarship. Developing a set of questions to guide you through the proposal process and eventual research design will ensure that you meet your goals and objectives, and the identified constituencies will benefit from your findings.

The following are just a few of the many helpful resources that will help you design your research methodology and develop a focused study.

### Research Methodologies:

*Classroom Assessment Techniques, A Handbook for College Teachers.* Thomas Angelo & K. Patricia Cross. San Francisco: Jossey-Bass, 1993.

*Research Design: Qualitative, Quantitative and Mixed Methods Approach.* John W. Creswell, Sage Publications 2003.

*Educational research: Planning, conducting, and evaluating quantitative and qualitative research.* John W. Creswell (3rd ed.). Upper Saddle Creek, NJ: Pearson Education, 2008.

*Designing and conducting mixed methods research.* Creswell, John W. Creswell, and V. L. Plano Clark. Thousand Oaks, CA: Sage Publications, 2007.

*Handbook of Qualitative Research.* Norman K. Denzin & Yvonna S. Lincoln, (2nd ed. Eds.). Thousand Oaks, CA: Sage Publications, 2003.

*Visualizing Social Science Research.* Johannes Wheeldon & Mauri Ahlberg, Sage Publications, 2012.

### Research in Experiential Education:

*Handbook for Research in Cooperative Education and Internships.* Patricia Linn, Adam Howard & Eric Miller (Eds.). New Jersey: Lawrence Erlbaum Associates Publishers 2004.

*International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed.), Richard K. Coll & Karsten E. Zegwaard, (Eds.). Boston MA: World Association for Cooperative Education <http://www.waceinc.org/handbook.html>, 2011.

### Relevant Journals:

**Asia-Pacific Journal of Cooperative Education**  
[www.apjce.org](http://www.apjce.org)

**Higher Education Research and Development**  
[www.herdsa.org.au/?page\\_id=25](http://www.herdsa.org.au/?page_id=25)

**Journal of Cooperative Education and Internships (CEIA)**  
[www.ceiainc.org/journal.asp](http://www.ceiainc.org/journal.asp)

**Journal of Mixed Methods Research, Sage Journals.**  
[mmr.sagepub.com](http://mmr.sagepub.com)

### Works cited (in this article)

Cummings, S., Browner, W. & Stephen B. Hulley, S. B. (2007). Conceiving the Research Question. In S. B. Hulley, S. R. Cummings, W. S. Browner, D. G. Grady & T. B. Newman (Eds.), *Designing Clinical Research*, (3rd ed., pp. 17-24). Philadelphia: Lippincott Williams & Wilkins.

Morse, J. M. (1999). The Armchair Walkthrough. *Qualitative Health Research*, Vol. 9 No. 4 July 435-436.

Wheeldon, J. & Mauri Ahlberg, M. (2012). *Visualizing Social Science Research*. Thousand Oaks, CA: Sage Publications.

# INTERNSHIP SOUL MATES:

## Designing and Executing a Successful Interview and Matching Process in an Open Access Program

By Zach Osborne and Annie Straka  
Managers of Academic Internships  
at the University of Cincinnati



In January 2011, the Academic Internship Program was launched at the University of Cincinnati as a pilot program intended to provide a structured experiential learning experience for students who did not have access to UC's long-standing co-op program. The Academic Internship Program is rooted in the foundation of cooperative education on a pedagogic level, so when our first group of students began the job search for part-time internships we assumed the job search process used on the co-op side of the house would serve as a natural framework for internships as well, right? Not so much. **HERE'S THE STORY OF OUR SLIGHTLY CHAOTIC BEGINNINGS THAT LED US TO DEVELOP A HIGHLY STRUCTURED INTERNSHIP MATCHING PROCESS.**

### THE FIRST GO-ROUND By Zach Osborne

Having worked for five years as a co-op advisor at UC, I'd developed a great deal of faith in a process that relied heavily on employers and students to connect with each other after I had provided resumes of interested students to employers. This experience biased me toward the 'free-market' search process rooted in the cooperative education program. Once I'd guided students through the process of preparing their resumes, polishing their interviewing skills and selecting positions of interest, I sent resumes to employers and in most cases employers and students worked directly together to arrange and conduct interviews. I acted as a resource and an advocate for students and as a facilitator for employers, but generally the process from receipt of resumes to extending of offers was fairly hands-off from my perspective. When I made the switch to the Academic Internship Program as the first Manager of Academic Internships I quite logically assumed that since I was working with two groups of people with goals identical to those on the co-op side that this same

system would work. I prepared my first group of internship students for the search process, allowed the students to express interest in various internship opportunities and invited potential employers to view the resumes and contact students to schedule interviews. **I then sat back, put my feet up on my desk, and waited for placement magic to happen. What I very quickly realized was that I was, in fact, not in Kansas anymore.**

### UNEXPECTED CHALLENGES OF AN OPEN-ACCESS, MULTIDISCIPLINARY, OPTIONAL PROGRAM

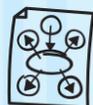
What I very quickly learned was that there were some very significant differences in the way students and employers understood, viewed, interacted with, and prioritized the co-op program versus the Academic Internship Program, specifically when it came to the search process.



## Challenge #1: Optional Participation

One of the biggest issues I had during that first search cycle was fielding and following up on calls and emails from employers who had attempted to contact several students over a few days and had been unable to do so. In an optional program if an internship isn't with exactly the right company or is further from a student's apartment than they think is ideal, they can fail to communicate with an employer inviting them for an interview or decline the interview opportunity with no consequence.

**Bottom line: I learned very quickly that although all students began the internship process with the goal of securing an internship, the optional nature of the program led to some very real challenges for me to achieve the goal of helping as many students as possible secure an internship.**



## Challenge #2: Variety of Disciplines

While variety may be the spice of life sometimes, a lot of spice can make for some interesting challenges. The Academic Internship Program is open to any undergraduate major and as a result, we get a huge variety of students with extremely varied professional interests. This has led to working with some students and employers who were very comfortable with a traditional interview/hiring process, and some who would benefit from a system with a bit more structure. For example, while corporate partners and business students are used to the traditional resume referral, interview and offer process, organizations and students representing many other disciplines are far less familiar and comfortable.

**I learned very quickly that I was going to need to develop a new system that incorporated a significant amount of additional structure if I was going to be successful in maximizing the number of students who secured internships.**



## THE PLAN — DEVELOPING A MATCHING PROCESS

After learning from the first placement cycle that the 'free market' approach was not going to be sustainable, I began a quest to find and shamelessly plagiarize a better mousetrap. In looking into other institutions I came across the University of Waterloo and their matching process. At a high level, they have a structured interview process followed by a mathematical/algorithmic matching process, by which students and employers are paired based on their level of mutual interest. I contacted some folks at Waterloo who were very generous in sharing information about their process and from this information I adapted the approach to fit the Academic Internship Program. In researching this idea, I also learned that fraternities and sororities as well as medical students and medical schools many times use a very similar interview/matching process.

### The primary problems I set out to solve were:

- 1 Students did not always prioritize returning calls/emails from potential employers as highly as they should have, which resulted in missed interview/offer opportunities.
- 2 Employers did not always contact students in an ideal timeframe, which resulted in missed interview/offer opportunities.
- 3 Students would miss/forget/get confused about/get lost on their way to interviews.
- 4 Employers' schedules would change and interviews would get cancelled.
- 5 Interviews were spread out over many weeks, leading to students wanting to hold on to offers for several weeks, much to the chagrin of employers who interviewed early in the term.
- 6 A huge portion of my time was spent keeping the ill effects of #1-5 to a minimum and not on other critical tasks.

So after much research, the process I originally designed that continues to be adapted looks something like this:

- 1 Students review all active positions in the internship system and indicate their interest (Very Interested, Interested or Not Interested).
- 2 Students Build a Top 10 List.
- 3 Students post final resumes (cover letters optional for each position).
- 4 Employers view resumes (of students who selected Very Interested or Interested for that position) in the system and build Preferred Student List.
- 5 Employers RSVP to attend a half day or full day of interviews (full day accommodates 14 half-hour interviews with a lunch break).
- 6 Using these lists, an interview schedule is built for each position.
- 7 After the event, employers and students turn in a final Preference Sheet that indicates which offers they're willing to extend or accept.
- 8 Using rankings indicated on these sheets, each position-student match is scored.
- 9 Students are matched with positions starting with the best possible match score until as many students are matched and positions are filled.

The process seemed to solve the major issues I faced during the first term and it made sense to me on paper, so I decided to give it a shot and see what happened.

## OUR FIRST INTERVIEW DAY

By Annie Straka

When I was hired on as the second Manager of Academic Internships in May 2011, the first Interview Day was only weeks away. I was energized because I had just started my new job, and I was following Zach's lead as we worked to pull off our first official Interview Day event. Zach had laid all the groundwork for the event, so I really came in during the execution phase. Students were using our system to indicate their interest in the active positions we had posted, employers were sending in their RSVPs for the event, and we really were just waiting until we had all the information needed to set schedules and send them out — then we'd be ready to go. How hard could it be? So, around 3:30PM on the day we had promised to send schedules to employers, Zach and I sat down to get to work. We thought it would take a few hours, tops. Turns out, it can be a pretty slow process when you're completing the scheduling *manually* — meaning two human beings using laptops, typing in separate Excel sheets, plugging in one student at a time, trying to make sure we don't double book anyone. It was a tedious process that would have been nearly impossible to complete without two sets of eyes. Six hours later (give or take), we had a rough schedule but decided it might be best to look over the schedule with fresh eyes the next morning and let our employers know we might be a bit delayed in sending final schedules. When we looked at the schedule the next day and caught several errors, we were happy with that decision. Once schedules were as ready as they were going to be, we pulled the trigger and sent them out.

The big day came a week or so after schedules were sent, and the actual event went off without a hitch. We had a few minor scheduling errors (a result of our manual process), but at the end of the day 155 individual interviews took place and our employers and students seemed pleased with the experience.

Two unknowns about planning the first event really stick out in my mind: first, we *severely* underestimated how complicated the scheduling process would be. Moving students around in the schedule has a domino effect that can quickly turn into a mess, as we learned firsthand. Second, I'm not sure either of us fully grasped the risk we were taking by relying on an entirely new process to place all the students enrolled in our course in internships for the following term. But once the event itself was over, the real core of our work began: it was time to complete the matching process.

**Our matching formula looks something like this:**

- **Student Ranking + Employer Ranking = Match Score**
- **If a student or employer said "no", that match is scored as "50" to remove it from the possible matching range (match scores typically range from 2-15 or so).**

From there, it's fairly simple: beginning with the lowest score (think golf, lowest score wins), we match students to positions. If a student-position match score is 2 (1 + 1), we call that a soul mate — the ultimate internship match! Working through the list from lowest score, we match until all possible student-position matches have been made. **Using this process, our first Interview Day resulted in 80% of our participating students placed in internships.**

**It's no question that we had a bit of luck on our side that first time, but the magic of the matching process that we discovered during our first Interview Day has been consistent every time. The scoring process seems to yield the same results as a more traditional hiring process, only we control the timeline and are able to maximize placements by determining match scores versus waiting for offers and decisions to play out.**



## LESSONS LEARNED & PLANS FOR THE FUTURE

Now that we're approaching our sixth Interview Day this fall, we've learned several things about the process along the way. We're not experts by any means, but there are several key lessons we would pass along to anyone working to implement their own matching process:

### **Encourage students to remain open minded during the initial interest selection phase.**

When we first began working with our students on the search process, we would often make assumptions about what positions they may or may not be interested in. Because our program is open to any major, we have a wide range of students looking for a wide range of opportunities (we've worked with 60+ majors to date). Our job development strategy is based on the students who walk through our classroom door during week one, as our student mix is different each term; therefore, we have students who, based on their major and interests, might not find much in our system. However, what we found was that it is best to let the students determine whether they are a good candidate to participate in the Interview Day process. The process encourages students to consider many positions, and to consider different applications of their major and interests. Strategic job development is of course central to our roles as Managers of the program, but our program has also served as an exploratory process for many of our students so we've learned that nurturing that open-minded approach in our students is central to student placement and success.

### **Allow time to carefully check and re-check manually produced Interview Day schedules.**

Until we are fortunate enough to someday automate our processes, we have to be diligent in checking our process for errors. The schedule is a bit like a puzzle — if you misplace one piece, you're going to begin to misplace others as a result. So, we've learned that the time we spend reading through the schedule to double and triple check is time well spent.

### **Be clear with students and employers about the matching process (especially when it comes to reminding employers they will not be extending offers directly).**

This is probably the most challenging piece of the process to communicate to students and employers. Employers who are well-accustomed to traditional hiring processes are particularly difficult to re-train when it comes to trusting the matching process and not extending direct offers to students. When employers don't abide by those guidelines, students get confused and the matching process can be compromised. However, we've learned that if you can communicate clearly and get employer buy in even just one time, employers will see the success of the process and begin to trust that the matching process maintains the integrity of student and employer choices.

### **Preparation is key; the actual event will run itself with sufficient prep-work.**

The weeks leading up to Interview Day are always the most stressful. On the actual day, if we put the time in on the front end to ensure everything runs smoothly, the event practically runs itself. And after planning five Interview Days over the past year and a half, at this stage most of the preparation involves relatively simple customization of pre-existing materials.

### **Be confident in the process.**

When it comes down to it, the matching process is very student focused. It's not that the employers aren't equally valued, but the process allows students to control which positions they're willing to accept and which they're not and typically employers only have the half-hour interview to court the students of their choice. When we have a tied score, we tend to honor the student's choice because ultimately our goal is to connect as many students as possible to meaningful internships that they are enthusiastic about. Not to mention, in an optional program, student satisfaction is key to our success and sustainability. We have dealt with disappointed employers and students alike, but all in all, both parties seem to appreciate the process and the facilitated decision making.

As our program grows, our process will continue to evolve. This past term, we offered an Interview Day alternative to our employers who still wanted to participate in the matching process. These employers conducted interviews outside of the central event (either in their office or on campus), but all interviews were completed by Interview Day so that those positions would be included in student preference lists. Likewise, employers who interviewed outside of the event provided us with their list as well so we could complete the matching process. This alternative path worked well, and we believe it increased our employer participation by not limiting our employers to a one day, one method approach. However, the majority of our participating employers still opt to come to Interview Day to conduct their interviews so we're confident that there is real value in offering that structure to our partners.

We have plans to automate portions of the process (and eventually nearly all of the process) including scheduling, matching, etc. This will be a gradual transition, and we believe that the automation process will be more effective now that we've ironed out a manual process that works for us. Once the process becomes part or completely automated, our capacity will be expanded to be able to accommodate more students, more employers, and possibly a multi-day interview event.

Admittedly, we still have a lot to learn since the program is less than two years old. Our process will inevitably continue to evolve and may look entirely different a few years from now. But for now, we are evaluating our struggles and celebrating our successes and hoping to increase the number of internship "soul mates" each term.



# Establishing a Comprehensive Assessment System for Internships: Johnson & Wales University's Story

By Grégory F. Lorenz, Ph.D., *Dean of Experiential Education*, Johnson & Wales University and Maureen Dumas, *Vice President of Experiential Education & Career Services*, Johnson & Wales University

Work-Integrated Learning, Internship, and Cooperative Education: Regardless of the institution from which the programs are delivered, these experiences have common elements. For example, students generally are asked to step outside of their comfort zone, participate in hands-on-learning in an employer organization, and apply the knowledge and skills gained in the classroom in the workplace environment. Some common challenges faced by universities are to know if students are learning, to what extent, and how to use the programmatic and student learning data to impact the experience and program for future students. **In higher education, assessment is critical. With proper assessment, institutions can evaluate student learning and the effectiveness of their programs and institutional goals. It can provide a window into the learning that occurs outside of the classroom from the students' perspective, as well as validation of programmatic quality from the industry and employer perspective.**

Johnson & Wales University (JWU) has a rich history of experiential learning including many programmatic forms from internships and directed work experiences to service-learning and study abroad. Most recently, in 2011-2012, 4000 JWU students participated in academic credit-bearing internships with over 1700 organizations. Adding to this success, JWU has further cemented its commitment to work-integrated learning

as a result of our new strategic plan, "2017: The Centennial Plan," with a goal to "enrich our academic programs with experiential and work-integrated learning."

As a private, non-profit institution with four geographically-dispersed campuses across the United States, the need for a strategic and comprehensive internship assessment system became increasingly evident over the past 5 years. The purpose of this paper is to share our journey of establishing a comprehensive assessment system for internships. We will begin by providing context for the reader to better understand our unique institutional landscape and situation. Next, we will describe our previous system of data collection and finally outline the process we followed to develop our current assessment model. Our hope is that other institutions aspiring to create or re-design internship assessment systems can learn from our experience.

## THE LANDSCAPE

In 2006 a university taskforce was charged with offering recommendations to the university President to enhance and strengthen experiential education as part of the approaching university strategic plan: "FOCUS 2011." As a result, the university set out to "re-engineer" experiential education across our four-campus university system. This led to the dedication of system-wide resources towards

experiential education and the mobilization of a university-wide experiential education committee with representation from multiple stakeholders including experiential education, career services, academics and administration. The experiential education committee quickly recognized the university strengths with regard to experiential education programming but also noted some opportunities. Some of the strengths included the breadth of experiential and work-integrated learning experiences for students across our system, the volume of students participating in these experiences (close to 2300 at the time), and the value of these experiences in preparing students for their professions upon graduation.

However, one opportunity emerged that ultimately allowed the university to create appropriate consistency in internship experiences across our system while allowing necessary flexibility for the particular academic colleges, schools and programs. This opportunity was the result of two overlapping, university initiatives. As the Experiential Education initiative was moving forward, the university outcomes and assessment initiative was also underway. The synergy between these two initiatives resulted in the development of an overarching, experiential education outcome statement and specific experiential education outcomes for all credit-bearing, university approved work-experiences. More importantly, these two elements laid the foundation for the next phase of the assessment process. The overarching experiential education outcome statement is below. (Although the outcome statement includes multiple constructs such as reflection, competency, and adaptability, it is not within the scope of this paper to describe those in detail).

## Johnson & Wales University Experiential Education Outcome Statement

*Students are expected to engage in self-reflection, demonstrate competency, and exhibit adaptability through the application of established experiential education competencies in an industry setting.*

The experiential education outcomes are below.

## Johnson & Wales University Experiential Education Outcomes

- Disciplinary Knowledge and Skill (specific to each academic program and internship course)
- Work Ethic and Professionalism
- Problem Solving (in an industry setting)
- Communication Skills (in an industry setting)
- Collaboration (in an industry setting)

The experiential education outcomes with corresponding descriptions were developed after collecting valuable input from our academic community and employer partners. Additionally, the publication titled, *"Are They Really Ready to Work: Employers Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Workforce,"* coordinated by The Conference Board, Corporate Voices for Working Families, the Partnership for 21st Century Skills and the Society for Human Resource Management, informed the development of these outcomes. This study provided the voices of 400 employers about the skills they believed graduates should have for entry to and progression within the workforce.

## OUR PREVIOUS ASSESSMENT PROCESS

### Instruments for Collecting Student and Employer Data:

In the past, we used an assortment of student performance evaluation and feedback instruments and processes. This was amplified by our four-campus system and multiple work-integrated learning programs offered across the system. In order to streamline and develop our new model, we gathered every employer evaluation and student survey instrument used across our system and compiled the questions into one massive spreadsheet. The result yielded over 400 coinciding questions that we asked employers and students about the internship

experience. These questions naturally were divided into the following categories: questions about our departmental services, student performance during the internship, student internship site quality, and value added questions. However, due to the inconsistency in evaluation instruments, **we did not have a formal and consistent system in place for data collection and tracking. The net effect was inefficiency and the inability to draw meaningful comparisons from the data.**

### Process for Collecting Data

At this time we also evaluated our existing process for collecting student performance evaluation information from the employer and the feedback about internship experience from the student. We primarily collected this feedback by fax or by email (i.e. employers faxing or emailing student performance evaluations). The information was collected and stored in a student's file until the end of the term when the student's grade was due. Student feedback about the internship was collected and the most immediate or urgent feedback was addressed immediately. However, we noticed a gap in this process. **We had no central method to merge the employer information we obtained about student performance or student feedback about the internship experience and site, analyze the data for trends and patterns, and make appropriate changes to the internship program and student experience based on this information. Essentially, we did not leverage current technologies that existed that would allow a more seamless approach to the data collection and analysis process.**

Our analysis of this situation informed the framework for our new two-pronged assessment model. First, we knew we needed to capture student performance evaluation data from the internship site in order to help the student understand his or her workplace performance, strengths, areas for improvement, and ultimately to process a student's academic grade for the internship experience. Second, looking longitudinally, we needed to capture both student and employer data about the internship experience in a centralized way with a goal of using the information to: a) provide

feedback to the university including the academic community about the internship experience b) understand if students were achieving the previously described experiential education and disciplinary skills outcomes c) provide a mechanism for employers to measure the career readiness of our students and d) provide the Experiential Education & Career Services department with valuable information about the student perception of our services.

## THE NEW ASSESSMENT PROCESS

### Governance:

As the new assessment process unfolded, the Experiential Education & Career Services office experienced a leadership change and the office governance structure fully transitioned from a service-oriented center to an arm of academics, reporting directly to the University Provost. This change in leadership provided the platform for collaboration with the Office of Institutional Research to assist and provide expertise on operationalizing this new assessment model and process.

### Student Performance Data:

From a student learning assessment perspective, we needed to determine if students were achieving the experiential education outcomes we developed. To do this, we narrowed down the list of 400 questions and created one instrument for employers to use for student performance evaluations. The new Student Performance Evaluation (SPE) instrument is used by internship employers to evaluate student workplace performance and attainment of experiential education outcomes at the midterm and the final points of the internship. Employers rate student performance on a 0-5 scale with respect to each of the experiential education outcomes. Employers also provide qualitative feedback to both the university and the student about the students' strengths and areas for improvement with respect to the established outcomes. The student performance evaluation scores are then merged with academic internship assignment evaluations to

calculate a final student letter grade for the internship. Prior to full implementation, appropriate validity and reliability measures were conducted with the instrument. The average response rate with this instrument is 99%.

### Student Feedback:

We also developed a new Student Internship Survey (SIS). This instrument is distributed to students at the end of the internship experience with an average response rate just over 80%. Using the same rating scale as the internship employers, students are asked to rate their perception of attainment of experiential education outcomes during the internship. For example, students provide a rating to the statement, "At my internship I demonstrated competency in problem solving: Assessing, analyzing, recommending and/or implementing solutions to workplace problems." Students also provide qualitative feedback about a number of other items including their academic preparedness and courses or topics that would have been helpful prior to the internship. Again, appropriate validity and reliability measures were conducted with the instrument.

### Looking Back but Moving Forward

As a result of this initiative, we moved from a process of collecting student performance evaluations by fax and email to distributing them via an online method. Ultimately, it provides a central method to capture both qualitative and quantitative data from both students and employers over multiple academic terms looking at correlations, patterns and trends.

Although our system is relatively new and we continually make adjustments, we have been able to meet our assessment goals of capturing employer evidence about individual student performance during the internship and gathering data about collective student performance for multiple student populations (i.e. academic programs) relative to the established experiential education outcomes including disciplinary

knowledge and skill outcomes. **As we look back on this project it was truly transformational. It positioned Experiential Education & Career Services as an academic unit within the university. The results obtained from this assessment system provide solid and valid data to our university community that demonstrate that real learning had occurred during the internship and that there was an application of academic knowledge during internship by our students.** It also provided data from an external stakeholder, employers, that was essential as new curriculum is created and current curriculum is changed. It was a monumental undertaking but the value that it brings to our program overshadows the work and investment of time.

Moving forward the challenge is managing the collective student performance data, organizing it, and sharing it with all appropriate stakeholders in a timely manner. Although some of the data collected has been shared for academic program reviews and other university initiatives, we have identified Experiential Education & Career Services department, deans, department chairs, president's cabinet and trustees as audiences that we believe would value this information. Prioritization of work is necessary in order to create these reports and it will require a structured and deliberate plan in order to accomplish it.

### References

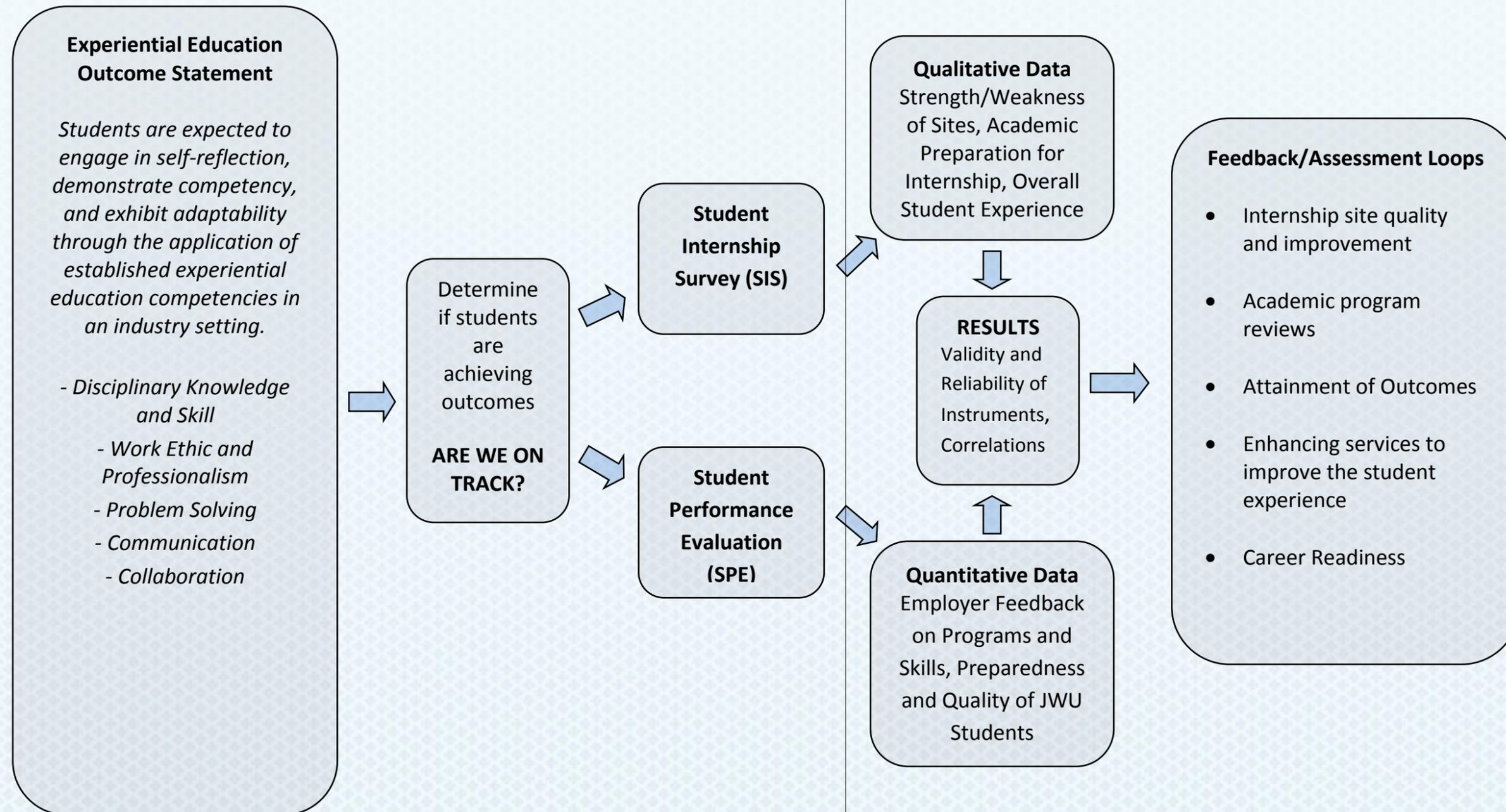
- The Conference Board, Corporate Voices for Working Families, the Partnership for 21st Century Skills & The Society for Human Resources. (2006). *Are They Really Ready to Work: Employers Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Workforce*. Casner-Lotto, J., Barrington, L., & Wright, M.
- Johnson & Wales University. (2012). FOCUS 2011. Retrieved from: <http://www.jwu.edu/focus2011/>
- Johnson & Wales University. (2012). 2017: The Centennial Plan. Retrieved from: <http://www.jwu.edu/2017Plan/>



## Experiential Education & Career Services Ex Ed Assessment Process



JOHNSON & WALES  
UNIVERSITY



# “Find Your Next Professional Job: A Guide for Community College Students and Experienced Workers”

## By Tamara Pinkas and Scott Weighart

By Jill Lutz, *Director of Workplace Learning, Central Piedmont Community College*



During the course of a given day in any busy co-op & internship or career services office, students often have questions about how to craft a resume, draft a cover letter, and what to expect on an employer interview. These questions seem quite normal

when dealing with traditional college-age students who lack experience with such matters. **However, the conversation around resumes, cover letters, and what to expect on an interview takes a different turn with non-traditional students (i.e. adult learners).** For many students one meeting with an advisor or career services professional is not enough however adult learners face a different challenge: Juggling the search process with school, work and often family demands.

Enter the book, “Find Your Next Professional Job: A Guide for Community College Students and Experienced Workers” by Tamara Pinkas and Scott Weighart which specifically addresses the needs of adult learners who are participating in cooperative education programs.

Pinkas decided to embark on the writing journey when she realized that adult learners did not have a true reference guide geared towards their needs. Having worked for Lane Community College in the co-op department as a faculty member since 1986, Pinkas understood the needs of adult learners who often have prior professional experience. Often times these students are “re-careering” and want to get into a new role or

industry (often due to downsizing) or they are in pursuit of an “encore” career. Other adult learners attend college for the first time after having gained years of professional experience.

Several years ago, Pinkas approached Scott Weighart at the CEIA annual conference about his book, “Find Your First Professional Job”. She liked his guide, but felt it was not appropriate for community college students. At the time, Weighart worked with co-op students at Northeastern University, which has a nationally recognized co-op program. His book was geared to the traditional, four-year college student. After speaking together at the conference, the pair agreed to work together to develop a text that would be relevant to adult learners from all walks of life and from all parts of the country. In the end, some of the sections that appeared in Weighart’s book also appear in the new book, however these sections have been edited for the adult learner and pay respect to the fact that these readers may already have professional work experience.

The book contains five chapters that lay out the search process in sequential order. The first chapter, “Planning for Your Next Professional Job” reviews job market research, describes employers’ expectations for co-ops or interns and talks about understanding the economy and the effects it has on the job search in a given industry. An added bonus to educational professionals is that this text discusses how students should work with their career services or co-op/internship office in finding such opportunities.

Chapters two and three include writing an effective resume and strategic interviewing with the emphasis on helping the adult learner realize how both resume writing and interviewing may have changed since their last job search. Pinkas indicated that companies have developed a resume screening system based on federal and state equal opportunity laws; resumes are needed for practically every position and adult learners need to understand how to apply for opportunities online. Additionally, competition is much higher because postings of all types are often available on company websites and job boards. Pinkas and Weighart clearly point out that a well-crafted resume gives students the best chance at an interview. Helping students along that path, the text includes lists of action verbs, sample resumes and directions on how to format and write the various sections of a resume (acknowledging that students will hear varying advice on how to write a resume from practically everyone they meet). The text also includes helpful quotes on resume writing from employers, students, career counselors and co-op/internship professionals.

While a resume may get the student’s foot in the door, the interview will be the student’s opportunity to tell their story and why they would be the best candidate for a job, co-op or internship. The guide offers practical advice that is relevant to all job seekers, from proper attire, non-verbal skills (i.e. handshake, body language) and punctuality to researching the company and matching skill sets to company needs. Pinkas felt that addressing the concept of “professional attire” was extremely important because today’s definition may differ from how they dressed in the past for an interview.

The last two chapters cover how to be successful on the job and reflecting on the work experience. These two concepts go hand-in-hand; students should do status checks to ensure they are making the most of their experience while it occurs, but also understand what was ultimately learned after the experience ends. Chapter four provides common sense advice on how students should act while at work, providing 23 tips

with discussion for students to consider. These tips offer guidance on staying busy on the job, taking notes when given a task, acting ethically and “cubicle etiquette” among others. The last part of chapter four gives a thorough overview of proper email usage and etiquette, giving students examples of what to do and not to do in email exchanges.

Reflection is important for a variety of reasons, but it is especially important for students transitioning to the world of work for the first time or experiencing a career change. Pinkas and Weighart encourage students to participate in reflection and that it starts by reviewing the employer’s evaluation of how the student performed on the job. The authors point out that colleges and universities offer a variety of ways for students to reflect on their co-op/internship experience through seminars or exit interviews. Reflection forces the student to understand how theory and concepts learned in class were applied in real-life situations.

The guide that Pinkas and Weighart developed for the adult learner is an excellent workbook overall. It is well-organized, easy to read, and covers many situations that learners of all ages and backgrounds should consider and understand when participating in a co-op/internship or entry-level job search. The appendices at the end offer skill worksheets, examples of stories crafted by students to showcase their skill sets, and even a resume rubric. **Readers may find themselves reviewing the sections again in order to update their resume or prepare for an interview because the guide provides strong, common sense advice applicable over the course of time.**

**Find Your Next Professional Job can be ordered online at [www.mosaiceypublishing.com](http://www.mosaiceypublishing.com)**

## What Next?

With the approach of the 50th Anniversary of the Cooperative Education and Internship Association (CEIA), and having celebrated the centennial of our profession just a few years back, we find ourselves asking “what next?” In what direction are we headed? Over the past several years, there have been changes in the field of work-based learning which have affected what we do and how we do it. We have seen the emergence of internships as well as service learning in many traditional cooperative education programs. **Change is a given and will continue to be so.**

As educators and practitioners in the field of cooperative education and internships, we often need to concern ourselves with planning for the future of our programs. This may entail developing long-range goals, or strategic planning, as well as some tactical planning to identify more specific, short-range objectives. Most of our time, however, seems to be spent in our day-to-day operational activities. **Finding the time needed to do the planning and organizing essential to the future of our discipline is often difficult. And yet this is a much needed part of the development and strengthening of our programs and profession.**

**A major tool we can use to assist us with the planning aspects of our jobs is research. Without good research in our field, it would be very difficult to assess where we’ve been, what has worked and what was successful as well as what has not.** In like manner, good research will point in the direction of where we are headed and what we can do to better serve our students and employers while sustaining effective and efficient cooperative education and internship programs.

Excellent sources of research continue to be the *Journal of Cooperative Education and Internships* and the annual *Recruiting Trends* published by Michigan State University. With the small number of professionals in our discipline sources of secondary research are quite limited. In trying to locate information to assist with program assessment and planning we may find ourselves conducting our own primary research. Through research we can better determine our future paths and how best to use our resources for continued success. Everyone in our field should consider doing research, not only to add to the body of existing information, but to ascertain where we are and to help chart our course for the future.

— H. Randall Poole, Ph.D.



**Randy Poole** is Manager of Career Services, Prince George's Community College & CEIA President

## Federal Pathways Program

By Jill Lutz, *Director of Workplace Learning, Central Piedmont Community College*

*Last fall, Experience published an article highlighting the U.S. government's Federal Pathways Program, established by President Obama when he signed Executive Order 13562 in late December 2010. The EO was signed, in part, to address the government's need to recruit students from all walks of life, including various educational backgrounds. Here is a program update:*

**The Pathways Program is divided into three areas:**

**Internship Program:** Students enrolled in high school, community or technical colleges, four-year colleges & universities (including graduate-level work) can apply to the government's paid internship program, in order to obtain relevant work experience related to their studies. Generally, internships will last one year and are organized by each agency. At the end of the work period and completion of at least 640 hours, students may qualify for civil service job opportunities.

**Recent Graduates Program:** Students who have graduated within the past two years may apply for consideration in the Recent Graduates Program. Graduates with degrees from various post-secondary institutions are considered. Veterans have up to six years from graduation to apply for this program. Similar to the Internship Program, each agency organizes recruiting efforts and the work experience lasts one year. However, participants will receive more formal training, development, and mentorship during the program. Successful participants can also apply for civil service positions.

**Presidential Management Fellows (PMF) Program:** Created in 1977 and operated by the Office of Personnel Management (OPM), the Presidential Management Fellows Program focuses recruiting efforts towards candidates with advanced degrees. The application process can take several months and is competitive. According to the OPM website, the program received over 9,000 applications, but only 630 participants were

selected as finalists. Finalists then apply to various positions in government agencies specifically geared towards the PMF program. Participants receive considerable mentorship and career development and have a final performance review. As with the other programs, participants can apply for jobs within the federal government upon successful completion of the program.

Interested applicants for all three opportunities should review [www.usajobs.gov](http://www.usajobs.gov) for specific information on the kind of positions available and when applications are being accepted for the PMF Program. Applying to the federal government is a daunting process, and applicants should pay special attention to exactly what is needed in order to apply. For example, a recent accounting internship posting indicates that an applicant's resume should include start/end dates for all paid and non-paid work experiences and the number of hours worked on average. Additionally, applicants should include the location and dates for all post-secondary institutions they have attended, the type of degree awarded, and if not yet completed, how many semester hours have been finished. A “complete application package” may also include a questionnaire, written references, a personal essay, and unofficial transcripts. High schools and all post-secondary institutions who have students or graduates interested in Pathways opportunities should explain the level of detail required when applying for federal work. While both the time commitment and application process can be lengthy, the rewards will be worth the wait for students truly interested in federal government opportunities.

**Related Links:**

[www.opm.gov/HiringReform/Pathways/index.aspx](http://www.opm.gov/HiringReform/Pathways/index.aspx)

[www.pmf.gov/becomeapmf/index.aspx](http://www.pmf.gov/becomeapmf/index.aspx)

[www.opm.gov/HiringReform/Pathways/program/fellows/](http://www.opm.gov/HiringReform/Pathways/program/fellows/)



**CEIA Celebrates 50 Years :: 1963 - 2013**

CEIA was founded in September 1963. The original mission: To provide professional development and resources to the field of cooperative education. 50 years later CEIA remains the leader in providing professional development and resources to practitioners in the fields of cooperative education and internship program management. The original mission of the organization as envisioned by its founders in 1963 is carried out through an expanding number of training activities, an annual national conference and support and encouragement for on-going research and publications.



Peggy Harrier (Cincinnati State) and Phil Lavendar (Kettering University). Presentation of print ads from the national ad campaign - 1987



Terry Brown (Cincinnati State) and Past President Sam Sovilla (University of Cincinnati)

Past Presidents Dan Cayse (Cincinnati State) and Joel Jeters (University of Illinois at Chicago)



Nancy Caruso (Northeastern University) and Jim Wilson (Northeastern University) - namesake of the CEIA Jim Wilson Award which recognizes outstanding contributions to the promotion and advocacy of research activity in cooperative education



a trip down **MEMORY LANE**

Donald Hunt (University of Detroit) first CEIA President



Past Presidents Helen Oloroso (University of Illinois at Chicago) and Patricia VanderVorm (The American University)



# upcoming events

## CEIA 2013 Annual Conference

*Celebrate the Past and Embrace the Future*

April 14 - 16, 2013 Orlando, Florida

The world comes to Orlando to be entertained, inspired and transformed by the magic of its theme parks, natural beauty and easy access to both Florida coasts. As CEIA celebrates its 50th Anniversary in 2013, let the magic of Orlando inspire and transform the way we approach the field of cooperative education and internships. We will build on the lessons and successes of the past 50 years to make the next 50 years extraordinary!

Additional information and registration available at [www.ceiainc.org/conference](http://www.ceiainc.org/conference)

## 2013 WACE Assessment Institute

*Assessing the Learning Outcomes of Experiential Education Programs:  
A Program for Faculty, Program Administrators and Academic Leaders*

March 18 - 20, 2013 Kovens Conference Center Miami, Florida

The WACE Assessment Institute is designed to allow the participants the opportunity to work with experienced higher education professionals who have or are tackling the many issues connected to the assessment of the learning outcomes of experiential education programs. The ultimate goal is for the participants to leave the institution with a strategy of how to move the assessment process forward within their respective programs and campuses. The Institute will also help the colleges and universities in attendance to address the increasing interest from students, parents, government agencies and accrediting bodies concerning the learning that occurs within their experiential education programs. Additional information and registration available at [www.waceinc.org/assessmentinstitute/index.html](http://www.waceinc.org/assessmentinstitute/index.html)

## Co-op Hall of Honor

*Nominate a deserving individual or organization today!*

The Cooperative Education Hall of Honor gives a permanent place of honor to individuals and organizations that have made a significant qualitative difference in the advancement of dvancement of Cooperative Education. For information about the award, the nomination process and information on past recipients please visit [www.uc.edu/webapps/propractice/hallofhonor](http://www.uc.edu/webapps/propractice/hallofhonor)

To be considered for 2013 all nominations must be completed by Friday December 14, 2012.

## Finding the Theory... **START HERE**

### CEIA + Research

CEIA is dedicated to fostering research that will advance work-integrated learning. Research is necessary to enhance the professional development of the membership, advance the knowledge base, document best practices and innovations, as well as strengthen collaboration with our faculty partners.

### INTERESTED IN RESEARCH AND DON'T KNOW WHERE TO START?

The following individuals have offered to serve as volunteer mentors for those who would like advice or support for a research project involving cooperative education or internships:

#### DR. TRACEY BOWEN

Lecturer & Internship Coordinator  
Communications, Culture and  
Information Technology  
University of Toronto, Mississauga  
(905) 569.4960  
[tracey.bowen@utoronto.ca](mailto:tracey.bowen@utoronto.ca)

#### DR. SHERI DRESSLER

Center for Co-op & Applied Learning  
University of Central Florida  
(407) 823.5000  
[dressler@pegasus.cc.ucf.edu](mailto:dressler@pegasus.cc.ucf.edu)

#### DR. PATRICIA LINN

Chair Psy D. Program  
Center for Programs in Psychology  
Antioch University Seattle  
(206) 268.4825  
[plinn@antioch-college.edu](mailto:plinn@antioch-college.edu)

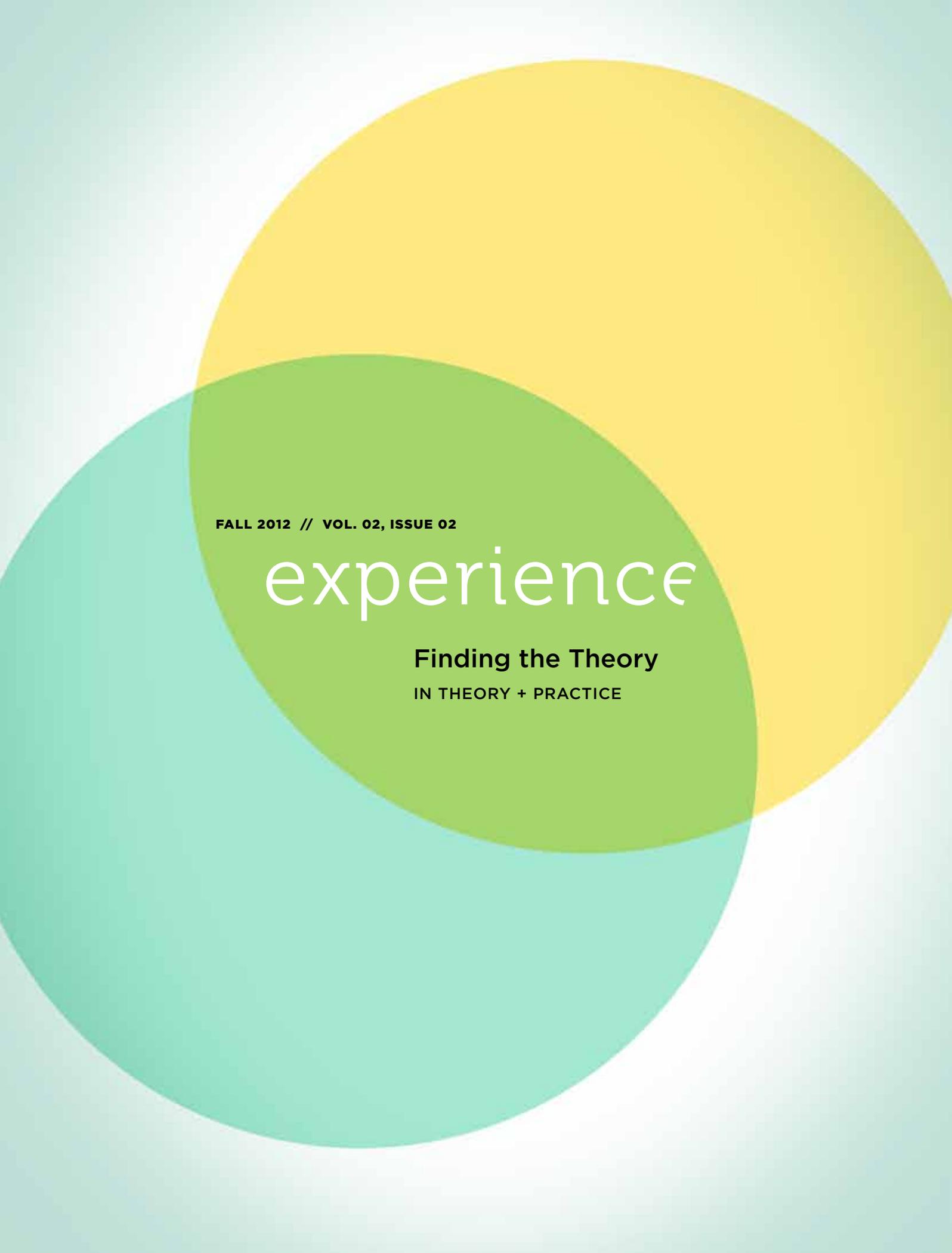
#### DR. MAUREEN DRYSDALE

Associate Professor  
St. Jerome's University/  
University of Waterloo  
1.519.884.8111 x 28288  
[mdrysdal@uwaterloo.ca](mailto:mdrysdal@uwaterloo.ca)

### CURRENTLY INVOLVED IN A RESEARCH PROJECT RELATED TO WORK-INTEGRATED LEARNING? We want to hear from you!

#### PLEASE CONTACT:

DR. TRACEY BOWEN University of Toronto  
[tracey.bowen@utoronto.ca](mailto:tracey.bowen@utoronto.ca) (905) 569.4960



FALL 2012 // VOL. 02, ISSUE 02

# experience

**Finding the Theory**

IN THEORY + PRACTICE