Editor’s Message

My sincere gratitude goes to all of the Executive Editorial Board Members, Reviewers’ Task Panel, Contributing Editors and the Advisory Board for their efforts to make RMIC a great academic journal. They work hard to review the many papers submitted and provide a level of consistency for RMIC reviews. We continue to look for individuals interested in becoming a reviewer for Intellectbase conference proceedings and journals. Potential reviewers should send a self-nomination to the editor at RMIC@intellectbase.org. Reviewers may also be asked to be part of the Executive Editorial Board (EEB) after they have established a positive record of reviewing articles in their discipline.

Also, I want to thank the Intellectbase International Consortium (IIC) Team for their hard work in producing this Issue. The ten papers offer great intellectual contributions and continue our focus on broadening intellectual resources, understanding, development and exchange of ideas among global education professionals.

The RMIC presents detailed theoretical explanations, innovative contributions, creative developments, and descriptions of managerial perspectives, based on creative thinking, illustrated with real case studies and applied research in a well-defined format with rich conceptual structures. Management innovation involves the development of individual researchers engaged in creative endeavors, across a wide range of fields including: the social sciences and humanities, public policy, administration, engineering, business, education, science, technology and the arts. Also, it is intended for scholars who are interested in, and wanting to explore and develop, complex compositions and linking incongruent elements to knowledge, and integrating them conceptually on a creative scale.

RMIC seeks research innovation & creativity and presents original topics. The goal of the Review of Management Innovation & Creativity (RMIC) is to provide innovative research to the business, government, and academic communities by helping to promote the interdisciplinary exchange of ideas on a global scale. RMIC seeks international input in all aspects of the journal, including content, authorship of papers, readership, paper reviews, and Executive Editorial Board Membership.

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Articles published in the Review of Management Innovation & Creativity (RMIC) have undergone rigorous blind review.

Intellectbase is one of the world's leading publishers of high-quality research in both Academia and the industry. IIC has an unwavering commitment to providing methodical journal content and presenting it in a comprehensible format.

In the areas of integrity and journalism excellence, Intellectbase maintains a high editorial standard. Intellectbase publications are based on the most current research information available and are reviewed by members of the Executive Editorial Board (EEB) and Reviewers’ Task Panel (RTP). When there is lack of research competence on a topic (conceptual or empirical), together the EEB and RTP provide extensive feedback (based on what is known and accurate) to author(s).

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Call for Papers
Review of Management Innovation & Creativity

The Review of Management Innovation & Creativity (RMIC) is seeking submissions of original articles on current topics of special interest to practitioners and academics. Research or application oriented articles that describe theoretical explanations and original developments of managerial perspectives across a wide range of fields including: the social sciences and humanities, public policy, administration, engineering, business, education, science, technology and the arts will be considered for publication in the journal. Scholars who are interested in, and wanting to explore and develop, complex compositions and linking incongruent elements to knowledge, and integrating them conceptually on a creative scale are encouraged to submit papers.

All articles are refereed by a rigorous evaluation process involving at least three blind reviews by qualified academic, industrial, or governmental professionals. Submissions will be judged not only on the suitability of the content, but also on the intellectual framework and significance to society in general. All papers are peer reviewed.

The Executive Editorial Board (EEB) of the Review of Management Innovation & Creativity (RMIC) strongly encourages authors to submit their article(s) to an IIC conference prior to Journal consideration. Author’s who submit their articles to an IIC conference receive the benefit of feedback from the IIC Reviewers’ Task Panel (RTP) and conference attendees. This feedback generally improves the quality of submissions to the Review of Management Innovation & Creativity (RMIC). Articles that are accepted for presentation at an IIC conference have a higher likelihood of being published in RMIC.

RMIC solicits only original contributions that have not been previously published or submitted elsewhere, with the exception of a submission to IIC refereed conference proceedings. Note! IIC refereed proceedings are a partial fulfillment of Intellectbase International Journals. Papers awaiting presentation or already presented at IIC conferences must be revised (ideally, taking advantage of feedback obtained at the conference) and have a slightly modified title to be considered for journal inclusion. All manuscripts selected for publication must maintain a high standard of content, style and value to the readership. Acceptance criterion for manuscript publication is based on research innovation and creative excellence.

RMIC REVIEW PROCESS
The author submits his/her paper electronically and the paper is sent to the Managing Editor. A confirmation of receipt will be e-mailed to the author(s), usually within 2 days of your submission. The Managing Editor assigns the paper an ID number, removes author(s) names and affiliations, and sends the paper to reviewers. Reviewers usually have 2 weeks to perform the review; however, on occasions the reviewer may take up to 4 weeks to complete a review. Once review comments are returned, the Managing Editor puts them together and provides the original paper and the reviews to the Editor-in-Chief. The Editor-in-Chief, based on the comments of the reviewers and his reading of the manuscript, forms an overall recommendation regarding publication. On occasion, the Editor-in-Chief will consult the Senior Advisory Board and if necessary, request that an additional review be performed. Once the Editor-in-Chief has formed an opinion on the acceptability of the paper, an email will be sent to the corresponding author of the outcome of the review process. The full review process currently takes anywhere from 1-4 weeks from receipt of manuscript.

SUBMISSION INSTRUCTIONS
RMIC only accepts electronic submissions of manuscripts. To submit a manuscript for the review process, you should send an email with the paper as an attachment to rmic@intellectbase.org. In the body of your email message include the author(s) name(s), contact information for the corresponding author, and the title of your submission. Your submission will be acknowledged via return email. All submissions must be in English and in Word format.

Page 1 of your submission should contain the title of the paper and should identify all authors, including authors’ names, mailing addresses, and email addresses. Authors’ names should not appear anywhere else in the
manuscript, except possibly as part of the reference list. Author details should be followed by an Abstract of 200-500 words. Following the Abstract, Key Words should be identified and the Key Words are followed by the text of the paper.

The manuscript must be single-spaced, contain a single column, utilize 11 point Arial Narrow justified font, and contain 1” margins on all sides.

**TITLE**

Centered across the top of the first page, 16 point Arial Narrow bold font, all letters capitalized.

**MAJOR HEADINGS**

14 point Arial Narrow bold font, left aligned, all letters capitalized.

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13 point Arial Narrow bold font, left aligned, capitalize each word.

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No blank line is to appear between a sub-heading and the text. Tables and figures should be included in the text, approximately where the author thinks that they should appear. Manuscripts must be edited for spelling and grammar.

Reference citation ordering and format must follow Harvard (or APA) Style referencing. Reference entries should be ordered alphabetically (in text and Reference section) according to authors’ or editors’ last names, or the title of the work for items with no author or editor listed. Any reference contained in the text must be included in the Reference section and vice versa.

References in the text should be of the format: (Harris et al., 1995; Johnson, 1996). Quotes from a source should include the page number (Johnson, 1996, pp. 223). References must be complete.

The paper should not normally exceed 10 single-spaced pages, including all sections, figures, tables, etc. However, the Editor-in-Chief reserves the right to consider longer articles of major significance.

Electronic submissions should be sent to RMIC@intellectbase.org. Please visit the Intellectbase International Consortium website: www.intellectbase.org for further information.
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SEGMENTATION STRATEGIES FOR IMPROVED ENROLLMENT AND RETENTION LEVELS – A CASE STUDY IN HIGHER ED MARKETING

Laura Blake and Kevin Mayne
Mitchell College

ABSTRACT

There are inherent challenges in providing a single service (education) to a diverse target market – of varying learning abilities, skill sets and levels of academic, emotional and social readiness. The purpose of this paper is to discuss the niche and market segmentation strategies Mitchell College has adopted to better compete in the highly competitive and dynamic post secondary education market.

Based on newly identified segments, we have devised a strategic initiative that has generated new avenues for recruitment, opportunities for improved prospect identification, increased enrollment numbers, improved retention levels and an additional revenue stream to the college – all before students begin their freshman year.

Keywords: enrollment, retention, marketing strategies, segmentation, higher education marketing

STUDENT ATTRITION AND THE REVOLVING DOOR SYNDROME

“Approximately 50 percent of the freshmen enrolled in colleges and universities drop out before completing their programs; nearly one-third of college freshman do not return after the first year.” (Schertzer and Schertzer, 2004; Brawer, 1999 and Cravetta, 1997)

These statistics result in a “revolving door syndrome” with consequences of high student turnover, that quickly translates into increased recruitment costs, lost time and increased recruitment efforts to deliver a new influx of recruits to supplant the steady stream of outgoing students.

Theories abound as to why. Recurring themes in the literature include: “…insecurity about college expectations; uncertainty; transition/adjustment problems; financial difficulties; low institutional commitment; academic under-preparedness and lack of maturity.” (Drew, 1990 as cited in Schertzer and Schertzer, 2004)

READINESS, FIRST-TERM ACADEMIC SUCCESS AND RETENTION

The education literature also suggests that first-term academic success and performance have a significantly strong relationship to retention. (Hoyt, 1999 as cited in Byrd & McDonald, 2005, Tinto, 2003) However, fostering success and performance becomes a challenging prospect against the backdrop of statistics detailing student academic under-preparedness upon entering into a postsecondary program of study.

Educators express concern that today’s students are falling short when it comes to mastery of the basics. McCabe, (2002) in a national study of community college education states that “41% of entering community college students and 29% of all entering college students are under-prepared in at least one of the basic skills of reading, writing and math.” (Byrd, McDonald, 2005)

Additionally according to a study conducted by the NCES, “over 25 percent of all students entering college need remedial education, or courses that raise a student's general competency to the minimum required levels in the
subject areas determined by a college or university. In some states, as many as 50 percent of high school graduates needed remediation in their first year of postsecondary work.” (NCES, 1996)

**Adding Learning Disabilities to the Mix**

And while under-preparedness is not a new problem for colleges and universities (Maxwell, as cited in Platt, 1986, Byrd & MacDonald, 2005), colleges are currently seeing a rising number of new students who enter with documented learning disabilities – 40.4% in 2000 (Henderson, 2001) – further challenging the issue of how to proactively foster first-term student success.

In a perfect world, students diagnosed early on with a learning disability would receive instruction to develop learning strategies and social skills designed to help them become successful independent learners in the college setting. However, if we are seeing a deficiency of outcomes in the fundamentals of math, reading and writing, how can we expect students to develop and excel in the organization, time management, problem-solving, study, and social skills they will need in the postsecondary setting?

The current approaches to fostering academic success and improving retention include tutoring centers, Learning Resource Centers, First-Year seminar instruction and curricula, remedial coursework and mentoring programs, to name a few.

**MITCHELL’S CHALLENGE**

Much like business institutions, higher education institutions are expected to meet increasing demands for efficiency, effectiveness and improved performance – in other words, better quality of services in an increasingly global marketplace.

Borrowing from traditional business doctrine, “it is more cost effective to keep the customers you have than to constantly attract new customers,” it seems that the same logic should apply to academic institutions. (Schertzer & Schertzer, 2004) Business experts suggest that the cost of obtaining a single new customer is five times greater than the cost of retaining an existing customer. In fact, increasing customer retention by 2 percent can have the same effect on profits as reducing costs by 10 percent (Lamb, Hair, McDaniel, 2006).

We asked ourselves, “If marketing and recruitment dollars are continuously being re-invested to replace our customer base, then what is the opportunity cost lost due to dollars not invested in other critical areas of service quality?

| Student under-
| High student turnover |
| marketing/recruitment |
| Preparedness & dropout rates |
| Lack of Maturity Low retention |
| Higher costs |
| Increased efforts needed to Deliver new students |
| Lost opportunity costs to Improve service quality |

**Leveraging Mitchell’s Existing Niche in the Marketplace**

Mitchell College has long been known as a college whose primary strength has been the ability to provide a transforming educational experience in a caring and supportive environment. The core of this philosophy is based in the College’s renowned academic support programs, in particular, the nationally recognized LRC or Learning Resource Center and support services. Additionally, Mitchell offers the following:

- Full cadre of professional content tutors
- Faculty: student radio of 12:1
- Emphasis on student asset development; not deficit management
- Extensive faculty/staff professional development
Analysis of the Market
With our market niche firmly crystallized, we set out to analyze the market to define and refine our target segments:

**Market niche** - emphasis on superior education and support services for a narrowly defined target market whose needs are not being met by mainstream providers -- students with untapped potential (under-prepared or mid-achievers), diagnosed learning disorders and AD/HD;

**Consumer need** – comprehensive academic support services beyond remediation courses in a learning environment designed to best meet those specific needs;

**Service** – is clearly defined as 2- and 4-year postsecondary educational programs in the areas of liberal arts, professional studies and early childhood education plus the newly launched Thames Academy, an extension of our services for newly identified market segments.

In order to promote academic success and retain customers, we’ve set out to devise strategic initiatives that leverage our strengths within the current higher education marketplace.

FROM CHALLENGE TO OPPORTUNITY
Mitchell College was founded in 1938 as a private, nonprofit, coeducational, two-year college in New London, Connecticut. It has since grown, under Mitchell’s current leadership, offering its first baccalaureate program in the area of Human Development in 1998. Since that time, ten additional four-year degrees have been added to Mitchell College’s programs of study. Today, Mitchell College is a thriving institution of higher education that grants both associate and baccalaureate degrees to students from the greater New London community, as well as from all over the nation and around the world.

**Mitchell’s Core Competency**
Mitchell College has long been known as a college whose primary strength has been the ability to provide a transforming educational experience in a caring and supportive environment. The core of this philosophy is based in the College’s renowned academic support programs, in particular, the nationally recognized Learning Resource Center for students with diagnosed learning disabilities and AD/HD.

**Defining New Segments**
When devising marketing strategies, we defined new segments to target:

- **“Late Bloomers”** – students in need of additional academic preparation and perhaps lacking in social maturity as well; indicators of social immaturity may include difficulty w/ peers, staying focused on tasks, following directions and completing work independently.
  - Ages 17 – 19 years
  - High school seniors or graduates
  - Currently living w/ parents or guardian
  - Demonstrate previous academic under-performance/achievement
  - Desires/requires supplemental educational support to develop skills
- Looking to improve academic records, exhibit one or more indicators of academic under-preparedness; lack of motivation, career indecision, poor academic records; poor entrance exam scores, or low institutional commitment.
- Evidence of social immaturity; difficulty w/ peers, staying focused on tasks, following directions and completing work independently (perhaps an early entrance to kindergarten prior to 5th birthday)
- Family HH Income of 60K+

• “Academic launchers” – students looking to improve academic records, who exhibit one or more indicators of academic under-preparedness; lack of motivation, career indecision, poor academic records; poor entrance exam scores, or low institutional commitment.
  - Ages 18 – 24 years
  - HS or GED graduates
  - Living with parent/guardian or independently
  - Wish to launch academic career but recognizes a need for “catching up” to college levels of preparedness
  - Wish to sharpen skills overall
  - Looking to improve academic records, exhibit one or more indicators of academic under-preparedness; lack of motivation, career indecision, poor academic records; poor entrance exam scores, or low institutional commitment.
  - Long term college goals may still be unclear.
  - Family HH Income 60K+; independent HH Income 25K+

• “Academic enhancers” – students looking to gain a competitive leg up either in athletics or to enhance learning skills and explore new interests.
  - Ages 17 – 19 years
  - Currently living with parent/guardian
  - Most likely interested in future transfer to an alternative 4-year institution;
  - Demonstrate strong athletic ability and history but may need to continue to develop both athletically and academically for acceptance into alternative.
  - Family HH Income of 75K+

• “Career Changers” – with the current trends in career improvements and changes, these students are typically looking to make a career transition or distinct career change later in life.
  - Ages 40+, Baby Boomers
  - Full time professionals/employees
  - HH Income of 55K+
  - Homeowners w/ high financial commitments
  - Wish to transition into new career utilizing existing professional experience and skill sets.

• “Career Enhancers” - a largely growing segment in today’s corporate society, these students are looking for educational advancement for improved professional growth.
  - Ages 21+
  - Employed full-time
  - Some College and/or Associates degree
  - Living independently or still w/ parents
  - Seeking to complete/earn bachelor’s degree
  - HH Income of 30K+

• "PEN's" (Prosperous Empty Nesters)
  - Ages 55+
  - Educated, married or single
  - Transitioning from child rearing to retirement
  - HH Income 70K+
  - Home owners who value physical and financial well being, leisure activities, civic participation and volunteering
- Seeking courses for college credit or simple edification, beyond traditional Adult Ed type classes offered free of charge at local high schools.

Once segments were identified, we began to match program offerings and seek out new programs and initiatives to meet specific needs and benefits for the respective segments.

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>College offerings</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late bloomers</td>
<td>Thames academy – Post Graduate or 13th years typically offered by prep or public high schools</td>
<td>Launched, Fall 06</td>
</tr>
<tr>
<td>Academic launchers</td>
<td>Mitchell college 2 and 4 yr degree programs</td>
<td>4 year launched in 1998</td>
</tr>
<tr>
<td>Academic enhancers</td>
<td>Dual degree programs</td>
<td>In planning</td>
</tr>
<tr>
<td>Traditionals</td>
<td>2 and 4 yr degree programs, full and part time</td>
<td>Launched, 1998</td>
</tr>
<tr>
<td>Career changers</td>
<td>ReSume program – encourages final completion of long term degree attainment</td>
<td>In planning</td>
</tr>
<tr>
<td>Career enhancers</td>
<td>Certificate programs</td>
<td>Launched, 2007</td>
</tr>
<tr>
<td>PEN’s Prosperous Empty Nesters</td>
<td>Premium adult education courses</td>
<td>In planning</td>
</tr>
<tr>
<td></td>
<td>Certificate programs</td>
<td>Launched, 2007</td>
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</table>

DEVELOPING RELEVANT PROGRAMS FOR IMPROVED ENROLLMENT AND RETENTION ~ THE LAUNCHING OF THAMES ACADEMY

We set out to devise a program strategy that would achieve the following objectives:

- Generate new avenues for recruitment
- Provide additional opportunities for improved prospect identification
- Increase enrollment numbers
- Improve retention levels
- Generate programs for additional revenue streams

With an initial emphasis placed on the “Late Bloomers,” “Academic Launchers” and “Academic Enhancers” target segments, we’ve designed Thames Academy – a post-grad (PG) or pre-college transitional experience, currently being marketed to high school and preparatory school seniors. It is a year of academic preparation that students take between the end of their secondary school/high school education and the start of their formal college studies, often referred to as the 13th year in secondary education literature. Traditionally this program is offered on high school and preparatory school campuses – away from the true college environment.

What sets Thames Academy apart from the traditional post-grad programs at independent or prep schools is the provision of college level courses for credit and its location directly on the Mitchell campus site – a marked point of differentiation.

The Academy provides a highly structured and separate residential and academic program within a collegiate environment plus extra-curricular interaction with two-year and four-year students. The benefits derived for students include: improved study skills and board scores, strengthened academic preparedness, increased confidence, greater maturity and personal growth, adjustment to living and studying away from home, transition to a college environment at one’s own individual pace, the ability to earn up to 18 college credits prior to full-time college study and most importantly, a greater probability of achieving academic success at the collegiate level.

The benefits realized for Mitchell will include: increased opportunities for prospect identification, new avenues for recruitment, increased enrollment numbers, expected improved retention levels as we work to prepare students
for the rigors of collegiate life, an additional revenue stream, expanded geographic visibility and the ability to test pilot programs in a small, controlled environment before taking them college-wide (i.e., technology, 12-3-3-12 semester).

Ultimately Thames works as a feeder program for students to easily transfer into our two- and four-year programs.

**Transitional Positioning**

A year after Thames Academy’s program approval, the response was even stronger than forecasted. A goal of 30 enrolled students was established for this new transitional program. That goal was easily reached and surpassed. Once announced, interest in Thames Academy quickly grew. To promote the program, a Thames Academy brochure was developed specifically to reach out to the three identified market segments: late bloomers, academic launchers and academic enhancers. The brochure’s copy, along with targeted press releases to news media outlets, highlighted the program’s unique focus, benefits and populations served. Except for the design of this new brochure and the targeted press releases, recruitment for the program was folded into Mitchell College’s existing two-year and four-year admissions recruitment activities and marketing mix. This resulted in the receipt of 78 applications to the program in the first year. 41 students were accepted to the program and on August 26, 2006, 32 new students began their studies in Thames Academy. There was a wait list of 11 students. For Fall '07, the program increased to 35 new students and it is projected to be at 39 new students for Fall '08.

Of the 32 new Thames Academy students in Fall '06, the majority (62%) were from schools/regions outside of Mitchell College’s traditional market. 87% of the enrollees had not heard of Mitchell College prior to learning about Thames Academy. This trend has continued with the '07 and '08 classes as well. As predicted, the addition of the Thames Academy program opened new avenues for recruitment that had otherwise been closed to Mitchell College. Independent educational consultants on the west coast and southern states had previously shown little interest in Mitchell College. The same can also be said for both public and private high schools in these regions. Although Mitchell College offers one of the country’s strongest programs for students with documented learning disabilities and AD/HD, west coast and southern consultants still had difficulty ‘selling’ the program to their families. Other, similar and even weaker college LD support programs on the east coast were more established and possessed stronger brand awareness. Similarly, with the exception of pockets of interest in Mid-Atlantic states, Mitchell College’s draw had been restricted to the New England region. However, with the addition of the new unique Thames Academy program, curiosity throughout the country is now growing. Where once Mitchell College possessed only regional visibility, it has begun the process of expanding its reach nationally.

Specifically, adding Thames Academy to Mitchell’s existing two-year and four-year degree programs reinforces the College’s commitment to holistic student development, the support of individual learning differences and the nurturing of untapped academic potential. Mitchell’s brand is now more clearly defined, and while its reach has been broadened geographically, its market niche has been more closely identified. As a result, adding to Mitchell’s product line via Thames Academy has created a shift from short-term external brand management to a more long term, competitive and promise driven focus that is not only top down directed, but has resulted in community buy-in from within the organization.

**Recruitment, Retention and Respect**

Thames Academy is opening doors for Mitchell College that are benefiting recruitment activities. In looking at Thames Academy's introduction from a retention viewpoint, it also offers many additional benefits not found at other colleges and universities. First, and foremost, it is providing students with skills and support they could not obtain elsewhere. In addition to the ability to earn 18 college level credits in a structured and supportive environment, Thames courses are taught by learning and writing specialists. These highly trained instructors are not only proficient in the identification of learning styles, but philosophically they are able to work from a foundation of asset development rather than deficit management. Inherent in this approach is a focus on such critical components to success as self-esteem and motivation.
Thames utilizes a number of distinctive features that are being tested or piloted. These initiatives are new to the education landscape and, if successful, can be implemented on a broader scale with Mitchell’s two-year and four-year degree community. The unique size and focus of Thames Academy provides the perfect ‘incubator’ for the launching of innovative programming. These features include:

- A unique 12-3-3-12 calendar which aligns specific coursework with content delivery approaches tailored to learning preferences and modalities. Rather than the traditional ‘one size fits all mentality’ to education, Thames Academy is geared to the specific population of students it seeks to serve – with one specific goal – student academic success. The unique calendar was designed in a ‘bitable chunks of time’ format to break up the coursework in such a way that the knowledge and content of the courses are ‘digestible’ and do not conflict with one another. An example of this can be seen in the teaching of math, determined to be the area that not only has the highest level of anxiety, but also the content area that is the weakest for 95% of this population. To address these issues, Thames Academy students’ math course is delivered alone over the two 3-week sessions. During this time, aside from a recreation course, they are totally immersed in math, and only math. The other courses (two English, two humanities and one first-year seminar class) are delivered in 12-week sessions vs. the traditional 15-week model utilized by most colleges. The 12-week model allows for more time on task (students meet for class five times per week as opposed to three). One of the main reasons for the development of this calendar was based on the previous success of 3, 4 and 5-week courses offered during Mitchell College’s winter inter-session and summer courses. Certain courses taught during these sessions were found to have a more positive impact, in terms of grade attainment, student satisfaction and retention.

- Group and individual projects tied into coursework and potential career paths. The group projects enable students to first learn from one another before approaching challenges individually. They also enable students to create projects that encompass other learning styles and sensory stimuli: visual, auditory, olfactory, taste, and kinesthetic.

- The incorporation of the latest advances in educational technology allows students to capitalize on their unique learning styles. Thames Academy will utilize assistive/adaptive technology equipment for specific disabilities, as well as e-portfolio, hybrid online/classroom instruction, wireless laptops, etc.

- Supplemental workshops in a variety of areas such as oral and written communication, leadership, group dynamics and teambuilding build upon classroom instruction.

Above all, Thames Academy’s highly structured environment eases students into the rigors of college life. Not all students grow and mature at the same rate. Not all students are ready to handle the traditional freshman course load and the demands of being a college student. The best analogy is to equate Thames Academy to that of scaffolding around a building. As the building is constructed, the scaffolding falls away until the building is on solid footing. So too does the structure around a student in a transitional program. As the student grows and develops, the structure is decreased and the student is prepared to function independently. Thames is that scaffolding – it is a retention tool that attacks potential attrition challenges before students enter the traditional freshman year of study. It is an approach of ‘preventive education’ rather than the traditional model of ‘educational triage’ when a student has failed and it is too late to have an impact.

Ultimately, Thames Academy is a program that has the byproduct of building respect. It is respecting individual student differences and providing them with the tools they need to be successful. It is also about instilling pride in a college that has long embraced these differences. Thames Academy has helped Mitchell College to clarify its brand, its promise, and its positional choice in the education marketplace. In so doing, it is creating a niche for the College and strengthening its respect and reach.

**RATIONALE ~ THE STUDENT AS CONSUMER**

*“Today, colleges must recognize that students are valued consumers and that a college priority is to make certain students are satisfied with their college experiences. If the institution fails to look at, value*
and strive toward student satisfaction then the consumer, in many instances, will simply transfer to another college.” (Stalnaker, 1994, p.8 as cited in Kerlin, 2000)

Survival requires a marketing-driven approach whereby the Department for Marketing and Enrollment must continue to improve the structure of its marketing efforts, differentiate the College from the competition, and ultimately match and meet customers’ needs with the institution’s overall mission. In doing so, we believe our objectives of retention and enrollment improvements will allow the college to continue to invest in quality of programs and services leading to greater customer satisfaction on the whole.

MEASURING EFFECTIVENESS – RESULTS TO DATE

Although the program is still in its infancy, lessons are already being learned. The first is that while the program has been completely embraced by the learning disabilities community it has been more difficult tapping into the traditional prep-school market. Prior to launching Thames Academy, the College had researched over 100 existing PG programs at private secondary schools. It was anticipated that due to Thames’ unique ability to offer college credits (something that the other schools could not do) that it not only could easily position itself into this market, but that it could quickly dominate the market. This was a rather naïve prediction. The main reason is due to the College’s lack of accessibility in penetrating such a closed market. As the College is not a secondary school, memberships in leading organizations such as the NAIS, National Association of Independent Schools, is not available. As such, invitations to college fairs targeting PG-interested students are also not an option. As Thames Academy moves forward, new methods of how to wedge itself into this market will need to be developed.

A second, and important lesson learned thus far is the importance of forging partnerships. As with any organization today, you are judged by the company you keep. Also, in light of limited resources in today’s economy, partnerships are an invaluable way to share costs and provide cross promotional activities. Fortunately, this lesson was learned quickly and Thames Academy has been able to partner with educational agencies such as HECA (Higher Education Consultants Association) and IECA (Independent Consultants Association) to sponsor receptions and present at national conferences. In addition, Thames has worked with Quizdom, a maker of educational instruction software/hardware to pilot their clicker technology in two of Thames’ classes, as well as Connecticut Distance Learning for the e-portfolio program and Do What You Are for the First-Year Seminar’s classroom/online hybrid delivery of course content.

THE BOTTOM LINE

One of the most positive impacts of launching Thames Academy is its ability to provide an additional revenue stream for Mitchell College. As a small, tuition dependent college, Mitchell has been looking for programming that not only could bring in additional dollars, but is also mission related. Thames fulfills both of these requirements. As Exhibit 1 below highlights, Thames Academy realized a $632,600 profit in the first year and continues to grow steadily.

In year two, the program’s enrollment has increased to from 32 to 35 students and we are projecting an enrollment of 39 for the Fall ‘08-09 academic year.

Exhibit 1

<table>
<thead>
<tr>
<th></th>
<th>Year 1 06-07 actual</th>
<th>Year 2 07-08 actual</th>
<th>% Change</th>
<th>Year 3* 08-09 projected</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Enrolled</td>
<td>32</td>
<td>35</td>
<td>+9%</td>
<td>39</td>
<td>+11%</td>
</tr>
<tr>
<td>Matriculated to</td>
<td>16</td>
<td>18</td>
<td>+13%</td>
<td>20</td>
<td>+10%</td>
</tr>
<tr>
<td>Mitchell 4-yr program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit realized</td>
<td>$632,600</td>
<td>$652,000</td>
<td>+ 3%</td>
<td>$701,000</td>
<td>+ 8%</td>
</tr>
</tbody>
</table>

All the Thames Academy graduates from the pilot year ‘06-’07 who’ve continued at Mitchell have just completed their freshman year. Most intend to continue next fall as sophomores with the exception of two transfers
indicating an 87.5 percent retention rate which exceeds our general college rate of approximately 75% Fall to Fall semester. Additionally, 90% of Thames Academy graduates who have completed their freshman year are in good academic standing with an average GPA of 2.4. One additional student from the Fall '06 Thames class who chose to take a year off will be enrolling in Mitchell this fall. Our goal is to continue to track and monitor academic progress through their four-year stay as well as monitor the upcoming classes to continue to refine the program as they transition into the full college curricula.

REFERENCES

CRITICAL PRAGMATISM AND THE ‘NO MAN’S LAND’ OF MIXED METHODS RESEARCH: TOWARDS A REFLEXIVE AND DEMOCRATIC EPISTEMOLOGICAL APPROACH

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ABSTRACT

This paper examines the compatibility of critical research approaches with a practitioner centered blended methodology. A key emphasis is placed upon the utility of an evidence based practice informed by an empirically orientated critical theory. The authors advocate a critical pragmatism which is reflexive, sensitive to particularity and resists an ideological opposition to quantitative and qualitative approaches which constitute invaluable instruments of epistemic exploration and praxis.

Keywords: research, critical pragmatism, mixed methods.

INTRODUCTION: “PUTTING METHODS BEFORE QUESTIONS?”

As teachers and researchers in a faculty of education, we are aware of the unique characteristics of qualitative and quantitative research. These characteristics are perhaps too often pointed out to us by researchers from one genre or the other, each group of researchers making claims about the suitability of their favored genres for particular kinds of research questions. At the same time, we have a course on our books called Advanced Research Methods in Education, in which we attempt to introduce students to a third genre, critical/normative research, which emphasizes both the epistemic and ideological aspects of inquiry. Quite often, we meet with resistance and the repeated claim that one genre is better than another. Less often, students strive for compromise by locating themselves and their research within a mixed method paradigm, almost always involving some combination of a quantitative and qualitative research design, and ignoring the contributions of the critical genre. Yet, as James Swartz (2007) put forth so eloquently in his keynote address to the 19th Annual Ethnographic and Qualitative Research in Education Conference, “Putting methods before questions means research becomes a political statement meant to control the conversation about education...Knowledge is not value neutral and neither are the epistemological assumptions and methods meant to produce it. Certainly education is more a political than a value free professional endeavor” (p. 2)

Our point here is that all three research genres delve into educational interaction with an intention to study and improve educational practices. To privilege one way of knowing over another suggests a limited view of what it means to pose research questions in education, and, further, to seek a mixed methodology which overlooks critical questions of power and ideology is to neglect fundamental philosophical, epistemological and political issues for scholarship and pedagogy.

In this paper we examine the compatibility of critical research approaches with a practitioner centered blended methodology. We emphasize the benefits of an evidence based practice informed by an empirically orientated critical theory, and advocate a critical pragmatism which is reflexive, sensitive to particularity and resists an ideological opposition to quantitative and qualitative approaches. We will develop these understandings in a number of ways: first, we attend to the difficulties normally associated with methodological convergence, then we move on to provide an example in order to signify our emphasis on the pragmatic research concerns of practitioners. Finally, by posing questions about what theoretical justifications we might turn to in search of a compelling rationale for a pragmatic mixed methodological approach, we consider the work of Dewey, Freire, and Habermas, to ask more specifically about the types of pedagogical approaches which might prove receptive to an
evidence based mixed methodology and how we might link such an approach to pedagogical and educational institutional settings.

**BLENDING METHODS - CONFLICTS AND CHALLENGES**

Despite recent literature which urges the adoption of blended research methods (Greene 2005; Ercikan & Roth, 2006; Johnson & Onwuegbuzie, 2004), academics remain apt to create narrow criteria that reinforce epistemological boundaries which effectively interrupt inter-disciplinary dialogue (Riehl, 2006; Lather, 2004, p. 763). Most glaringly, critical research methods have often been left out of calls for methodological convergence, in part, due to the lack of any systematic attempt to consider the degree to which critical theory is amenable to quantitative and qualitative methods and designs (Johnson & Onwuegbuzie, 2004). Frequently, criteria of validity, comparability and translatability are viewed as incompatible with the emphasis placed by critical and postmodern approaches upon non referential semiotics and non unitary theories of subjectivity. Yet, despite methodological conflicts all conceptual paradigms require some means of identifying and assessing the “trustworthiness” of knowledge claims (Creswell & Miller, 2000). While quantitative paradigms may have difficulty assessing the influence of ideological factors upon “construct validity”, critical approaches are often reluctant to address empirical claims or to make empirical distinctions. And yet, even particularized or local knowledges, are premised upon general presuppositions which are used to assess the “believability” or coherence of knowledge claims. Despite our sympathies for critical approaches, the historical and political nature of educational discourse, we would suggest, implies the need to recognize the relevance of a democratic, epistemological pluralism if educational research is to remain both responsive and innovative. In a practitioner centered discourse, which is our main concern here, it would become necessary to develop a pragmatic research approach which examines both the ideological and epistemic aspects of inquiry through an evidentiary emphasis which is sensitive to the importance of theorizing – thereby developing a framework whereby theory helps to frame inquiry and inquiry informs theory.

It is our position that methodological differences can be bridged, in some respects, by a reflexive pragmatism centered upon a unifying conception of evidence and issue driven, theoretically informed research. Such a syncretic pluralism argues for a blended method which draws upon postmodern/critical views and encourages participation among quantitative, qualitative and critical researchers (Howe, 1988; Johnson & Onwuegbuzie, 2004). This reflexive approach would be concerned with the need to ground truth claims in practitioner centered conceptions of epistemological justification (Cherholm, 1992, p.16). Because we recognize the valueladeness of all inquiry, what we are seeking is a functional mode of distinguishing theorizing from empirical inquiry that is reflexive and sensitive to the social situatedness of research methodology. As such, our approach recognizes that theory informs the formulation, testing and interpretation of empirical findings while still maintaining the utility of quantitative and qualitative approaches for identifying correlational and causal factors relevant to the formulation of effective strategies for putting theory into praxis. The concept of evidence, we are suggesting, is a multi-disciplinary construct which has been practically applied in diverse fields, and is readily understandable to researchers and practitioners alike. As such, it does not deny the importance of power to the construction of knowledge, but emphasizes the need to cultivate a broader, pluralistic approach as an important adjunct to a democratic, educational dialogue.

Despite the perennial conflict between adherents of different educational research paradigms, we argue that there are significant points of epistemological and methodological convergence. We identify such points of similarity while highlighting the situated nature of educational inquiry as an inherently inter-disciplinary field informed by theoretical humanistic discourse, and, as a social science concerned with the empirical aspects of particular social settings. The methodologically oriented, pragmatic work of thinkers such as Dewey (1944; 1956; 1960; 1997), Freire (1970; 1988; 2005) and Habermas (1967; 1973; 1981; 2003) demonstrate that critical approaches are not inherently opposed to empirically oriented research. Similarly, we argue that quantitative and qualitative approaches can benefit from a more nuanced consideration of the interaction of power and institutionalized knowledge as a means of making research more praxis oriented, while safeguarding against forms of institutional bias. Although the inevitably situated nature of educational inquiry mitigates a purely scientific methodology, its empirical nature suggests the pitfalls of a monological theoretical adherence. A reflexive critical pragmatism,
therefore, is an issue oriented form of inquiry which emphasizes the importance of dialogue as a means of exploring collective values and identifying fields of inquiry prior to the construction and testing of concrete strategies for action. The aim, consequently, is to explore the possibility of a mixed methodology informed by theoretical sensitivity to issues of power and social justice so essential to a responsive model of democratic schooling.

According to Horn (2004), there is a fundamental epistemological difference between quantitative and qualitative methods which is relevant to both educational research and pedagogical discourse (Horn, 2004, p. 200). For quantitative researchers, the emphasis is upon maintaining an objective detachment by which causal or correlational relationships can be inferred, while, in contrast, qualitative researchers place greater stress upon the situatedness of knowledge and its subjective human origins. Quantitative research, then, is concerned primarily with predictive probability or establishing relationships between variables which may be described accurately and applied broadly across populations (Cohen, 2003, p. 109; Wiersma, 1995, p. 13). The ability to make generalizable claims lies in the uniformity of objective reality as manifested through similar subjects, settings, measurable causes and effects (Wiersma, 1995, p. 12). Typically this is accomplished by random selection and assignment (Cohen, 2003, p. 126; Wiersma, 1995, p. 112), however, within the social sciences, generalizability often requires an inductive assessment of the larger population which the experimental groups represent (Mertler, 2005, pp. 28, 319; Wiersma, 1995, p. 134; Campbell & Stanley, 1963, p. 5; Wiersma, 1995, pp. 112, 113). Indeed, more frequently, non experimental studies (correlative, casual comparative and meta-analysis) rely on sophisticated statistical techniques (such as structural equation modeling) to attempt to determine the absence or presence of relationships between variables (Cohen; Johnson, 2001, p. 8), although the emphasis remains upon empirical observation, quantification, and hypothesis formation as an aid to prediction and explanation (Johnson, 2001).

For the qualitative researcher, the process of research invokes a careful attempt through close observations to conduct “a series of successive approximations toward an accurate description and interpretation of the phenomenon” (Wiersma, 1995, p. 216). As a result, the qualitative researcher demonstrates a willingness to use empirical observation to ground propositions as evidence for epistemic claims as “to know truth requires an ecological view of [the] interplay between individual and object”, within the immediate institutional and cultural context (Horn, 2004, p. 200). As a research methodology, qualitative designs offer a specific advantage when conducting an in depth analysis of specific research settings, subjects or phenomena (Miles, 1984, p. 22). Qualitative studies typically do not use random sampling, but, rely upon “comparability and translatability of findings” (LeCompte & Goetz, 1982, p. 34). Generally, this means that “it is possible to assess the typicality of a situation, to identify possible comparison groups, and to indicate how data might translate into different settings and cultures” (Cohen, 2003, p. 109). As a result, within the qualitative research paradigm “criteria such as believability, credibility, consensus, and coherence” rather than considerations of “validity” are utilized (Feldman, 2003, p. 26). Qualitative researchers “return to their data over and over again to see if the constructs, categories, explanations and interpretations make sense” (Patton in Creswell & Miller, 2000, p. 125) until coherence of findings or saturation has been achieved (Creswell & Miller, 2000, p. 125). Cumulatively, such measures, together with “thick rich description” and a transparent account of methodologies, inference making and the coding of data, help ensure an “audit trail” which enables other researchers to make determinations regarding credibility and internal and external validity (Creswell & Miller, 2000, p. 129).

In contrast, critical approaches place even greater emphasis upon constructivist epistemologies and emphasize the emancipatory aims of the social sciences (Constas, 1998; Lather, 1991; Steinberg & Kincheloe, 1998). Although critical research shares the qualitative preoccupation with contingent subjectivity, it demonstrates less methodological uniformity and greater epistemological skepticism. While it is often claimed that critical thinkers reject the possibility of “objective” knowledge (or even reason itself) it is more accurate to say that such “concepts are situated rather than universal because they are understood differently within different epistemologies” (St. Pierre, 2002, p. 25). For the critical researcher, the constitutive function of language and the contestability of knowledge are generalizable constants which make truth claims contingent upon particular discursive contexts such that research is seen as inherently contested and political (Griffiths, 1995, p. 220). As contested and political, research is then intrinsically political and caught up within the particularized operation of power, as
relations of dominance create competing “truth regimes” in a complex interaction of economic, social and political realities. The critical researcher’s task is to provide insight into the organization of knowledge in relation to the hegemonic forces at work within culture – forces which are dominant but never uniform, meaning that a careful analysis can highlight fractured spaces in an apparently seamless hegemony. Such a standpoint is inherently pluralistic considering that any methodology can be a tool of praxis provided that it is used with an understanding of its relationship with the particular power-knowledge dynamics which have shaped its particular genealogy. However, given the subtlety of ideology, critical perspectives also articulate the need for a relational analysis guided by reflexive democratic principles within research settings where aims, issues and values are transparently defined and solutions collaboratively implemented.

Yet, to return to the broader issue of commonalities, regardless of the method used, a research “finding” only has meaning in relation to a hypothesis – some tentative articulation of the nature and aim of the particular empirical inquiry at hand (Lucas, 2003, p. 249). This is a complex issue related to theoretical as well as pragmatic, empirical considerations. Principally it involves a consideration of construct validity which, given the valueladeness of inquiry and the linguistically mediated nature of experience, is related to the researcher’s theoretical and ideological presuppositions (Cherryholmes, 1988; Quine, 1961). As Cherryholmes (1988) notes, “construct validity is discursive” (Cherryholmes, 1988, p. 447) meaning that “[a] construct and its measurement are validated when the discourse is persuasive” (Cherryholmes, 1988, p. 447). If we accept this premise, then, quantification alone cannot mitigate ideological factors sufficiently to justify foregoing an analysis of power, knowledge and discursive practice (Cherryholmes, 1988). This is because, quite simply, it implies that subjective decision making comes into play at all levels of the research process including: data collection, hypothesis formulation, choice of instrumentation, the construction of operational definitions and the interpretation of findings or results (Erickan and Roth, 2006, p. 17). Thus, since ultimately the transferability of research findings is contingent upon contextual exigencies, it would perhaps be more productive to conceptualize the fields of research as particularized “realms of meaning” (Phenix in Greene, p. 174).

By “realms of meaning,” we mean that each research methodology in practice demonstrates certain consistent means of truth testing which may allow us to infer some broad points of similarity across paradigms. Although research paradigms have characteristic epistemologies, research as a social activity necessarily implies: i) a community of standards capable of evaluating the validity of “truth” claims; ii) some critical capacity capable of making distinctions in relation to the coherence of findings or the degree to which truth claims meet adjudicable criteria; and iii) a conception of evidence which, despite the possibility of bias, enables the distinction to be made between empirical and non empirical statements (such as those found within a work of fiction). The value of a blended methodology, therefore, lies in its propensity to make novel approaches available to problems which have become entrenched within particular paradigms. Moreover, within the social sciences, problems often have a complexity which requires a broad investigation of empirical “facts” and phenomenological perception, as well as the influence of power and values. Thus, as opposed to reifying method, a blended methodology is problem oriented and views “competing” methodologies simply as interchangeable tools crafted for unique (and sometimes quite specific) pragmatic purposes. Given these differences, then, what are some points of theoretical and pragmatic convergence which might facilitate the development of a problem-based methodology?

SEE JANE RUN, CRITICAL REFLEXIVE PRAGMATISM: A BLENDED METHOD IN PRACTICE

Perhaps given our pragmatic emphasis an example might afford some insight into the complexities of many contemporary educative settings and the ability of a mixed methodology to speak to the critical, phenomenological and empirical aspects of many educational problems within today’s complex, demanding schools.

Jane Dawson is a new principal concerned with seeking consistency with regard to discipline in her school. She has been told too often that some teachers are soft, while others are strict, and that this situation creates confusion among students and conflict among teachers. After a rather heated staff meeting prompted by concerns raised by a group of parents, she reflects on her recent training and her experience as she tries to come to terms with her problem. Remembering her graduate level methodology and theory courses she begins to become
confused. Although she is drawn to qualitative approaches and prides herself on being a critical educator she does not know how to make sense of the myriad competing paradigms and the seemingly overwhelming complexity of her situation. Right away, Jane confronts the multi-faced nature of her problem. There is, for instance, the issue of definition, and concerns about correlation and cause and effect: what is inconsistent discipline and does it indeed cause confusion and conflict, or is there any correlation at all? How paramount is the situatedness of perception of the phenomenon? That is, how do different teachers perceive discipline within their unique positions in the same school? How do students and parents view the problem? And what about the rather pressing issues of power and values? Is discipline little more than a mechanism of social control? If so, why, and how is discipline defined, by whom, for what purposes? These issues of power, Jane realizes, also relate to the ways in which she can go about organizing and implementing a solution in an ethical, collaborative manner.

Seeing the date of the next staff meeting on her desk planner looming Jane realizes she must come with a comprehensive plan for a solution soon. With her head spinning with the audacity of the task before her, she picks up her pen and begins to plan an approach.

What Jane’s real world concerns reflect is the complexity of practices which are contextually contingent and require an understanding of a variety of research methods and teaching perspectives. Most importantly, it suggests the value of mixed methods approaches in providing insight into a variety of “realms of meaning” which influence the everyday reality of schooling. Let us then consider more closely how a mixed methodology can help Jane and her school in implementing a well considered, pragmatic solution.

As Jane’s predicament suggests, perhaps one way of encouraging practitioner collaboration within a rigorous, yet accessible, blended methodology is to conceptualize research as a process of uncovering and testing evidence. As noted by Reschler (1958), “the central and fundamental fact of the theory of evidence is that one statement may constitute evidence for another which goes beyond it in content” (Reschler, 1958, p. 93; Chrisholm, 1961, p. 748). To be clear, what we mean by evidence is the collection of sense data and experience which enables us to make tentative conclusions about the inter-subjective world – one which is mediated by language and available to the construction and testing of truths. That is, evidence is both a socially constructed and an experimental notion which is the cumulative product of “the intentional endeavor to discover specific connections between something which we do and the consequences which result, so that the two become continuous” (Dewey, 1944, pp. 145, 146).

For the moment we would leave aside the ontological status of this reality, and concentrate upon its intersubjective and linguistically mediated nature in the interests of engendering a productive, pragmatic debate on methodology. As such, despite its pitfalls, the notion of evidence has a number of benefits: i) it represents a means of distinguishing fictional representations and those grounded in direct sensory experience; ii) is a widely held concept recognizable to practitioners and researchers alike; and, iii) it is a concept which implies both “rigor” and a variety of ways of viewing and interpreting everyday reality (Mayer, 2003; Rescher, 1958, p. 94; Twining, 2003, p.9; Dewey, 1944, p. 146).

An evidence based, issue orientated methodology, then, allows for a heightened sensitivity to the dilemma of the educational practitioner who is forced to make real life judgments based upon the best information available, within a situated, institutional context (Chrisholm, 1961, pp. 747, 748; Winn, 2003, p. 369). As a critical mode of inquiry amenable to a diverse array of methodological approaches, it is premised upon the idea that knowledge claims must be “testable” and subject to scrutiny on the basis of shared epistemic criteria (Feldman, 2002, p. 26).

In Jane’s case, therefore, evidence needs to be uncovered that shows a relationship between confusion, conflict and inconsistent discipline. First, we could consider quantitative approaches since these methods may help Jane understand possible relationships between variance in disciplinary methods and teacher perception. Although these methods are not without their limitations, they can form part of a larger dialogue which helps synthesize the experiences of other principals and teachers with similar motivations acting within similar institutional cultures.

At the same time, it is important to remember that evidence is based in human experience, and, as such, remains open to phenomenological, hermeneutic or critical modes of interpretation. Decision making processes are highly
individualistic and decisions are as often based upon “a holistic story model” as empirical or rationalistic structural models (Twining, 2003, p. 15). Although the selection of inductive evidence and the assessment of individual narratives is primarily subjective (Twining, 2003, p. 15), policy decisions require specialized forms of knowledge informed by a carefully tested array of human experience. In this case, although Jane will benefit from examining the casual or correlational relationship between inconsistent discipline and students’ and teachers’ perceptions, this issue is also related to an understanding of why teachers discipline as they do and how they perceive their role in it. Undoubtedly, human perceptions are notoriously difficult to study using quantitative methodologies, and they are largely contingent upon the ways in which we define the pertinent constructs. Although all methodologies can be seen as proxies for experience, qualitative methods nonetheless allow us to move closer to some understanding of the puzzle of individual motives, thought patterns and the cultures to which they are symbiotically related.

Undoubtedly, then, the search for reflective equilibrium must consider that educational research takes its direction from particular social and cultural localities which include aspects of the imaginative, the artistic, the linguistic and the rational, as well as the empirical and positivistic (Gage, 1989, p. 7). Although determining “what works” sometimes requires detailed, careful quantitative investigation, it may also require a critical consideration of educational aims and the equally thorough context specificity provided by qualitative work. If we question whether discipline is a method of social control that disadvantages some students, for instance, critical or qualitative studies may provide rich insight into how discipline uses cultural practices to regulate behaviour and how these practices are formed, maintained and perceived by those within particular educational settings. Thus, Jane’s example reminds us that methodological diversity is to be preferred to a monological mode of inquiry which subjugates questions of design to an unreflexive ideology (Lather, 2005, p. 7; Winn, 2003, p. 372; Gage 1989; Mayer, 2003; Winn, 2003).

SYNCRETIC PRAGMATISM AND THE SEARCH FOR CONTINGENT RATIONALES: LINKING RESEARCH & STUDENT-CENTERED CRITICAL PEDAGOGIES

Aside from Jane’s own particular problem, then, what theoretical justifications might we turn to in search of a compelling rationale for a pragmatic mixed methodological approach? More specifically, what types of pedagogical approaches might prove receptive to an evidence based mixed methodology and how can we link such an approach to pedagogical and educational institutional settings?

While this is a complex question and there are no perfect theoretical models, there are educational theorists who might prove conducive to such a broad based pragmatic approach. For example, as some scholars have suggested, Dewey’s transactionalism may provide a useful means of overcoming methodological rigidity (Howe, 1988; Garrison, 1994; Parawat, 1995; Phillips & Burbules, 2000; Morris, 1999). For Dewey, questions concerning ontology do not necessarily lead us to a corresponding theory of truth as there is no a priori reality existing apart from a linguistically mediated social experience (Fenstermacher, 1998; Garrison, 1994, p. 7; Morris, 1999; Garrison, 1994; Dewey, 1944, p. 342; 1956; 1960; 1997). Dewey argues that both the positions of the rationalist and the empiricist are reductive as they fail to recognize the way in which social experience creates ideas through action and communication (Garrison, 1994, p. 7; Morris, 1999; Dewey, 1944). The critical formulation and reformulation of hypotheses in relation to social experience, therefore, is an indispensable part of democratic education (Phillips, 1983, p. 5). Consequently, “knowing is not isolated from practice but is itself a kind of practice—to be judged...by its purposive success rather than by some supposed standard of reflection of its objects” (Haack in Fenstermacher, 1998, p. 471). Thus, rather than differentiating between subjects and the objects they act upon, Dewey argues that both “subject” and “object” derive their meaning from the socially situated transactions in which human knowing and doing occur (Dewey, 1997).

Research, then, does not deal with a pre-existent ontological structure so much as it confers order and being upon the world by posing epistemic problems rooted in the commonalities of language and human social experience (Garrison, 1994, p. 11; Fenstermacher, 1998, p. 472). Democratic truth finding problematics are necessary.
because they are receptive to the exigencies of social activity (Garrison, 1994, p. 13; Morris, 1999). Pragmists like Dewey, then, to the relief of practitioners like Jane, would perhaps caution us about focusing on “pseudo problems” such as the viability of a correspondence theory of truth or positivism’s preoccupation with defining the essence of a transcendent or foundational reality (Howe, 1988, p. 15; Baert, 2005).

For Dewey, as for Jane, research, teaching and learning are not discrete, but interconnected and inextricably linked to the individual’s ability to become a member of an active, critical learning community (Dewey, 1944, p. 344, 345; Dewey, 1997, p. 59). Thus, Dewey’s constructivism is centered on the idea that there is social and epistemic value to the process of sense making by the student of the collective social world. That is, the process of learning requires more than the simple transfer of knowledge; it requires understanding attained through the learner’s active engagement (Dewey, 1944, p. 146). In short, by legitimizing the students search for knowledge Dewey’s instrumentalism ameliorates the longstanding distinction between authoritative pedagogy and the epistemic practices of students on what are essentially pragmatic and democratic grounds.

Yet, while Dewey’s work is often acknowledged as “progressive” and is notable for its emphasis upon constructivism and experimentation, in some respects it fails to provide a methodology which is open to the realities of oppression and the expression of subaltern voices. These voices are those of the students who are often left unheard, by virtue of inter-related aspects of class, race or gender. In this respect, Dewey’s emphasis upon dialogical constructivist learning finds a more “radical” emphasis in the work of the late-Brazilian critical educator and theorist, Paulo Freire (1970; 1998; 2005) which expands the link between pedagogy and the notion of students and teachers as researchers of a shared social reality.

Freire’s problem posing education requires students and teachers to become co-investigators of a shared reality as they code cultural experiences and use this knowledge to undertake individual acts of praxis (Winterowd, 1983, p. 32; Ronald & Roskelly, 2001; Freire, 1970, p. 97). Coding allows the learner to foster an awareness of a life world in which he or she was previously immersed. This process is crucial if the individual is to come to uncover the dialectical operation of generative themes immanent within a given historical socio-cultural reality (Miller, 1998, p. 13; Freire, 1970, p. 86). For Freire, the emergence of critical consciousness, i.e., conscientization, is inextricably linked to the process of dialogical inquiry and a dialectical, praxis orientated interaction between empirical inquiry and reflective dialogue within a collaborative democratic community (Gottleib & La Belle, 1990, p. 6).

In Jane’s case this community would include teachers, students, parents and administrators as they examine the need for, and functioning of, discipline within democratic institutions such as schools. Rather than seeing her problem as how to best implement a unilateral administrative solution, Jane could use dialogue to gain a sense of the values, perspectives and disciplinary practices of parents, teachers and students. Jane could use focus groups and round tables as she sought the collaborative input of parent teacher organizations and student groups to gain a sense of community expectations in order to develop a disciplinary policy which is both effective and just. In this way students and parents as well as teachers gain a sense of the nature and functioning of democratic forms of authority which are essential for effective classrooms, communities and schools.

Freire does not suggest, however, that conscientization implies the freedom to develop any particular coding. Rather, epistemic investigation requires an iterative comparison of shared cultural constructions whose authenticity can be tested through critical dialogue. Conscientization seeks to cultivate, not an apolitical relativism, but “a critical perception of the world, which implies a correct method of approaching reality in order to unveil it” (Freire in Miller, 1998, p. 14). Although Freire’s model recognizes the influence of power upon knowledge, it does not lead to a radical skepticism which denies the possibility of ideological neutrality. Instead, method facilitates critical agency provided it is both transparent and reflexive. The emphasis is not upon a polarized rationalist—empiricist dichotomy, as Freire himself acknowledges: “[n]either objectivism nor subjectivism, nor yet psychologism is propounded…but rather subjectivity and objectivity in constant dialectical relationship” (Freire in Greene, p. 442). Although a holistic view requires the tension and insight provided by a spectrum of epistemological perspectives, this does not necessarily imply the absence of either a method or a pragmatic claim to truth(s) (Ronald & Roskelly, 2001). But, what does Freire mean by such a critical faculty and how does it relate
to the functioning of knowledge within the broader democratic society? How readily can Jane, as an institutional representative, entertain the possibility of such a radical critique as a key part of the blended methodology we are seeking here? Moreover, how can we conceptualize the nature of the relationship between teaching practice, research and theory in ways which are pragmatic and yet which still provide a measure of critical understanding?

Jane might be given further insight into these issues by the renowned German critical theorist, Jurgen Habermas (Greene, 1994, p. 442). Despite its highly abstract nature, Habermas’s work demonstrates empirical tendencies and emphasizes the testable nature of its claims (Cohen, 2000; Blaug, 1997; Chriss, 1995, p. 546; Berezin, 1997). For Habermas, a central concern is the justification rational agents provide for argumentative claims which are possible because of discursivity’s procedural requirements (Okshevsky, 2004; Chriss, 1995; Habermas, 1981). Accordingly Habermas emphasizes the importance of “warrants” which can be used persuasively and imply an appeal to a common value standard (Okshevsky, 2004, p. 177; Habermas, 1981) as is reflected in the fact that “true or correct statements are not valid for you or me alone [but]…must admit of justification by appeal to reasons that could convince anyone irrespective of time or place” (Habermas in Okshevsky, 2004, p. 178). Habermas’ view, therefore, presupposes that we can assess the relative worth of ethical, social or empirical claims through a rationalistic communicative “universality” (Chriss, 1995; Habermas, 1981). Habermas would say then, that this rational discursive capacity provides the means to engage students and teachers in a constructive solution responsive to the particular exigencies of the dialogue’s participants.

However, despite this orientation towards discursive requirements which make universal truth claims possible, Habermas contends that theoretical facility is not a replacement for an empirical examination of particular communicative settings (Cohen, 2000, p. 31; Blaug, 1997, p. 101). In his view, communicative and instrumental forms of rationality are separate but interdependent capacities which each make essential contributions to defining historically situated problematics and collaborative solutions within the public sphere. As a result, critical researchers influenced by Habermas have been led to “investigate the circumstances surrounding the communicative interactions undertaken in a wide variety of spaces” (Parkin, 1996, p. 425). Although sometimes admonished for his heavily theory laden critique, then, Habermas leaves the door open for concerted critical work which carefully examines concrete opportunities for action (Blaug, 1997; Parkin, 1996; Holub, 1991). More importantly, Habermas’ notion of discourse provides us with a means of inter-disciplinary engagement which is consensus building and rooted in pragmatic problems rather than narrow methodological presumptions (Habermas, 1967; 1973; 2003). Thus, in light of his theory of communicative action, we might say that educational researchers need a broader communicative discourse to facilitate a pragmatic consensus in which coordinated instrumental action can occur. Habermas’ work also provides us with a means of resisting the “splitting off” of research discourse from the life world of practitioners such as Jane as we seek ways of reconciling “the autonomy of the segments treated by the specialist and their separation from the hermeneutics of everyday communication” (Habermas in Greene, 1994, p. 441).

Jane and her school community, then, can take solace in the fact that all three theorists, advocate an involved social theory which views critical awareness as a precursor to transformational change. Moreover, they each hold out the possibility of constructing general standards for assessing the relative value of truth claims through involved critical work, which, like research itself, is systematic, analytical, and rooted in discursivity. As such, they provide valuable insight into the struggle to engender a reflexive and collaborative research community. Dewey’s instrumentalism, like the universal pragmatics of Habermas, holds forth the possibility of generalizable knowledge tested by “rational” social agents such as Jane and her staff. Likewise, while perhaps more situated, Freire’s revolutionary pedagogy is also premised upon a dialogical process which entails, not only agency, but also, the need to test new codings of social reality by a critical comparative process. All three, then, represent a model for critical work, which, though theory intensive, is not radically skeptical or divorced from more “quotidian” conceptions of “reasoning”, justification or “truth” testing.
CONCLUSION: PUTTING QUESTIONS FIRST, TOWARDS AN INSTRUMENTAL SYNTHESIS

Despite widespread theoretical differences within the academy and among researchers, Jane’s very pragmatic dilemma reminds us that all conceptual paradigms require some means of identifying and assessing the “trustworthiness” of epistemic justifications (Creswell & Miller, 2000). While quantitative paradigms may have difficulty assessing the influence of ideological factors upon construct validity, the non referential semiotics of postmodern methods raise difficulties in distinguishing empirical claims. Yet, even particularized or local knowledges are premised upon general presuppositions which are used to assess the believability or coherence of epistemic claims. In a practitioner centered discourse it is necessary to develop a pragmatic research approach which examines both the ideological and epistemic aspects of inquiry through an evidentiary emphasis which is sensitive to the importance of theorizing.

Consequently, we would argue that critical pragmatism offers the “best fit” for a strategic détente between the three main methodological paradigms necessitated by the growing state of crisis in today’s schools. In this respects it is important to remember that while epistemological paradigms may tend to favor certain methodologies they rarely overtly exclude particular methods (Johnson & Onwuegbuzie, 2004; Copper, 1998). The principle benefit of such a synthesis does not lie within a consolidation of methods or disciplines, but a productive search for anomalies or generative problematics (Koch, 1999).

Undoubtedly, then, it is necessary to be clear about a methodological paradigm’s epistemological presumptions. While no methodology is immune from bias or hegemonic appropriation, quite often, quantitative methods have been associated with dominant conservative discourses (McNarmara, 1979, p. 169; Greene, 2005, p. 207). This has certainly been the case since the implementation of the No Child Left Behind Act (Lather, 2004, p. 760; Horn, 2004, p. 196) which presents “legitimate” truth testing as being predominantly within the purview of quantitative methodologies (Greene, 2005, p. 209; Horn, 2004).

Unfortunately, calls for an examination of the “quality of evidence” often constitute thinly veiled attempts to further marginalize qualitative and critical forms of inquiry (St. Pierre, 2006, p. 254). While ostensibly an epistemic preference, such a move has far ranging implications for educational funding, policy development and administrative practice. Not surprisingly, “some researchers see a reliance on purely empirical research as a denial of the experience and institution of the practitioner and a further disempowerment of practitioners in educational decision making” (Horn, 2004, p. 198). Regrettably, such a move will likely “professionalize” educational research to an extent that minimizes the knowledge contributions of practitioners, such as Jane and her staff, and their ability to make contributions to educational research (Horn 2004, p. 198).

Often, such initiatives are also associated with the broader neoconservative agenda to “discipline” feminist and other “left” leaning discourses (Lather, 2004, p. 759). Although frequently touted as an innovation, evidence based practice in its contemporary manifestations primarily represents an attempt to replace accountability with a methodological fetishism (Lather, 2004, p. 763). As Lather notes, “while it may be true that no field of inquiry is unable to benefit from the methods of the natural sciences, it is quite another thing to hold up as the ‘gold standard’ a very narrow idea of scientific method” (Lather, 2005, p. 3; Riehl, 2006). Instead, practitioners and academics must recognize that “[b]oth pedagogical and educational research need to be empirical, interpretative and normative, and both can be objective in the sense of being public and rational forms of inquiry” (Soltis, 1984, p. 9).

The politicization of method is, then, in large part, a reflection of a lack of methodological consensus (McNarma, 1979, p. 171). While quantitative purists would argue that educational research should be methodologically rigorous, postmodern researchers contend that a methodological fetishization ignores the importance of education as a field of cultural struggle. All too often, this discourse of efficiency neglects to consider the influence of historical, cultural and material interests (St. Pierre, 2006, p. 241). Bad faith in educational research, consequently, involves the blind endorsement of methodology as a means of furthering disguised political aims.
(Gage, 1989). Such epistemic Puritanism is a dangerous, misguided stance which facilitates the misappropriation of educational research by myopic power brokers.

An epistemological and methodological confluence is necessary to develop an inclusive pedagogical praxis and an informed citizenry capable of effectively managing public educational institutions (Willinsky, 2005). Jane’s plight reminds us that truly transformative thinking and knowing is not bounded by an uncritical political or methodological allegiance. Rather, “for the pragmatist…knowing involves both rational and empirical thinking. It demands formal or informal experimentation and requires an attitude of tentativeness, coupled with a willingness to reexamine and revise” (Greene 1973, p. 128).

Ultimately, epistemological disputes, rooted in complex philosophical problems and compounded by academic infighting must defer to pragmatic educational considerations such as those that face our fictional principal and her teachers (Gage, 1989, p. 8; Howe, 1988; Baert, 2005; Mayer, 2003; Willis, 2003; Seidman, 1991, p. 188). As simplistic as this may sound, an awareness of the dangers of allowing methodological disputes to subsume the dialogue of educational research is both timely and necessary. We must recognize that “[e]stablishing boundaries and limiting discourses is itself a political act” and that “boundaries exist only if they are enforced and they are enforced by the exercise of power” (Cherryholmes, 1988, p. 449). Yet, teaching is itself situated within phenomenological, social and discursive spaces where autonomous agents interact within the broader constraints imposed by power and ideology (House, 1989, p. 12; Elliot, 2004, p. 146). Methodological issues of validity and credibility, therefore, highlight the degree to which quantitative and qualitative methodologies, are, at heart, concerned with the epistemological exigency of informing effective decision making. Thinking, we must remember, is a complex and “iterative” process which transcends methodological boundaries (Suddaby, 2006, p. 639). Although pragmatism may provide some guidance (Johnson & Onwuegbuzie, 2004) it cannot be a standard of evaluation without some consensus regarding educational aims.

Our example of a staff in conflict over a school’s discipline policy reveals how a methodological pragmatism must be supplemented by a search for shared values and a critically informed consensus which takes into account postmodernity’s fragmented and perennially uncertain nature. Clearly, disciplines use criteria of evaluation and selection to facilitate knowledge reproduction, and, undoubtedly, this process will always be inextricably linked with issues of power. However, as the work of Freire, Habermas and Dewey illustrate, equally certain is the fact that power can be used in democratic and reflexive ways. While it is unclear “whether the contrasting pictures…painted by fact positivists and sociological studies represent different perspectives on the same cathedral or pictures of different sides of the cathedral” only a more open and critical blend of methods can assist us in making such a determination (Nicholson, 1994, p. 743).

However, this is not to deny that evidentiary processes are processes of “fact construction” (Nicholson, 1994, p. 741). It is, instead, to suggest that within the field of educational research a critical practitioner centered conception of evidence would democratize epistemological processes by enhancing transparency and accountability. A critical pragmatism and a willingness to blend all three major research paradigms is necessary to effect a “justified consensus” within the divided and often inefficacious educational system (Habermas in Wood, 1985, p. 146; Baert, 2005). The alternative is elitism or a methodological balkanization which will paralyze educational reform and undermine efforts to effect a collaborative critical engagement. The question is: are we ready to strive individually and collectively to promote methodological diversity while remaining open to the world of political possibility and praxis? The answer, we suggest, is a wary but essentially optimistic yes, as we recognize the need to affirm our responsibility to act collaboratively in search of a pragmatic and reflexive research methodology which will benefit both the educational system, and, ultimately, the academic community itself.

REFERENCES


SUPERVISORY CLIMATE, MOTIVATIONAL INCENTIVES AND JOB COMMITMENT OF PUBLIC AND PRIVATE SENIOR SECONDARY SCHOOL SCIENCE TEACHERS IN OGUN STATE, NIGERIA

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Olabisi Onabanjo University

ABSTRACT

This study compared combined and relative influences of supervisory climate and motivational incentives on job commitment among science teachers in public and private Senior Secondary Schools in Ogun State, Nigeria. Three hundred and four (304) teachers randomly selected from forty Senior Secondary Schools in Egba and Ijebu divisions of Ogun state participated in the study. Three instruments were used to collect data. Supervisory climate and motivational incentives when taken together accounted for 6.7% of the total variance in job commitment (R Square = 0.067, p<0.05). This percentage is significant. Private school teachers have significantly greater motivation (t = -8.131, p<0.05) and commitment (t= -3.273, p<0.05) than their counterparts in the public schools. Government and public school administrators need to motivate their teachers by ensuring regular payment of salaries and allowances, providing opportunity for further training and providing necessary materials that can enhance teaching.

Keywords: Supervisory climate, motivational incentives, job commitment, public schools, private schools.

INTRODUCTION

In the school system, supervision is the collective responsibility of school head, teaching staff and even students. Supervision in school may even involve experts from outside the school system. Senior students are made to supervise the junior ones on assignment given by teachers. With regards to teacher supervision, much of this is done by the school principals, vice principals and heads of department. Teachers engage in a lot of activities in school, which require supervision to be thorough in order to achieve educational goals.

Areas where teachers can be supervised include writing of note of lesson, punctuality, and communication, teaching methodology, moral conduct and even dressing. Supervision is a helping relationship whereby the supervisor guides and assists the teachers to meet target. Akinwumiju and Olaniyan (1996) explained further that school supervisor is to help guide, stimulate and lead teachers in their educational activities and procedures.

Motivation refers to the strength of the inner drive to achieve professional goals. Motivation can also be defined as directing personnel toward organizational goals and serving a persons expectation and needs. Glatthorn (1994) identified several factors that influence teachers’ motivational level. One of these factors is supportive environment consisting of five features; positive relationship with students and parents, the presence of effective leadership, adequate physical condition, positive school climate and manageable teaching assignment. Another factor is feelings of having done a meaningful work. The teachers should have appropriate degree of autonomy and fulfillment in the course of carrying out their work.

Rewards are particularly important. In the United States, teachers are more motivated by such intrinsic rewards as the satisfaction of improving students learning than they are by extrinsic ones such as payment (Dilworth, 1991). However, a comparison of teachers in France and the United kingdom concluded that inter city French teachers are much less likely to perceive teaching as a means of giving meaning to life and are more likely to see it simply as a means of earning a living (Broadfoot & Osborn, 1987). In the United States, Kennedy (2006) reported that
private school compensation tends to be somewhat lower than that of public schools, though much depends on the school administrative style, financial resources and local economic situation.

Karakose and Kocabas (2006) reported that teachers in private schools have more stress performing their duties than their counterparts in public schools. Principal supervisory attitude and behavior positively affected teachers’ job satisfaction and motivation in private than in public schools. However, teachers from both public and private schools agree that they could achieve their goals easily and that they could look to the future with confidence in relations to their jobs. Novix (1989) observed that without inducement of financial compensation, it would be difficult to obtain any substantial productive effort from individuals. Ubeku (1987) asserted that employees can only be committed and satisfied with their work if they are highly remunerated.

For high level of employee commitment, Tarter (1989) argued that commitment is commonly a function of exchange in which the inducement offered by the organizational leadership is sufficient enough to promote prompt, not merely participation, but commitment to the organization. According to Shute (1989) commitment in this sense is not simply loyalty or compliance, but rather a wholehearted support of the organizational venture goals and values. Hassan and Orisola (2003) reported that self-motivation, tangible incentives and occupational commitment significantly predicted employees’ effectiveness. Olatoye and Oredein (2004) reported positive relationship between job motivation and commitment while Abiodun-Oyebanji (2004) reported no significant difference in supervisory climate of public and private school teachers.

It is therefore obvious that variables such as supervisory climate, motivation incentives and job commitment are very important in realization of goals of public and private schools. This study therefore compared combined and relative influences of supervisory climate and motivational incentives on job commitment of public and private senior secondary school science teachers in Ogun State.

**RESEARCH QUESTIONS**

The following research questions are answered in this study:

1. **Is there any significant difference between public and private school teachers’**
   a. Supervisory climate   b. Motivational incentives   c. Job commitment?

2. **What is the combined influence of supervisory climate and motivational incentives on job commitment?**

3. **What is the relative influence of supervisory climate on job commitment?**

4. **What is the relative influence of motivational incentives on job commitment?**

5. **What are the relationships among supervisory climate, motivational incentives and job commitment?**

6. **Is there any significant difference between male and female teachers assessment of**
   a. Supervisory climate   b. Motivational incentives   c. Job commitment?

**METHOD**

Research Design

This study adopted an *ex-post facto* research design. In such design, the independent variables have already occurred, the researcher cannot manipulate them.

Target Population and Sample

The target population for this study is all the science teachers in the Senior Secondary Schools in Ogun State. The State was first stratified into two namely Egba and Ijebu divisions. Randomly sampling technique was used to select twenty (20) secondary schools from each of the two divisions in the state in order to ensure each school
had equal chance of being selected. Science teachers from forty schools participated in the study. Science teachers are those teaching biology, chemistry and physics in the senior secondary schools. Nine science teachers were randomly selected from each school. Three hundred and sixty (360) science teachers fully participated in the study.

**Instrumentation**

Three questionnaires were designed and used to collect data. They are:

1. **Teachers’ Supervisory Climate Questionnaire (TSCQ)**
2. **Teachers’ Job Motivation Questionnaire (TJMQ)**
3. **Teachers’ Job Commitment Questionnaire (TJCQ)**

Teachers Supervisory Climate Questionnaire (TSCQ) a four-point Likert type scale. Respondents were asked to indicate their opinion about how their principals/vice principals/heads of department monitor or supervise teachers’ activities in the school. The respondents (teachers) were requested to indicate their bosses’(school heads) assessment of these activities by ticking a point on the scale for each activity. The scale has four points, they are ‘very frequently’ ‘frequently’ ‘sometimes’ and ‘never’.

Examples of items on **TSCQ** are

- Punctuality in the place of work
- Coverage of work assigned

TJMQ and TJCQ are also four point Likert-type scales. Teachers were asked to indicate their opinion by ticking any of ‘Strongly Agree’ ‘Agree’ ‘Disagree’ and ‘Strongly Disagree’ in front of each statement.

Examples of items on **TJMQ**

- Allowances are paid promptly
- There is no preferential treatment in promotion exercise

Examples of items on **TJCQ**

- I give too much time to my work
- I am well disposed to perform jobs outside my normal schedule

The TSCQ, TJMQ and TJCQ respectively have 21, 16 and 19 items. The instruments were given to experts for suggestions and comments before coming up with the final versions. The Cronbach alpha reliability co-efficients of TSCQ, TJMQ and TJCQ are 0.751, 0.789 and 0.722 respectively. The teachers were not asked to indicate their names on the questionnaire so as to make the responses anonymous.

**Data Analysis**

Data were analyzed using t-test (Research Questions 1 and 6), Regression Analysis (Research Questions 2 to 4) and Pearson Product-Moment Correlation (Research Question 5)

**RESULTS**

**Research Question 1**

Is there any significant difference between public and private school teachers’

a. Supervisory climate  
b. Motivational incentives  
c. Job commitment?
Table 1: Comparison of supervisory climate, motivational incentives and job commitment of public and private school teachers

<table>
<thead>
<tr>
<th>Variables</th>
<th>School type</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Std. Error</th>
<th>Df</th>
<th>t</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory climate</td>
<td>Public</td>
<td>196</td>
<td>36.763</td>
<td>4.807</td>
<td>0.349</td>
<td>346</td>
<td>1.693</td>
<td>0.092</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>164</td>
<td>35.899</td>
<td>4.588</td>
<td>0.373</td>
<td>346</td>
<td>-8.131</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Motivational incentives</td>
<td>Public</td>
<td>196</td>
<td>35.074</td>
<td>6.425</td>
<td>0.466</td>
<td>346</td>
<td>-3.273</td>
<td>0.001</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>164</td>
<td>40.177</td>
<td>5.022</td>
<td>0.400</td>
<td>346</td>
<td>-3.273</td>
<td>0.001</td>
<td>*</td>
</tr>
<tr>
<td>Job commitment</td>
<td>Public</td>
<td>196</td>
<td>55.121</td>
<td>7.129</td>
<td>0.517</td>
<td>346</td>
<td>-3.273</td>
<td>0.001</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>164</td>
<td>57.633</td>
<td>7.127</td>
<td>0.567</td>
<td>346</td>
<td>-3.273</td>
<td>0.001</td>
<td>*</td>
</tr>
</tbody>
</table>

NS = Not Significant (p>0.05), * Significant (p<0.05)

In table 1 above, there is no significant difference in supervisory climate between public and private school science teachers. However, private school science teachers have significantly greater motivational incentives and are more committed to job than their public school counterparts.

Research Question 2

What is the combined influence of supervisory climate and motivational incentives on job commitment?

Table 2: Combined influence of supervisory climate and motivational incentives on job commitment

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R^2</th>
<th>Adjusted R^2</th>
<th>Std. Error</th>
<th>F</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private and public</td>
<td>0.259</td>
<td>0.067</td>
<td>0.062</td>
<td>7.000</td>
<td>12.450</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Public only</td>
<td>0.384</td>
<td>0.147</td>
<td>0.147</td>
<td>0.138</td>
<td>6.617</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Private only</td>
<td>0.123</td>
<td>0.015</td>
<td>0.002</td>
<td>7.118</td>
<td>1.191</td>
<td>0.307</td>
<td>NS</td>
</tr>
</tbody>
</table>

NS = Not Significant (p>0.05), * Significant (p<0.05)

In table 2, supervisory climate and motivational incentives when taken together significantly accounted for 6.7% of the total variance in job commitment (R Square = 0.06, p<0.05). However, these two independent variables (supervisory climate and motivational incentives) did not predict job commitment among private school science teachers. Thus, supervisory climate and motivational incentives are better predictors of job commitment in public than in private schools. Other teacher factors not covered in the present study could account for remaining variance in teachers’ commitment.

Research Question 3

What is the relative influence of supervisory climate on job commitment?

Table 3: Supervisory climate as a predictor of job commitment

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R^2</th>
<th>Adjusted R^2</th>
<th>Std. Error</th>
<th>F</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private and public</td>
<td>0.243</td>
<td>0.059</td>
<td>0.056</td>
<td>7.021</td>
<td>21.636</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Public only</td>
<td>0.384</td>
<td>0.147</td>
<td>0.143</td>
<td>6.601</td>
<td>32.448</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Private only</td>
<td>0.115</td>
<td>0.013</td>
<td>0.007</td>
<td>7.103</td>
<td>2.083</td>
<td>0.151</td>
<td>NS</td>
</tr>
</tbody>
</table>

NS = Not Significant (p>0.05), * = Significant (p<0.05)

Supervisory climate alone accounted for 5.9% of the total variance in job commitment for both public and private schools (R^2 = 0.059, p<0.05). However, supervisory climate accounted for 14.7% and 1.3% of the total variance in job commitment among public and private schools science teachers respectively. Obviously, supervisory climate is a better predictor of job commitment among public than private schools science teachers.
Research Question 4
What is the relative influence of motivational incentives on job commitment?

<table>
<thead>
<tr>
<th>Table 4: Motivational incentives as a predictor of job commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Private and public</td>
</tr>
<tr>
<td>Public only</td>
</tr>
<tr>
<td>Private only</td>
</tr>
</tbody>
</table>

NS = Not Significant (p>0.05), * = Significant (p<0.05)

Motivational incentives as a variable is not a good predictor of job commitment unlike supervisory climate. Motivational incentives accounted for only 1.5% of the total variance in job commitment in public and private school teachers (R^2 = 0.015, p<0.05). However, motivational incentives accounted for very low, not significant 0.2% and 0.7% of the total variance in job commitment among public and private school science teachers respectively.

Research Question 5
What are the relationships among supervisory climate, motivational incentives and job commitment?

<table>
<thead>
<tr>
<th>Table 5: Relationships among the dependent and independent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Supervisory climate</td>
</tr>
<tr>
<td>Motivational incentives</td>
</tr>
<tr>
<td>Job commitment</td>
</tr>
</tbody>
</table>

* Significant (p<0.05)

There is positive significant relationship between supervisory climate and job commitment (r = +0.243, p<0.05), between motivational incentives and job commitment (r = +0.124, p<0.05) and also between supervisory climate and motivational incentives (r = +0.135).

Research Question 6
Is there any significant difference between male and female teachers' assessment of a. Supervisory climate b. Motivational incentives c. Job commitment?

<table>
<thead>
<tr>
<th>Table 6: Comparison of variables by teacher gender</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variables</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Supervisory climate</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Job motivation</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Job commitment</td>
</tr>
<tr>
<td>Female</td>
</tr>
</tbody>
</table>

NS = Not Significant (p>0.05)

There is no significant difference between supervisory climate, job commitment and job motivation of male and female science teachers. Both male and female teachers perceive the supervisory climate in their schools in a similar way. Also male and female teachers are equally motivated and also committed to their job.
DISCUSSION

There is no significant difference between public and private school teacher supervisory climate. There is however, significant difference in teachers’ motivational incentives and job commitment between public and private school teachers. Private schools teachers have higher motivational incentives and greater job commitment than public school teachers. Greater job commitment in private schools may be one of the reasons, why many parents in Nigeria prefer to enroll their children in private secondary schools. There is a general belief which has also been corroborated by research findings that private school teachers are more committed and efficient than public school teachers. For example, Akinwumiju and Olaniyan (1996) and Olabode (2002) reported that private school teachers are more committed than their counterparts in public schools. However, Abiodun-Oyebani (2004) found no significant difference in job performance of private and public school teachers.

In this study, combined influence of supervisory climate and motivational incentives has no significant impact on job commitment in private schools. This is not the case in public schools. It therefore means that public school administrators need to consider the issue of supervisory climate and motivational incentives very well in their efforts to improve job commitment. For private schools, it means that other factors outside supervisory climate and motivational incentives are better predictors of job commitment. In this study however, supervision, whether in private and public schools has significant positive relationship with job commitment. Supervision, according to Farombi (1999) involves the act of visiting schools or classrooms in order to assess the state of teaching and learning. This consists of making sure that teachers prepare their lesson notes, attend classes and staff meeting promptly and keep the record of what they ought to teach and hat they actually taught.

Motivation incentives also have significant positive relationship with job commitment for both public and private schools teachers. According to Novix (1989) without inducement of adequate financial compensation, it would be difficult to obtain substantial productive effort from individual. Ubeku (1987) stressed that good wages and salaries plays leading role in the search for high level of employee commitment.

There is no significant difference between male and female workers’ assessment of job supervisory climate, motivational incentives and job commitment. There is no reason to expect male and female assessment to be different except in environment or culture where there is serious gender discrimination. Olatoye and Oredein (2004) had earlier reported no significant difference between male and female teachers’ job satisfaction, motivation and performance.

CONCLUSION AND RECOMMENDATIONS

Supervisory climate and motivational incentives are important predictors of job commitment. Each of the independent variables also has significant positive relationship with job commitment. The impact of the independent variables on job commitment is greater for public more than private schools. Public schools administrators especially need to increase teacher motivational incentives as public school teachers have significantly less motivational incentives than their private schools counterparts. This probably is also the reason why job commitment among public school teachers is significantly lower than that of private schools. Government still needs to encourage teachers to repose public confidence in government-owned schools. There are many things that can be done to improve motivational incentives. These include regular payment of salary, opportunity for in-service training, promotion as at when due and provision of necessary materials relevant to the teaching profession.

REFERENCES

ONCE MORE FROM THE TOP: A REVIEW OF THE EMPIRICAL JUSTIFICATIONS FOR DATA AGGREGATION

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ABSTRACT

Multiple levels of investigation are important in organizational research in order to develop more integrative models of organizational behavior. The aggregation of data collected at one level of analysis to higher levels is an integral part of multiple level studies. While there are ample examples of multiple levels of investigation across the academy, there remains no unified source for making the basic decisions regarding aggregation. This study reviews the requirements and techniques for assessing the assumptions of aggregation and draws a parallel between construct validity and aggregation requirements. Data from 92 organizations and 4802 employees are used to provide an example. Univariate and multivariate methods for testing the appropriateness of data aggregation are compared and presented. A data analysis strategy for multilevel research is presented. The primary contribution of this article is to unify in a single source the set of procedures the researcher may follow in making analytical decisions regarding aggregation prior to evaluating more important theoretical concerns.

Keywords: data aggregation, multi-level investigations, intra-class correlations; within-group agreement

INTRODUCTION

In developing managerial paradigms for the 21st century, managers need to make decisions based on as much information as possible. It is incumbent on organizational researchers to pursue knowledge that will be useful for managing organizations. One way that organizational researchers can do this is through multiple organization, multiple level studies in which data collected at the individual (micro) level of analysis are aggregated to higher (macro) levels of analysis (e.g. the meso paradigm; House, Rousseau, & Thomas-Hunt, 1995). Research at the organizational level of analysis can lead to effective comparisons of organizations whereas group level analysis can lead to effective comparisons of groups. For example, Ostroff (1992) used aggregate measures of employee attitudes to predict school effectiveness. Similarly, George (1990) used aggregate measures of the affective tone of work groups to predict individual-level prosocial behavior and absenteeism.

Mowday and Sutton (1993) called for multi-level research to put organizations back into organizational behavior studies. Likewise, multi-level research is required to capture the work context in organizations (e.g., George, 1990), and help provide a paradigm for managerial actions and decisions. Scholars have responded to Mowday and Sutton’s (1993) call with a plethora of multi-level and cross level studies. Excellent examples of multiple or cross-level theoretical relationships may be found in organizational research with respect to person-organization fit Caldwell, Herold, & Fedor, 2004), organizational justice climate and orientation (Liao & Rupp, 2005), work-family conflict (Judge, Ilies, & Scott, 2006) and workplace attitudes and group member relations (Choi, 2006). On the one hand, the conclusion may be drawn that multiple-level organizational research has become imbedded within our scholarly culture. Outstanding tools for examining cross-level effects are now available (e.g., Hierarchical Linear Modeling, Bryck & Raudenbush, 1992). However, what is lacking is a basic primer for making initial determinations of the appropriateness of aggregation of data from one level of analysis to another.

Given this emphasis on multi-level research and advances in empirical methods, there is a need for a recapitulation of conceptual and empirical requirements for assessing the appropriateness of data aggregation. Ostroff (1993) addressed the empirical issues associated with comparing correlations across levels of analysis. Similarly, George and James (1993) identified important empirical issues related to cross-level research. However, before examining cross-level effects, specific criteria in the data must be met. While the literature is
replete with debates on this topic (e.g., Glick, 1985; Glick, 1988; James, Joyce & Slocum, 1988), much of it has focused on theoretical questions regarding organizational climate. Therefore, the present study focused on assisting in establishing the appropriateness of aggregating data collected at one level of analysis to another level of analysis, in the most general terms. The specific purposes of this study were to: (1) summarize the basic requirements for data aggregation; (2) review traditional methodology for evaluation of those requirements; (3) present both univariate and multivariate alternatives for testing the requirements of data aggregation; and (4) provide recommendations for a data analysis strategy.

REQUIREMENTS OF MULTIPLE-LEVEL RESEARCH

Theoretical requirements

The integration of micro- and macro-level research has become very important to the field of organization science and numerous authors have provided support for this integration (House, et al., 1995; Roberts, Hulin and Rousseau, 1978; Rousseau, 1985). Roberts et al., (1978) specifically argued that in order to examine aggregate data, theories which cross the levels of analysis in question must exist or be developed and empirical assumptions of aggregation must be addressed. Decisions must be made regarding the appropriate unit of theory (e.g., organization, department, group, or individual), as well as how variables may be operationalized at different levels of analysis (Blalock, 1982; Hannan, 1971; House, et al., 1995; Roberts, et al., 1978; Rousseau, 1985). Clarifying the appropriate unit of theory is not necessarily a simple task. The topic that will subsequently be used as an example is the concept of organizational climate (Glick, 1985; Glick, 1988; James et al., 1988).

Empirical requirements

Four empirical criteria for aggregation to higher levels of analysis (e.g., the organization) were set forth by Jones and James (1979): (1) low within-organization (aggregate) variance; (2) high across-organization (aggregate) variance; (3) homogeneity within the situation; and (4) meaningful relationships between the aggregate variables and other organizational, sub-unit, or individual level criteria.1

Conceptually, there are parallels between the evaluation of data for appropriateness of aggregation and the process of construct validity in psychological measurement (Glick, 1985; Glick, 1988; Seidler, 1974). In construct validity studies, we rely on multiple sets of evidence that lead to the conclusion that a measurement device does indeed represent the defined construct. We generally look at content analysis, item analysis and factor analysis results to assess the homogeneity of the items of interest. We empirically test the question: Do these items correlate highly with one another? Only after homogeneity is established are items composing the construct combined. Likewise, in studies of aggregation we test for whether the items in question have been answered similarly at the level we wish to aggregate. The question we ask is: Do the subjects within each aggregate (department, group, or organization) respond to the items similarly (Criterion 1: interrater reliability)? We then ask: To what extent can the aggregated units in question be reliably differentiated from one another (Criterion 2: reliability of the means). In construct validity, after assessing homogeneity of our measure, we construct a nomological network around that variable, proposing and testing its relationship to other variables. In aggregation studies, we assess whether or not our newly constructed aggregate variables relate meaningfully to other hypothesized variables.

Do all four of these criteria need to be met? Since methodological limitations exist, it is likely that more than one should be used (Jones & James, 1979; Joyce & Slocum, 1984). At minimum, prior to evaluating the fourth criterion, the first two criteria (low within-aggregate and high between-aggregate variance) should be examined.

Empirical methods

The focus of this study is on the first two criteria noted by Jones and James (1979). Several authors have addressed these criteria in a variety of ways (James, 1982; James, Demaree & Wolfe, 1984; 1993; Jones & James, 1979; Lord & Novick, 1968; Shrout & Fleiss, 1979). The most common methods relate to analysis of
Once More From The Top: A Review of the Empirical Justifications for Data Aggregation

variance (ANOVA) and the calculation of intra-class correlations (ICC). More recent methods employ variations of interrater agreement estimation methods (i.e., \( r_{wg} \); James, et al., 1984), and variations on ANOVA such as hierarchical linear modeling (HLM; Bryk & Raudenbush, 1993), and within- and between- analysis (WABA; Dansereau, Alutto, & Yammarino, 1984). WABA allows for an examination of within-aggregate variation and between-aggregate variation (WABA I) and the existence of covariance within- and between- aggregates (WABA II). HLM allows the researcher to examine both individual and higher level effects in hierarchical or nested fashion. Both HLM and WABA represent important empirical advances, however the primary contribution of these techniques is in the evaluation of cross-level and multiple-level effects. Basic ANOVA methodology will allow the investigator to evaluate the Jones and James (1979) criteria with respect to aggregating from one level of analysis to another theoretically driven level of analysis.

There are a number of ANOVA and ICC techniques applicable to the aggregation of data (Shrout & Fleiss, 1979). When the goal is to aggregate from the individual to the organizational level of analysis, the design is a random effects, one-way nested ANOVA design in which each of the K (K=1,...,K) organizations represent the classification and \( n_k \) individuals who provide information on the variable (X) are nested within the treatment (organization). If the researcher were interested in aggregating to the departmental level, the treatment would be the department and individuals would be nested within their respective department. The ANOVA provides a between-organization mean square (BMS) and a within organization mean square (WMS). The mean squares furnished by the ANOVA can then be used to calculate a variety of ICC coefficients to represent the extent of within- organization agreement and between-organization effects.

Two ICC coefficients are most relevant in this study. The first, often referred to as ICC(1) represents interrater reliability (italics added, James, 1982). The ICC(1) addresses Criterion 1 -- low within-aggregate variance, relative to between-aggregate variance and is calculated by the following formula:

\[
\text{ICC}(1) = \frac{\text{BMS} - \text{WMS}}{\text{BMS} + (k-1)\text{WMS}} \quad \text{(Eq. 1)}
\]

where (k) equals the number of raters. This method assumes homogeneity of variance, random selection of organizations, and an equal number of raters in each organization (Glick, 1985). Equation 1 assumes (k) to be equal over groups, however, if (k) is unequal, but not dramatically so, the ICC(1) may be estimated using the harmonic mean (see Jones & James, 1979 for a treatment of this issue).

ICC(1) estimates have some drawbacks that cannot be overcome. Because of the manner in which variance is partitioned, the residual term is equal to the inseparable effects of the rater, the rater by variable or target interaction, and random error. Thus, as James (1982) notes "without further information, we could not attribute a low ICC(1) to reliable and measurable differences among raters, to the experience of different organizational stimuli perhaps as a function of different positions in the organization, to interactions between reliable differences and positions, or to random variation due to such things as uncertainty and noise" (p.221-222).

A second criticism is the lack of a sufficient standard of what constitutes an ICC(1) value suggesting aggregation is appropriate. James (1982) reported that the range in many climate studies is from .00 to .50 with a median of .12 (with higher values representing greater homogeneity). Ostroff (1992) found ICC(1) values ranging from .10 to .26 in her study while George (1990) did not report ICC(1) values. Subsequently, Schneider, White and Paul (1998) made an argument for standards but no consistent agreement among scholars has evolved.

Likewise, the ICC(1) statistic can yield artificially low estimates of rater agreement (James et al., 1984). In particular, James et al., noted that it is affected by restriction of range. The ICC(1) statistic will be large (reflecting homogeneity) only when the BMS is substantially larger than WMS. It is "insensitive to degrees of agreement, that is, it treats agreement as an all or none phenomenon, with no room for partial or incomplete agreement" (Mitchell, 1979, p.377). (For an in-depth treatment of this criticism see James, et al., 1984).

Where restriction of range is present, it may be necessary to use a technique for assessing inter-rater agreement developed by James et al., \( r_{wg} \), 1984). The \( r_{wg} \) may be viewed in the following equation:
where $r_{wg}$ is the within-group (organization) interrater agreement for the subjects on a single item, $S^2_{xj}$ is the observed variance on the variable of interest, and $\sigma^2_{eu}$ is the expected variance on the variable of interest that would be expected if all judgements were due exclusively to random measurement error with no systematic bias. Expected variance on the variable of interest - $\sigma^2_{eu}$ may be calculated by the equation:

$$\sigma^2_{eu} = \frac{(A^2-1)}{12}; \text{ (Eq. 3)}$$

where $A$ = the number of alternatives in the response scale. James et al., (1984) have argued that $r_{wg}$ estimates of .70 or higher are necessary to demonstrate within organization consistency. Thus, the $r_{wg}$ coefficient addresses the first criterion relating to data aggregation, high within-aggregate agreement, or conversely, low within-aggregate variance, without taking into consideration between-aggregate variance. Similarly, James et al., (1984) provided an equation for the multi-item case:

$$r_{wg(j)} = \frac{J[1-(S^2_{xj}/\sigma^2_{eu})]}{[J[1-(S^2_{xj}/\sigma^2_{eu})]+(S^2_{xj}/\sigma^2_{eu})]}; \text{ (Eq. 4)}$$

where $J$=the number of items and $S^2_{xj}$ is the mean of the observed variances for the $J$ items and $\sigma^2_{eu}$ is the same as above.

The $r_{wg}$ has several requirements noted by James et al., (1984) and investigated by Schriesheim, Cogliser, and Neider (in press). Measures to which it is applied are expected to be of approximately equal interval, ordered, and discrete scale. Empirical evidence of the null distribution should be established (James et al., 1984, 1993; Schriesheim, et al., in press). Particularly, skewness of the underlying distribution may affect the resulting magnitude of the $r_{wg}$ coefficient. In addition, Schriesheim et al., found that the number of targets (or items) being rated affected the resulting coefficient. The $r_{wg}$ must be computed on each construct of interest, for each organization or aggregate unit. It can then be averaged to attain an estimate of the average within-group (aggregate) interrater agreement for each construct.

A second ICC coefficient that can be calculated is the ICC(2). This may also be recognized as the ICC(1,k) (Glick, 1985) and will be referred to here as the reliability of means (italics added, James, 1982). The reliability of means estimate [ICC(2)] addresses criterion 2 -- high between- aggregate variance relative to within-aggregate variance and answers the question: Can organizations (aggregates) be reliably differentiated on the variable of interest? It may be defined as the reliability of the mean X scores for k organizations. It is obtained by applying the Spearman-Brown prophecy formula to the ICC(1) coefficient (James, 1982) or may be seen in the following formula:

$$\text{ICC(2)} = \frac{BMS-WMS}{BMS}; \text{ (Eq. 5)}$$

This equation makes the same assumptions as Equation 1. Simply put, ICC(2) reflects how accurate the scores are in representing each organization’s mean. Alternatively, it is the lower bound estimate of the mean rater reliability on the aggregate variable (Glick, 1985).

The ICC(2) faces criticisms similar to those of the ICC(1) with regard to its assumptions and appropriate size of estimates. James (1982) noted that if the F-value in the ANOVA is significant, the ICC(2) may also be interpreted as reflecting that K organizations can reliably be differentiated on the climate variable X. It has been noted elsewhere (Glick, 1985; Shrout & Fleiss, 1979) that statistical significance is an inadequate threshold for evaluating the ICC(2). Glick noted values of the ICC(2) ought to be at least above .60. The ICC(2) has a direct relationship to the number of people in the sample (James, 1982). Thus, ICC(2) can be large when the sample is large, even in the event that the ICC(1) is small. However, the relationship of the ICC(2) to the number of organizations is not altogether different from the relationship of the number of items in a scale and traditional internal consistency estimates (Glick, 1985). This scenario raises potential problems for the researcher when there is low agreement within-aggregate (a low interrater reliability estimate), but high between-aggregate variance (a high reliability of the means estimate). The best strategy in light of this scenario would be to examine the data for range restriction and utilize the $r_{wg}$ suggested by James et al., (1984) to evaluate interrater reliability.
Subsequently, the reliability of the means estimate should be calculated to evaluate the second criterion — high between-organization variance.

Another criticism of the ANOVA technique for assessing the variance between- and within-organizations is that it is typically calculated on the summed scale of the construct in question. Thus, information associated with individual items is lost when the scale is created. In the organizational climate example, Schneider (1975) suggested that when the research is oriented toward understanding organizational climate, only items on which organizational members have high agreement (low within-organization variance) should be retained. Analysis of only summed scale values might hide potentially problematic items. An alternative to using the traditional ANOVA method is to use multivariate analysis of variance (MANOVA). With MANOVA, each proposed item of a scale can be entered into the MANOVA model, still nested within organizations. The results provide an assessment of the variance of each item within- and between-organizations, as well as an omnibus F-test of the overall MANOVA model that controls for experimental error. A MANOVA will allow the researcher to see which items may be potentially less apt to aggregation, while controlling for multiple comparisons across items and organizations.

In summary, empirical criteria presented by Jones and James (1979) for evaluating the appropriateness of aggregation have been outlined and examined. The researcher should first examine the reliability of means at the item level with the MANOVA technique outlined in this study. Second, compute the ANOVA-based interrater reliability to evaluate Criterion 1. If restriction of range is present, the \( r_{wg} \) will allow the researcher further guidance in evaluating the first criterion. Finally, an evaluation of Criterion 2 may be carried out through the examination of reliability of means estimates. In order to further illuminate this strategy, an example from organizational climate research is provided below.

**Aggregation example**

Organizational climate refers to the discovery of how the organization becomes psychologically meaningful to the individual member (Payne & Pugh, 1976). Climate seems to function at a number of levels -- organization, division, department, group and individual (Jones & James, 1979; Schneider, 1975). Climate perceptions are formed at the individual level, where organizational climate is referred to as the psychological climate (James, 1982; Schneider, 1975). However, James (1982) argued that aggregate individual perceptions of climate, when appropriately assessed via empirical methods can represent powerful methods for analyzing organizational behavior. It is an individual perception that should be widely shared (italics added) among organizational members subjected to the same policies, policies and procedures and can be aggregated to other levels of analysis (e.g., department or group) (Schneider, 1975; Kopelman, Brief, & Guzzu, 1990). Thus, organizational climate represents a concept measured at the individual level via multiple dimensions, that is widely shared and conceptualized to exist at higher levels of analysis (e.g., the organizational level).

Kopelman, et al., (1990) suggested five core dimensions of organizational climate seem to operate across organizations and have been commonly utilized in climate research: "(1) *goal emphasis* - the extent to which management makes known the types of outcomes and standards that employees are expected to accomplish; (2) *means emphasis* - the extent to which management makes known the methods and procedures that employees are expected to use in performing their jobs; (3) *reward orientation* - the extent to which various organizational rewards are perceived to be allocated on the basis of job performance; (4) *task support* - the extent to which employees perceive that they are being supplied with the materials, equipment, services and resources necessary to perform their jobs; (5) *socio-emotional support* - the extent to which employees perceive that their personal welfare is protected by a kind, considerate and generally humane management" (p. 296; italics added). In this study, task support was measured with a focus on the extent to which employees perceived they receive adequate training to complete their tasks.
METHOD

Sample
The database for this study includes 4,802 home office employees representing 92 life and health insurance organizations located within the United States and Canada.

Measures

- **Task Support.** This dimension of climate was measured with 4 items (α=.89).
- **Goal Emphasis.** This dimension of climate was measured with 4 items (α=.74).
- **Means Emphasis.** This dimension of climate was measured with 4 items (α=.67).
- **Socio-Emotional Support.** This dimension of climate was measured with 4 items (α=.87).
- **Reward Orientation.** Rewards Emphasis was measured with 3 items (α=.78).

Items composing these scales are presented in the appendix. All items had a four point Likert-type response, where 1=strongly agree; 4=strongly disagree. Items were re-coded so that 4=strongly agree; 1=strongly disagree.

The method for computing ICC coefficients consisted of a two-step procedure. First, the items composing each of the five climate scales were subjected to a multivariate analysis of variance (MANOVA). Second, ANOVA was conducted on each of the five scales in the fashion described above. Thus, 5 MANOVA models and 5 ANOVA models were computed. The MANOVA models were computed on individual items in order to assess the item-level variation within and across organizations. The ANOVA models and \( r_{wg} \) coefficients were calculated on the summed scales. The ANOVA results were used to calculate ICC statistics. MANOVA provided an omnibus F-test (Wilk's Lambda) as well as F-tests of significance for individual items.

In this sample, the number of individuals in each organization ranged from 30 to 120. It was judged that this wide variation was such that substitution of the harmonic mean was inappropriate. Therefore, 30 individuals were randomly selected from each organization for the computation of the ICC coefficients. The \( r_{wg} \) coefficients were calculated using the entire sample.

RESULTS

The MANOVA results in Table 1 suggest that items composing each scale reflect more variance across organizations than within each organization. The univariate statistics for each item were significant, as were the omnibus F-tests in the MANOVA. Thus, it was determined that all items included in the study could be aggregated to the organizational level of analysis.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Wilk's Lambda</th>
<th>F-Value</th>
<th>Ndf/Ddf</th>
<th>PROB &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task emphasis</td>
<td>.699</td>
<td>2.245</td>
<td>637/27283</td>
<td>.0001</td>
</tr>
<tr>
<td>Goal emphasis</td>
<td>.793</td>
<td>2.733</td>
<td>364/16671</td>
<td>.0001</td>
</tr>
<tr>
<td>Reward orientation</td>
<td>.811</td>
<td>3.503</td>
<td>273/13254</td>
<td>.0001</td>
</tr>
<tr>
<td>Means emphasis</td>
<td>.845</td>
<td>2.09</td>
<td>364/17806</td>
<td>.0001</td>
</tr>
<tr>
<td>Socio-emotional support</td>
<td>.864</td>
<td>1.422</td>
<td>455/21759</td>
<td>.0001</td>
</tr>
</tbody>
</table>

The results for the ANOVA and interrater reliability estimates are presented in Table 2. The ICC(1) estimates were calculated using Equation 1 and the ICC(2) estimates were calculated using Equation 5. The task support climate dimension had the largest ICC(1) statistic (.225) and means emphasis had the smallest (.030). In all, three of five constructs reflected ICC (1) statistics that were relatively low, suggesting low interrater reliability. The average \( r_{wg} \) coefficient was calculated using Equation 4 and the results for each construct are also presented in Table 2. It should be noted that this formula assumed a uniform, rectangular null distribution underlying the data. Average
The reliability of means estimates are also presented in Table 2. The F-value for each construct was significant, suggesting that the organizations could be reliably differentiated on the basis of these variables. In the case of every variable but one (means emphasis), the results suggested a reasonable degree of reliability at the organizational level (from .70 for reward orientation to .90 for task support).

**DISCUSSION**

The results of the ICC(1) computations suggested that the overall interrater reliability was quite low. In other words, there was not substantial agreement on the climate constructs among individuals within a given organization. However, an alternative interpretation would be that individuals within a given organization do not agree completely with one another (e.g., James, 1982; James et al., 1984). Thus, the ICC(1) results failed to support Criterion 1 -- low within-aggregate variation. In contrast, the rwg analysis suggested a good amount of within-aggregate agreement. In light of range restriction in the data, reliance on the rwg results provide fairly strong support for the first criterion for aggregation. The individuals within each organization did not agree "completely" but they did agree substantially with each other.

The results of the ICC(2) computations suggested rather convincingly that with exception to means emphasis, reliability at the organizational level was relatively high. That is, the organizational means were stable. Thus, the second criterion, high between-organization variance was met. Drawing from these two sets of results, the conclusion would be that the first two of the criteria put forth by Jones and James (1979) were reasonably met in the present study. There is a moderate to high degree of relative perceptual agreement among raters within the organization, and organizations can be reliably differentiated on the basis of these variables.

In summary, these results provide justification for investigation of organizational level effects relating to data aggregated from the individual level of analysis. Once aggregation is found to be appropriate, the aggregate level variables will be assigned values (the organizational mean) for each variable in the study. The grand mean becomes the average of organizational means, and the standard deviation becomes the deviation of each organizational mean from the grand mean (Ostroff, 1993). After testing the first two criteria for data aggregation, and evaluation of the extent of homogeneity within the situation, the remaining aggregation questions relate to the fourth criterion - do the aggregated variables correlate meaningfully with other organizational level variables. Once again the parallel with construct validity is drawn by considering the nomological network of variables of interest.

A multivariate approach using MANOVA was proposed as one method for holistic evaluation of the items composing a construct or scale. The use of MANOVA provides an alternative methodology which allows the assessment of variance within- and between-organizations at the item level. This has the advantage of allowing the investigator to eliminate items that may not reflect high agreement at levels other than the level in which the data was collected. This focuses on the importance of investigating individual items prior to examining scale level aggregation (Glick, 1985; Schneider, 1975). While this could result in the need to delete items from an established measure, it may be necessary in order to successfully change levels of analysis with a given construct.
ANOVA and ICC methodologies were examined and comparisons were drawn between the ICC(1) and the $r_{wg}$ (James et al., 1984). Several important conclusions may be drawn from this study. First, ANOVA based techniques represent an important evaluation of two out of the four criteria proposed by Jones and James (1979). The ICC(1) and the ICC(2) both provide unique and important information. It should be noted that the evaluation of Criterion 1 and Criterion 2 requires both the ICC(1) (or the $r_{wg}$) and the ICC(2) respectively (Shrout & Fleiss, 1979). Establishing intrarater reliability only tells the researcher that there are grounds for aggregating within the chosen aggregate level. Technically, to stop at intrarater reliability and begin with correlation at the aggregate level would be parallel to establishing construct validity prior to completing the reliability analysis. If we accept the criteria set forth by Jones and James (1979), reliability of the means must be evaluated and established prior to using statistical analyses across aggregates.

The $r_{wg}$ (James et al., 1984) was presented as an alternative to the ICC(1) in the presence of range restriction. The main drawback to the $r_{wg}$ is that it addresses only one of the four criteria proposed by Jones and James (1979) - within aggregate agreement. It does not address whether the aggregate units can be reliably differentiated from one another. Arguably, this is not of particular concern, since other criteria can be evaluated with subsequent analyses (e.g., ICC(2)).

The strategy presented is to first examine the reliability of means at the item level with the MANOVA technique outlined in this study. Second, compute the ANOVA- based intrarater reliability and reliability of the means statistics. Problems regarding a determination of just how large an ICC(1) coefficient should be were raised. The researcher should evaluate previous literature in the specific area of interest, and evaluate the size of the ICC(1) within the context of previous findings. If the intrarater reliability estimates are similar in size to previous research, and if restriction of range is not significant, then one can be fairly confident that the first criterion (low within-aggregate agreement) is met. If range restriction is present, the $r_{wg}$ will allow the researcher further guidance in evaluating the first criterion. Finally, if the reliability of means estimates are fairly large, the researcher can move ahead with evaluation of the remaining two aggregation criteria. This strategy would be appropriate not only for organizational climate research but also for other multilevel studies (For a similar approach refer to Ostroff, 1992).

This study extended the research of Schriesheim, et al., (in press) in three important ways. First, the Schriesheim, et al. study contained a relatively small sample of 48 individuals with as few as 2 individuals per unit. This study evaluated ANOVA-based aggregation statistics with over 2700 observations (30 per organization) and $r_{wg}$ estimates with 4800 observations. Second, this study illuminated circumstances in which ICC(1) and ICC(2) estimates conflict with one another regarding the question "should we aggregate this data?" Thus, the $r_{wg}$ estimate was particularly useful in the presence of range restriction. Finally, while the Schriesheim et al. study examined the $r_{wg}$ in comparison to WABA results, they did not present a comparison with the traditional techniques examined in this study.

The focus of this paper has been directed toward summarizing the most basic issues in data aggregation - assessing the appropriateness of aggregation from one level of analysis to another. The most commonly used empirical tools were evaluated. Other critical issues not addressed in this study refer to empirical evaluation and interpretation of cross-level effects. A number of authors address this topic (Bryk & Raudenbush, 1993; Dansereau, et al., 1984; George & James, 1993; Mossholder & Bedeian, 1983; Ostroff, 1993; Schriesheim, et al., in press).

It is extremely important to note the restrictions of the ANOVA and ICC techniques used in this study. In this study the wide variation in the number of raters per organization poses a particular limitation, since there were wide variations in the number of subjects in each organization. In order to calculate the ICCs, a substantial number of subjects were deleted from the analysis, thus important information may have been lost. While the data set in this study was large enough to allow some leeway in deleting observations, in many cases this approach might prove to be extremely limiting. It should be noted that many statistical packages (e.g., SAS-GLM) provide linear modeling procedures that will adjust for the unbalanced research design, which will overcome this limitation provided the data meet the other required assumptions. Technical procedures for calculating the ICC statistics using the harmonic mean may be seen in Jones and James (1979) and Guilford (1954).
This study has moved away from the debates (Glick, 1985; Glick, 1988; James et al., 1988) regarding which reliability estimate is most appropriate in evaluating data for aggregation. In contrast, criteria from Jones and James (1979) were used to develop a comprehensive data analysis strategy. The importance of estimating reliability within-aggregates (Criterion 1) and reliability between-aggregates (Criterion 2) was emphasized. The example provided an excellent opportunity to observe the importance of a comprehensive approach to data analysis in multilevel studies.

Aggregation studies provide opportunities to develop substantively fruitful research questions. Theoretical and empirical criteria must be evaluated within the context of the particular research topic, but the general guidelines presented here serve to guide the research process. There is a wide array of empirical tools available to evaluate the assumptions of data aggregation. Each has important drawbacks to be certain. However, when following a thoroughly developed conceptual framework, they may be used in combination with each other to increase the potential for well conducted aggregate research.

REFERENCES


APPENDIX

Listing of items included for task support, goal emphasis, reward orientation, means emphasis, and socioemotional support.

Task support
I received sufficient training to do my job.
Education and training is an integral part of this company’s culture.
I have had sufficient/adequate job-related training.
If I felt that I needed more job-related training, the company would provide it.

Goal emphasis
Company goals and objectives are clearly communicated to employees.
I understand how the work I do contributes to the company achieving its goals.
I am committed to the company’s goals.
Employees of this company work toward a common goal.

Reward orientation
Generally I feel this company rewards employees who make an extra effort.
There is a strong link between how well I perform my job and the likelihood of my receiving a raise in pay/salary.
There is a strong link between how well I perform my job and the likelihood of my receiving high performance appraisal ratings.

Means emphasis
I understand this company's lines of authority.
I understand the boundaries of my job.
I know what is expected of me on the job.
I understand how my job performance is measured.

Socioemotional support
Generally I feel this company cares about its employees - not just about profits and losses.
Generally I feel this company values employees who have worked here a long time.
Generally I feel this company values employee loyalty.
Generally I feel this company treats employees as an investment -- key to its future success.
BEYOND ENGAGEMENT: AN INNOVATIVE APPROACH TO FORMATION AND RETENTION

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ABSTRACT

This article presents a new view of retention methods and a discussion of Discovery Growth Groups and Professional Retreats as innovative methods for personnel development and promotion of retention for both new nursing faculty and staff nurses. The article uses examples to demonstrate the impact of initial experiences and learned behaviors on retention of both nurses and nursing faculty; it posits a connection between the educational process used in forming nurses and the later behavior and level of satisfaction with the profession which contribute to the alarming loss of personnel.

INTRODUCTION

“Did you ever have one thing that was at your center; was the very seed of your existence? Everybody has one unalterable truth at their core.” The Black Echo – Michael Connelly

Given the current challenges in healthcare management and leadership and the concomitant loss of nursing staff and failures of nursing education to adequately replace the numbers of nurses lost, it is postulated there is more to this crisis than mere numbers suggest. These losses may be an observable symptom of an underlying dysfunction. Consideration of this question is the focus of this article.

So profound is the difficulty with retaining staff nurses and educators, the field could vanish should we fail to recognize what is contributing to the loss and lack of replacement in all areas of this profession. In the July 2001, Nursing Workforce: Emerging Nurse Shortages Due to Multiple Factors, 40% of all RNs will be older than age 50 by the year 2010 (General Accounting Office, 2001). It is probable the nursing shortage cannot be solely assigned to “aging out” of the educator and nursing profession, although this certainly is a contributing factor.

While increasing age in the nursing population and in the preparation of nurses by an aging faculty exists, it must also be considered that the actual and perceived behaviors of professionals in academia and healthcare workplaces responsible for forming professionals as nursing students and employees may be supporting a lack of interest in the nursing profession. “In 2002 The National Registered Nurse Survey found too few young people are choosing careers in nursing, and the average age of registered nurses has increased substantially. In 1980, 52.9 percent of RNs were younger than age 40….but by 2000, less than 10 percent were under age 30” (US Department of Health and Human Services, 2002). And in a more recent report, federal projections show the nation's nursing shortage will intensify by one million new nurses by the year 2020 based on the National Center for Health Workforce Analysis (NCHWA) in the Bureau of Health Professions Models for Supply and Demand (US Department of Health and Human Services, 2006).

In addition, there are more applicants for nursing classes than the profession has faculty.

U.S. nursing schools turned away 15,944 qualified applicants to entry-level baccalaureate nursing programs in 2003 due to insufficient number of faculty, clinical sites, classroom space, clinical preceptors, and budget constraints….Almost two-thirds (64.8%) of the nursing schools responding to the 2003 survey pointed to faculty shortages as a reason for not accepting all qualified applicants into entry-level baccalaureate programs. (American Association of Colleges of Nursing, 2005)
As nursing programs struggle to develop sufficient numbers of nurses who want to be nurse educators or to remain long-term in the profession, nurse recruiters and hospital administrators face real problems of bringing in new staff and expending substantial time and money to orient them, only to have more than half leave citing job dissatisfaction. “Only 70 percent of nurses in 2000 report being satisfied in their current position. Thus, of the approximately 2.2 million RNs employed in nursing in 2000, an estimated 672,000 were dissatisfied with their work” (US Department of Health and Hospitals, 2006). The numbers are only slightly better for job satisfaction among seasoned nurses.

The issues of nursing faculty shortages, crises in nursing management in the workplace, and a nationwide nursing shortage is at least two-pronged and is more likely a dysfunction along a continuum rather than two discrete problems. This article posits a connection between the educational process in nursing and subsequent manager behavior and employee dissatisfaction with the profession which contribute to the alarming loss of personnel.

HOW WE LEARN TO BE NURSES

Over the course of eleven years, this author has researched the prevalence of horizontal and vertical violence in the nursing workplace. Interest in the topic began as a response to a personal experience of having been assaulted and mentally and emotionally abused at the hands of a faculty member while a student in a Women’s Health Nurse Practitioner program at a major university. Over this period, a large body of literature has been amassed about horizontal and vertical violence in the workplace where personnel become the object of bullying and intimidation at the hands of a faculty or nursing colleague (Martin, Gray, & Adam, 2007). The magnitude of the problem is demonstrated by the numbers of articles and authors working in this area of research (Marlin, Gray, & Adam, 2007; Namie, 2007; Gilmore & Hamlin, 2003).

Bullying in the workplace is rife. In a recent survey conducted by Zogby International through the Workplace Bullying Institute (Namie, 2007), 72% of bullies were found to be bosses targeting other women, with half suffering stress and 33% having stress symptoms for more than one year. Not only is the problem severe it is endemic, affecting 49% of American workers (Namie, 2007). While the violence is largely vertical (top down), there is a significant amount from peers (horizontal) (Fudge, 2006). Even when it is brought to the notice of others, the outcome for most is to get another job or transfer to another unit/department or hospital/facility (Leigh, 2003). This is a serious issue in hospitals and healthcare settings everywhere as the national statistics indicate (Gilmore & Hamlin, 2003).

Certainly, it is necessary to remove faculty and staff who are unable to learn the appropriate communication and behavioral actions that would serve to foster the growth and development of students and colleagues. The reverse is equally true. Experienced faculty and staff nurses have an obligation to protect patients and peers by weeding out students and co-workers/managers that cannot learn appropriate behaviors, are not safe, and do not have and will not learn compassionate interactions. Activities as simple as discussions with students and staff about being polite and using good manners; teaching team building and interpersonal support within the clinical setting; and most importantly, being with each other in ways that embody what we want others to become, are essential and productive.

Such formative teachings are a crucial aspect of appropriate nursing behavior because all of us are taught by modeling. It is the most profound learning ability we have. We learn by watching; we are shaped by those who teach us—not so much by their words as by their actions…by their humanity. We are shaped and formed by the way we are treated. “Who I am shapes those I teach.”

ABUSE IN THE GENERAL POPULATION

The national statistics from the US Department of Justice on abuse are overwhelming. Every 9 seconds in this country a woman is battered; every hour a woman dies, is murdered, in an assault. One in three females is sexually assaulted by age 50; one-half of all women will be sexually assaulted. The statistics are only slightly better for men. One-third of all males are sexually abused by 50 and one in four boys sexually assaulted by age
If we extend the problem to emotional and psychological abuse as well as neglect, we come to the horrific awareness that nearly three-quarters of us have been subjected to some form of abuse in our lifetimes (National Center for Injury Prevention and Control, 2003).

These data on sexual abuse are widely understood, as is the financial impact in the workplace for illness and lost work time for victims of domestic violence. What has not been studied, and is not now known, is what being the victim of any form of abuse in one’s personal life creates in the person who becomes a manager or supervisor. While we have significant data about the impact of all forms of abuse on the subsequent behaviors and life choices of an abuse victim, there is a dearth of research available on the impact of abuse on management style. And, consequently, a lack of information about the impact of abuse and connections to the conscious and unconscious expression of that abuse in the workplace behaviors of an abuse victim who becomes a victimizer, observer, or a victim again.

This problem compounds itself with the emerging national problem of cyber-bullying among young people which demonstrates the vastness of the human potential for doing serious harm by speech and action directed toward others. It is estimated in articles and research by the National Education Association Health Information Network that one-half of all American students have experienced cyber-bullying (NEA Health Information Network, 2005). This means the next generations of nurses come from a population which has been additionally abused in a contextual field characterized as being cold, distant and impersonal. Amanda Lenhart, Senior Research Specialist at Pew and author of the Pew Internet and American Life Project (2006), confirms through her survey that as many as 13 million teens are affected by cyber-bullying annually. She further demonstrates the conditions for this form of bullying are based in commonly understood social factors for face-to-face bullying, and that females are bullied 40% more often than males.

Current research from the University of Denver School of Nursing, presented by Dr. Diane Skiba, at the 2007 American Association of Colleges of Nursing Baccalaureate Education Conference (Nursing Education 2.0, presented November 30, 2007) underscores the true vastness of the problem. The current generation (yours and mine) is, to one degree or another, a stranger in a strange land when it comes to electronics and the cyber universe. However, “Generation Y” LIVES in this mode and is intrinsically different in educational expectations and in practical life experience. This is not a simple theoretical problem; it is a practice issue. Understanding the potential impact for abuse both in the physical and virtual world is fundamental to bringing about change in the formation of nurses by our academic programs and in practice arenas in our present and near future. Per Dr. Skiba, there is a danger for students in learning and working collaboratively through electronic means because this increases the lack of understanding of plagiarism and boundaries of individual work. While this is a legitimate concern, it could be suggested there is a true positive in this potential action. Our young students from this cyber-generation may also know, in ways we cannot yet understand, what “collaborative interconnections” may really mean.

In many ways, we may be returning to the fundamentals of understanding group process. Conversely, the more significant danger may also be the acquisition of skills which promote more emotional and interpersonal distance. Lacking face to face contact, the depersonalization of the media itself may end up contributing another basis for abuse within academia and the professional nursing environment.

**SUMMATIVE v FORMATIVE LEARNING**

There is an educational dialectic in the nursing education process designed to impact and deal with the issues surrounding how we approach others. In academe, the current discussion concerns grades and clinical instruction. Essentially, the struggle centers around how to ensure a student is “safe,” while assigning grades and evaluating clinical performance, thus forming the student into an effective clinician. All the while the dispenser of grades is likely to be seen as a person feared for the possible grade to be dispensed.

A variety of approaches to grading the clinical performance are used in schools across the country. Much contemporary research seems to demonstrate that focus on the *formative approach* rather than the summative
grade produces a different learning experience and a more highly functioning student/clinician across all levels of education (Huckabay, 1979). That is, forming students by taking them from those with a total lack of experience to safely functioning students who understand what and why activities are performed appears to produce higher-functioning students than a system devoted entirely to assigning a letter or numerical grade by an instructor focused solely on those grades. Some combination of grading for concrete paperwork as part of the clinical experience and clinical performance that is not graded but rather confirms and demonstrates a student’s development from totally inexperienced to safely competent probably constitutes an appropriate norming system. While there is an interest in assigning a letter grade on paperwork, the greater focus must be on forming students as safe, understanding clinicians who are able to self-evaluate, develop in productive teams, and function with high levels of interpersonal awareness.

Formative evaluation requires continuous feedback on performance either in the clinic, classroom, or laboratory. Formative in addition to summative evaluations assist in identifying necessary performance levels and the need to improve, along with collaborative and individual suggestions for behavioral improvements for each student (Boston, 2002). It is expected faculty would self-evaluate while asking students to do so, and, perhaps with significant value, be able to receive interpersonal feedback from their students. This single ability would have far-reaching effects in the workplace. This academic methodology supports students in a process of self-evaluation and self-awareness while working with faculty who are consistently involved in the same process and modeling this process in their demeanor and teaching style.

The manner and methods used to form students shapes them into the nurses, managers, and faculty they become. Learning to receive and give feedback is crucial to faculty and managers alike. It is a skill learned by students at the side of a teacher and carried forward as part of the population of nurses. While this is true for all professions, it has specific implications for the nursing profession where the decades-long metaphor, “nurses eat their own,” describes how students are normed and become nurses, managers, and new faculty who perpetuate the same learned metaphor.

The fear of loss of a job or failure in school or clinic compounds the problem of formative development of students, employees, and faculty. Recently, the director of the Behavioral Health unit in which LSU students are trained stated, “Your students are not afraid of you and it is making them different; they are learning faster and better!” (Eppling, Nurse Manager, Personal Communication, 2008). This observation supports the contention it is not possible to learn at the elbow of teacher, mentor, or supervisor when there is fear. It is fear of the newness and unknown which must be overcome in the process of adapting to a new task, environment, or learning situation. We cannot become competent when we are always afraid. In fact, we come to hate what we fear.

It may well be this fear/hate impacts our losses in the profession more than we really know. As educators and administrators, we seldom consider this factor and yet it is a certainty we are dealing with the victims of such assaults. Some employment systems act as if this is not a problem until considering the meaning of assaults in the lived experience of the employee and the sequelae that follow into the workplace. While it is appropriate to require therapy for employees under certain circumstances, participation in a professional growth group and the development of communication/management skills should be a requirement of employment as part of the orientation process across the board.

The Discovery approach utilizes developmental growth groups in most settings using depth interpersonal skill development, understanding of power and enactment of power, and learning to create based on the concepts of intersubjectivity, interconnectivity, and paradigm shifts in all systems. Based on internal agency research since 1993, demonstrating the efficacy of the group process designed and utilized in programs with personnel and patients, the concepts have been broadened to encompass work environments and employees successfully (Quinn, 2005).

One aspect of the group process is its use with mixed groups, including managers who are NOT the supervisors of other participants. The only way to ensure an organization-wide transition and transformation is for ALL personnel to participate in these on-going groups. Such growth groups are just as useful for collaborative efforts
and interpersonal skill development in the academic setting as in the professional nursing setting. In group clinical situations with students, growth groups spontaneously create themselves as part of the post-conference experience, allowing students to vent and defuse. The result is that students come to self-awareness as part of a clinical team. That self-awareness becomes a natural part of the learning process as student and ultimately as a professional, and, what we expect for our students and employees, we should participate in ourselves. In every context, there are ways to build these structures so all participants are free to speak their minds and practice skills without jeopardizing the workplace or themselves. Crucial to this growth process is a fundamental understanding of how groups work, shifts of power within the individual participants, and the ultimate creation of a new entity flowing from that knowledge.

T-GROUPS, DEVELOPMENTAL STAGES, AND WHAT WE REALLY KNOW

If we consider what we know from developmental psychology and apply it to the education and organizational structures present by which we recruit and retain anyone in a nursing capacity, the difficulties become very obvious. Many programs of mentoring, on-boarding, and orientation are created and managed in such a way that participants are frequently functioning at the level of Trust v. Mistrust (Erickson’s Infant stage) or Autonomy v. Shame and Doubt (the Toddler stage) rather than the level of Intimacy v. Isolation typical of young adults. Frequently, working in initial transformation processes in an organization is tantamount to having a flashback to kindergarten and what we all learned about power/powerlessness between superior and subordinate in that setting. The process of establishing healthy functioning within any organization requires the individual to adapt to the milieu while finding a means of self-expression and competence in the tasks for which one is there.

During WWII, Kurt Lewin worked in the beginnings of group process developing what was known in its formative stages as the T-Group or Training Group. In the process of developing these experimental groups, it was discovered (because Lewin was not afraid to experiment with the accepted view of scientific observation) that not only did the participants in the T-groups like full participation but they requested, insisted, demanded, and received the opportunity to challenge the observers’ views of their participation. In other words, the experimental subjects challenged the scientific observers, giving feedback and observations about participants’ own actions as well as the observer’s observations (Lippett, 1949). This beginning work subsequently impacted views about paradigm shifts and change; how groups work; for what purpose they should exist; how they ethically function; what happens to power and structures of power within groups; and how groups impact an organization. It is equally interesting that these original experimental groups persisted for days and even weeks in the collaborative process for understanding how groups form and what makes them effective and cohesive. This means they were not “time bound” but were open-ended and continued as they served an on-going function. Clearly, the need for feedback within a developmental interconnection is crucial in the process of group development (Sandler, 1973).

What we have learned in the long history of Group Process in disciplines and settings other than nursing needs to be included in the developmental process necessary for retention strategies.

Groups that have fun together — who enjoy each other’s company and can share good times — have the emotional capital not just to excel in good times, but to get through the hard times as well. Groups who do not share this emotional bond are more likely to become paralyzed or dysfunctional or disintegrate under pressure. (Goleman, 2006)

Frequently our efforts at orienting and on-boarding lack the depth to transform not only the individual participants but the entire organization. For example, “engaging” is the new buzzword; Boyer (1990) states we are, “...making connections across the disciplines, placing the specialties in a larger context, illuminating data in a revealing way, often educating non-specialists, too.” But engaging is not enough.

We must learn to open self sufficiently to accomplish interconnections or interior connections. This requires a willingness not just to engage, but to share one’s being and interior self with others. To KNOW the other is the basis for education, learning, and working relationships. This form of understanding minimizes fear and eliminates hate/anger, giving colleagues the opportunity to collaboratively support each other to accomplish tasks, resulting
in moving projects forward and keeping each other safe, while supporting understanding on a personal and professional level.

Collaborative interconnections are often not well understood, although connections in group process have been fundamental to research into what constitutes beneficial, effective groups. Discovery Growth Groups for personnel development implemented in the last two decades are designed to facilitate change based on these depth interconnections. The concept is simple: a) What is interior to the self is manifested, constantly and generally unremittingly, externally to the self and, b) the structure of all relationships is a dance of power. Thus, everything a person is expresses itself externally, either consciously or unconsciously, for good or ill and the expression always impacts others. The more awareness we have about self and the functioning of power in interconnections and how to adequately build these interconnections, the more effectively and efficiently the workplace or faculty environment functions.

These interconnections are the woven threads of the life we share together in our work. It is the energy and willingness to share who and what we are that supports growth in ourselves, our colleagues, and ultimately our patients. The currents of energy flowing from us into our colleagues flow ultimately into patient care, having a ripple effect into the larger community and into the larger world. What is done in my corner of the world does NOT engage the larger world; it interconnects with that world. It is easy to forget it is not a one-way flow! While we are often open to this creative outward flow, there is simultaneously an opening to an inward flow. When self is open to make change in others, self-transformation also happens as a reverse flow occurs. This “interconnectional flow” can intimidate us and others if we do not understand it. For most of us, it is powerful to be the one sending the healing energy or taking the action toward another or directing an activity, but it is equally powerful being vulnerable and open to the flow from others. This is not a linear flow; it is circular. Power and structures of power shift within circular constructs. This is the basis for shared governance, collaborative decision-making, and depth change in an individual and an entire organization. If we do not incorporate these aspects into our methodology of orientation, education, and on-boarding processes, we may miss not just the point but the entire process when it comes to transforming, transitioning and retaining students, faculty and staff.

Discernment of and efforts to impact the difficulties in structures of power in part underlie such efforts as Magnet and other programs attempting to redesign hospital nursing communication and power structures so they are attractive to and supportive of nursing retention. Yet, often it appears systems embarking on these journeys do not fully address the underlying group process.

Perhaps as long as we think in hierarchical linear structures for our hospitals, schools, and mentoring programs, we miss the necessary shift in the paradigm already readily available in other disciplines and organizations. What may be required is an organization willing to experiment, teaching itself to let go of fear in its own self-determination while also letting go of the status quo. The resulting self-exploration and efforts bring us to a place in which every participant can become a self-actualizing individual who would then support the same process for others (faculty, staff, and students alike). Such an endeavor creates an environment accepting of diversity and becomes a place of meaning which embodies the most fundamental truths of its participants, such as Abraham Maslow anticipated in his seminal teachings on Self-Actualization.

**THE HIGH COST OF NOT MOVING INTO THE 21ST CENTURY**

Without a doubt, all efforts at mentoring, on-boarding, and orienting new staff, faculty, and students are laudable, but not enough. When we consider the cost of training one new employee, about $40,000-60,000 through a probationary period, or the cost of resignation of a multi-year employee, which is easily a million dollar loss or more, it becomes apparent we must do more. The economic and professional loss of nurse educators is just as devastating. Without this population continuing to expand, we face shortfalls in every aspect of nursing. As a profession, we cannot afford the monetary or knowledge base loss that occurs with a faculty loss of this magnitude.
When we view these losses in faculty, it becomes apparent we must be more creative in meeting the needs of persons in academia both financially and in flexibility of time; we must challenge ourselves to think differently about what is most nourishing to the depth growth so that faculty want to remain where they are needed and contributing. The Discovery Growth Groups, which allow for the uncovering of the depth of Self, provide training and developmental understanding not just for the possibility of self-discovery but for self-creation flowing from that discovery; this is a paradigm shift with broad-reaching consequences.

Each individual embodies specific gifts and a profound life purpose; most leave work situations where these gifts and purposes are stifled or repressed or simply not recognized. Thus, retention is a fundamental process of self-discovery and self-creation that is as compelling an imperative as any drive in the human being across a developmental lifetime. In simpler terms, the developmental drive which impels the baby to crawl and explore, moving through developmental stages across a lifetime, is precisely the same drive used in nourishing the adult professional in self-creation. It is the fulfillment of this imperative which allows a person at the end of the developmental life to self-evaluate and determine the generative value of the life spent.

The single unalterable truth…the mystery…what we discover…is ourselves, everywhere, in all relationships. Work flows from these interconnections in the most valuable creative environments. The most creative environments are great wellsprings, nourishing the depth of all participants. We often spend more time in the workplace than in our marriages and with our families. And it is here we should be seeking to answer life’s profound questions: Who am I? Where am I going? And what is the meaning of my existence?

As a faculty member and shaper of student nurses, this information raises the following questions for this author: How do we envision a work setting where this form of relating is not present; where faculty does not interconnect with students or staff? What are we modeling for our students? What are we forming as a way of interacting with others if we cannot demonstrate deep interconnectedness in these professional settings? The questions certainly should be considered for self and organizational exploration, program development, academic content, and ultimately, for further study.

Healthcare and nursing academia require a fundamental shift in how we view the work environment and our true purposes in it. If we are not exploring self and seeking the single unalterable core truth about ourselves and each other; if we cannot see the woven fabric of that search together in a combined, collaborative effort, then we have missed the answer to the question regarding what retention is about for anyone.

Why any staff or faculty stays, devotes the currency of their lives to any project, to any place, to any people is the normative question. If the answer is not because the Self expresses what is deepest and best in this context and with others in a mutually supportive process; if the answer is not about building what is most valuable in the Self for the good of the whole, then why any of us stays is a mystery!

REFERENCES


Fudge, L. (2006). Why, when we are deemed to be carers, are we so mean to our colleagues? Canadian Operating Room Nursing Journal; 12.


THE IMPACT OF COMMUNICATION IN REAL ESTATE SERVICES (RES) THROUGH THE INTERNET: THE USA EXEMPLAR

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ABSTRACT
It is commonly accepted that the Internet and technology have changed the way business is conducted today. But, how, exactly? The rapid penetration of the Internet into households, businesses and all spheres of economic activity continue. The number of hosts on the internet has risen to approximately 80 million, and real estate practitioners have eliminated the multiple listing books that were so widely used in the 1980 to using the Internet for approximately 90 percent of informational research. To state that the World-Wide Web (www) has transformed the real estate business is an understatement; it has become the go-to-tool consumers use to find information about homes and Realtors.

This search will examine the impact of the Internet on the real estate industry, in particular; the characteristics of e-commerce that make it a new force in commercial real estate; and describe alternative strategies that real estate firms can use to meet the challenges and opportunities of the www.

PURPOSE STATEMENT
The purpose of this research was to determine the impact of the internet on the real estate market and the role that the internet has played on increase exposure and revenue to this market.

INTRODUCTION
A clear simple definition of “communication” is the exchanging of ideas and thoughts. Since some ideas and thoughts are based on feelings rather than facts, it is important to be able to separate the emotions and logic when communicating concepts pertaining to real estate and financing. As the world, through the age of internet, has become smaller, communication has become more complicated. How do these concepts relate to real estate?

People in general, are searching the internet to find their real estate needs, whether investing, buying family homes, or selecting their realtors. It is commonly accepted by the business world that the internet and technology have changed the way business is conducted. The rapid penetration of the internet into households, businesses, and all spheres of economic activity continues. In addition, the number of hosts on the internet has risen to approximately 80 million, an increase of nearly 100 percent over the last year. It is estimated that online real estate advertising hit the $2 billion mark in 2006 and is expected to top $3 billion by 2010, surpassing newspapers in advertising market share.

Worldwide, nearly 300 million people are estimated to be online. In the United States of America, the number of adults using the internet is approaching the 50 percent mark; and the number of corporations with some internet related purchase/sales is also over 50 percent. This new technology has mandated changes in the organizational structure of the firms. It has also changed the distribution network of businesses; redefined their competitive strategies and their costs of doing business; and ultimately, their bottom line.

Consumers use the worldwide web (WWW) as frequently for information and product research as for entertainment and education. While businesses still primarily use the web for marketing and information dissemination, they are also taking advantage of its features to enable collaboration among firms and for internal communication. As a 20 year veteran in the real estate industry and a member of the Multiple Listing Services
(MLS), the author is continuously searching the MLS internet website for information for clientele requests; and as a method of selecting Realtors in other locations for clients relocating.

**THE RISE OF REAL ESTATE SERVICES (RES)**

The flow of information in the real estate market is increasing quickly because of the creation of company websites, e-mail, cellular phones, personal digital assistants, online linkage to financial sources and other technological advances. The real estate brokerage industry is in the midst of this technology revolution. This new information technology is transforming established institutions and opening new venues, as many traditional brokerage activities can be delivered more quickly and with more efficiency. But, this new technology also brings forth the threat of competition from internet-based real estate companies. Real estate licensees are in the midst of this new technological resolution. How is this new technology affecting the incomes of real estate licensees?

Unlike newspapers, catalogues, radio or television, the new technology offers the user the opportunity to respond immediately to information provided. This capability has expanded the scope of advertisers and retailers in terms of the number of customers reached and the location of customers. In particular, the efficient marketing capability of the web, its low transaction costs, and the customers contact and support are important to real estate. Figure 1 shows the estimated number of businesses in the United States using the internet. Approximately 68 percent of the businesses are using the internet as marketing and publicity means of communication; and only 20 percent of the businesses are using the internet for sales.

![Figure 1: Number of Businesses in the United States Using the Internet in 2007](image)

Although by its very nature, real estate is bound to the local environment, community and economy, the internet has extended its geographic reach. Now, it is possible to research properties situated at the other end of the globe, and make contact with owners or other realtors whether the purpose is for relocation, sales, or investment.

The graphic capability of the web is another feature that real estate can exploit to great advantage particularly with the more recent advances that now include virtual tours of hotels, homes and conventional centers. An internal view of the property can prompt the user to want more information about the neighborhood, community or city. All of which is just a click away through the internet.

**Residential Real Estate Services and the Internet**

Buying a home is among the most important decisions most people make in a lifetime and certainly one of the most expensive purchases indeed. Home ownership virtually defines the American Dream, and it is roughly one tenth of US gross domestic product. The RES industry is huge business in America.

Given the importance of information to home buying and the cost savings and efficiencies afforded by the Internet, a marriage between the two was inevitable. The National Association of Realtors (NAR) estimates that in 2002, two-thirds of homebuyers with Internet access used the web to shop for their next home. In recent years a number of business have sought to tap the potential of the Internet to allow both homeowners and buyers to enter the real estate market easily and efficiently without the services of a broker. Many people believe they have greater flexibility and control over the sale of their homes, if they do it themselves and recognize that buying or selling a home is mostly a matter of common sense.
Real Estate and Mortgage Brokerage
Traditionally, brokerage firms worked together to increase the efficiency of the housing search through the local multiple listing service (MLS). By cooperating and sharing information through their MLS, brokers reduced the cost and raised the efficiency of the search. Since access to the MLS was available to market participants only through member brokers, the MLS gave members an informational monopoly. Now, with the availability of free market information on the Web, every potential buyer or seller can be just a click away from real estate information. This ideal translates to the internet expanding access to information on homes, and shortening the search process for buyers and renters, as well as the listing times for sellers or landlords.

The premium on rapid dissemination of quality information has made finance a very productive field of internet usage. The range of real estate related web sites includes online mortgage firms that pre-qualify customers very quickly for the maximum loan amounts for purchasing homes. Mortgage brokers are using the internet to email good faith documents and pre-HUD 1 closing information. Closing the loan is still a traditional transaction, but thousands of companies have started using the internet to “originate” their mortgages.

CONSUMERS AND THE INTERNET
The real estate and mortgage industries are busy using the internet to market their services to consumers. However, even in the United States (the most wired country in the world) most people still lack, or choose not to have, internet access. For most of those who have access, both at home and in the office, the internet has proven to be more of an addition to their lives—sometimes useful, sometimes entertaining, often frustrating—than a genuine transformation.

As shown in Figure 2, approximately ten percent of consumers continue to use the radio as an advertising medium. Over sixty-five percent of consumers are watching television and viewing the commercials for advertising information. Newspapers and magazines are still viewed as the principal medium for information on new products and general information. Over 60 percent of consumers are still reading and reviewing printed materials. The internet is used primarily as an informational tool by 30 percent of the United States consumers.

CONCLUSION
Just as the television did not replace the radio, the print has not been replaced by the internet, and the cell phone has not replaced the line phone. There will continue to be a need for a combination of all avenues of communication to meet the demands of peoples around the world. Real estate is connected to the development of our society in a very direct way and continues to be a major player in the decisions that shape the way we live in centuries to come. As an information-based service industry, all forms of communication will continue to be used to reach communities around the world, as well as locally.
BIBLIOGRAPHY

ORGANIZATIONAL LESSONS LEARNED FROM A TECHNOLOGY INNOVATION PROJECT

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ABSTRACT

This case study looks organizational learning for an urban high school project as an application of technology used to facilitate relationship building. The challenges presented suggest a more adaptive learning approach when applied to future organizations.

INTRODUCTION

The term organizational learning has been used in many ways. In this paper, the researcher reviews the experiences of an innovative web-based learning model to facilitate a transformation of an organization. This transformational change can be revolutionary or evolutionary. Transformations that are revolutionary in nature require simultaneous changes in several organizational parameters (Miller & Friesen, 1985; Tushman & Romanelli, 1985). This type of change implies that there are strong relationships among internal and external parameters. The difficulty with this approach is that these dependencies have to develop over time to provide satisfactory performance if the elements of satisfaction are defined to be efficiency and effectiveness. This requirement of interrelationships between attributes is complex.

A CHICAGO LEARNING NEIGHBORHOOD

As part of a Technology Innovation Grant funded by the United States Department of Education, a group of educators and consultants began the development of an electronic learning neighborhood. The original model as proposed in 1997, sought to develop a replicable model for expanding learning opportunities beyond traditional classrooms by creating a learning network using a Microsoft SharePoint Portal Server and community resources. The model included a professional development program for high school teachers and community-based instructors to engage them in using this technology infrastructure to promote active learning. A SharePoint Portal Server creates a platform for collaboration, personalization, and enterprise application integration functionality – as well as enterprise scalability and manageability. Supported by a school-neighborhood partnership, this learning network model invited the participation of parents and other members of the community as well as K-12 students and teachers, thereby providing technology equity to disadvantaged families and closing the digital divide.

Originally, this Chicago Neighborhood Learning Network (CNLN) was to be built as a prototype “network-centric” environment. File servers at the hub school sites would host an extranet that would deliver software objects to school and community sites. These objects would be capable of running on different network operating systems and hardware. Unfortunately, the proposed technology was not available when the grant was awarded because its manufacturers and developers, Dell and Oracle, had abandoned its development. In addition, the Chicago Public Schools Division of Learning Technologies, which served as the project’s technical manager, did not address the issue of hosting a web space for sharing of learning materials and resources.

DIFFERENT VIEWS ON INTRA-ORGANIZATIONAL RELATIONSHIPS

Let’s look at two theories that support an evolutionary approach to transformation as an alternative analysis of successful performance outcomes. As organizations mature and their processes become more technically

Organizational Lessons Learned from a Technology Innovation Project

complex, it is no longer possible for existing organizational processes or individuals to manage these projects alone. The use of technology and intra-organizational teams can be an opportunity to multi-task parallel activities, reducing delays and meeting future challenges. The vision expressed in the CNLN proposal was a simple one. At the broadest level, technology was seen as an educational tool, used to extend learning beyond the school classroom through the use of technology and to make learning through technology accessible to everyone in the community. In retrospect, the perspective that technology was the primary driver for project success seemed to prevent creative and effective solutions to the project challenges. In the first five years of the project, progress was stalled due to major issues involving the technology infrastructure and the development of the CNLN website. The proposed project goals depended on the technological development of hub sites in two pilot communities. With these hubs in place, CNLN would conduct outreach campaigns and train the community in the effective use of the CNLN network. The proposed technology was not available and it became clear that the original network-centric was not possible, the original goals lost their context but project management did not make appropriate adjustments. In the industrial age, the focus of most enterprises was on improving processes for competitive advantage. In today’s knowledge age, organizational improvement does not depend solely on processes—it depends also on innovation and agility. Nothing fixed can deliver agility; only people, using creativity, judgment and experience, can deliver agility. When scholars view how different organizations cooperate to create agility, there is increasing importance on how team trust affects membership performance. It was unfortunate that the original proposed technology was not available at the outset of the grant. However, it should not have deterred the progress. The element of proposed technology that was not supported by Dell and Oracle was to empower an extranet. This extranet was to be a controlled environment for community members external to Chicago Public School facilities. Restriction placed over access was contradictory to the goal of CNLN to widely share information and resources. A review of the literature discovers that there are a large variety of factors and mechanisms that contribute to the dynamics of trust in organizations, ranging from individual attributes of team members and leaders, characteristics of the work environment (e.g. task interdependence) and the organizational context (e.g. organizational climate). Although the literature seems to be differentiated, researchers across disciplines agree that trust is an interpersonal (i.e. dyadic) concept (Rousseau, 1998). Within the network tradition trust is explicitly conceptualized as an interpersonal relationship, which, in general, is embedded in complex configurations relations. Furthermore, network research on trust has also shown that it affects organizational performance and intra-organizational dynamics. The stakeholder schools and community-based sites agreed that an important requirement for the project was putting a structure in place for communication, coordination, and collaboration. However, many also stated that there was an absence of leadership, direction, and energy for CNLN in moving the grant goals forward.

**COMPARISON OF RATIONAL AND ORGANIZATIONAL ECOLOGY**

School-based management, local management or self-management is a feature of the school reform movement around the world. Caldwell and Spinks (1998) consider the building of systems of self-managing schools to be one of the three major “tracks” of change, the others being an unrelenting focus on learning outcomes and creation of a knowledge warehouse. Donald Schon built a theory on the idea of rapid technological changes causing radical organizational changes. Structural inertia tends to prevent organizations from changing at the same rate as the environmental force suggesting a change. Research has shown, however, that widespread pressures such as technology and turbulence increase the chance that an organization might begin (or retard) a transformation (Wischnevsky & Damanpour, 2006). In today’s turbulent economy, many organizations besides the school systems are searching for an organizational learning model. These very rational models used to develop solutions to previous environmental challenges appear to have been the single-loop answer to past dilemmas. In other words, the learning only occurs as a reaction to consequences of previous actions. The problem with the solution derived from this approach is that the system cannot discover what caused the problem in the first place. It also cannot establish an appropriate behavior for the circumstances that can be applied in a routine way. Yet another problem with a rational model of learning is that the organizations tend to model what other organizations that face the same set of environmental conditions are doing. CNLN purchased licenses to use a group networking utility at Johns Hopkins University (JHU). The CNLN website and the JHU utility had the potential to allow users to hold discussion forums, conduct chats, upload lesson plans and learning materials, and communicate easily with each other. The CNLN website and JHU utilities were seen as a valuable clearing house of resources and an electronic
learning community. However, this potential was never realized. This further forces task and technology changes that match the task environment or technology of an organization with similar internal structure. A model such as this does not consider the dynamics of its own environment.

An alternative framework would involve a knowledge theory that is adaptive and innovative. It would involve double-loop learning for behavior modification. It would also consider the organization as heterogenous. The organizational changes would therefore be subjective and based upon the culture of the organization groups involved in the change. Donald Schon built such a system learning theory where the system is capable of bringing about its own transformation (Schon, 1973). This self-organizing system is called an ecological organization. Organizational ecology theory is also referred as population ecology or punctuated equilibrium as the organizational evolution is slow and gradual but interrupted by abrupt changes in the environment. It was proposed by Steven Gould in 1972 as a model for evolutionary change because it can determine appropriate behavior (Hatch, 2006). This postmodern system questions its own assumptions and values and it becomes intelligent. As this process improves, the self-organizing organization defines its own identity and behavior.

### ADAPTIVE ORGANIZATIONAL LEARNING

As I consult with various organizations in the United States, I am drawn to develop tacit knowledge. This comprises intuitive and content-dependent knowledge theory that draws from adaptive approaches. It is similar to Michael Polanyi’s situational theory of learning. The approach involves forming strategic partnerships with various consultants, firms, and organizations. Knowledge databases can be developed from these temporary learning opportunities with a focus of the organizational processes that are involved in the change. Researchers have learned that organizations continuously employ tacit knowledge (Cook & Yanow, 1993). This kind of knowledge has competitive advantage because it is difficult for competitors to duplicate such carefully constructed relationships and behaviors. A researcher can apply this approach across both a horizontal, geographic periphery and a vertical, hierarchical periphery and develop local knowledge bases that can then translate to a central repository.

Organization learning theory for any business entity should take a similar approach. Knowledge building can extend by studying the construction of queries of the database. This will model the organizational processes involved in the change being explored. The relations generated by the inquiries about the database tables will develop relationship models. These relationships will have subject matter and best practice relevance for the growth of the consulting practice. These knowledge databases will continue to inform the organizational learning as the organization researches query construction to determine patterns of learning.

### A MODERN DEFINITION OF ORGANIZATIONAL LEARNING

This interactive model is an alternative to the rational cause and effect model. Instead of trying to analyze variances in goals and actual results, this approach navigates to the goal, adjusting the route (learning) as the organization travels to its destination. The development of knowledge with this model depends somewhat on the small size of an organization. Small size organizations are less resistant to change (Lao, Welsh, Stoica, 2003). Organizational learning is also concerned with organizational adaptation. This is modeled in the organizations ability to utilize externally generated knowledge. Rather than growing the staff, the organization will grow by extending the strategic relationships. The growth plan is rooted in the notion that knowledge is defined by the situation the organization finds itself in. The other power in this technology infused method of knowledge theory development is that it is learning with the assistance of technology tools. This difference suggests that the planned methodology will evolve into other technologies that will help shape the organization. The organization will construct technology solutions to support the growth initiative. The technology will in turn assist in shaping the organization. This is double-loop learning.
ADAPTIVE ORGANIZATIONAL LEARNING: SIMPLE OR COMPLEX?

This learning approach is complex as it has both exploitation and exploration components. The exploration component presents the most challenge since it involves continuously rethinking knowledge and redeploying resources. Organizational learning itself is complex. This is because cultures themselves have complex relationships with their environments. Employees are socialized by previous relationships of family, church organizations, professional societies, etc. Learning, therefore, becomes difficult as cultures find themselves in an environment foreign to previous behavior norms. If certain norms are engrained as a culture, this same culture finds it difficult to coordinate and collaborate with different cultures. The learned values and behavior norms maintained by the culture dictate choices and actions taken. The focus of learning is continually adjusted by the object of the consulting organization as well as the consultant partners interacting with the objects. The process ahead is characteristically very complex as all human-technology systems. While there is much that is still uncertain, it is evident that adaptive learning will create the means. The challenge is how to put the pieces together. The navigation of the journey can be facilitated with adaptive learning that embraces change and a healthy component of transformation and growth.

REFERENCES

WINNING THE KNOWLEDGE GAME- A SMARTER STRATEGY FOR BETTER E-LEARNING IN THE GULF REGION

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ABSTRACT

There are numerous discourses associated with knowledge management, but it is only in recent times that e-learning has been identified as a strategic resource that can be utilized in an increasing diversity of venues (workplace, culture, and entertainment) as well as traditional institutions of learning, education, and training. In this paper the researcher discusses the view prevailing in the educational society in the Gulf Region regarding the dissemination of knowledge. The paper tries to develop a model for e-learning quality improvement to overcome problems using tools and techniques from knowledge Management (KM).

Keywords: Knowledge Management, Quality Management, E-learning, Gulf Region

INTRODUCTION

Knowledge management is of growing interest in today's business and academic community. As the importance and effects on quality of KM are realized in e-learning, more and more educational institutions are implementing KM activities.

With such realization universities are viewing KM as a critical success factor in today's dynamic borderless society. However, the value of KM is difficult to pin-point and has led academics to manage it without actually measuring it, (DePaula, Fischer, and Ostwald, 2001).

Knowledge management is being lauded as an important new approach to the problems of competitiveness and innovation currently confronting organizations. The theoretical arguments for the development of KM rest on a presumed paradigm shift in the business environment, in which knowledge is increasingly central to organizational performance. The practical case for KM also convince many academics and practitioners that in order to avoid costly problems associated with 'reinventing the wheel', organizations need to find ways of learning across projects distanced by time and space, (Hodgins, 2003). Information and knowledge have become increasingly recognized as competitive differentiators. In the knowledge-based view, organizational knowledge such as operational routines, skills, or know-how are acknowledged as a crucial valuable organizational asset. In practice, academicians may be able to avoid the confusions, chaos, and puzzlement associated with not knowing, replacing them with infrastructures that support sustainable growth based on the creation of new knowledge-based educations, (Barker, 2005).

It is argued that standards will play a pivotal role in shaping the Internet-enabled future of teaching and learning. This assumption is based upon the observation that the emergence of standards typically coincides with the early phases of new marketplaces, generally signaling consensus concerning key aspects of a new industry and maturity in innovation. In this sense, knowledge is organic and cannot be completely rendered in a digital form, (Hildreth et.al, 2000).

The consistency of work and learning is taking place in the context of an ongoing digital revolution, a revolution that has enabled innovation and transformation in most settings associated with learning, education, training, and research, as well as their administrative and support services. Such convergence can be seen to take place in the delivery of services. One of the clearest examples of this in the Gulf Region is in the development of e-
government, where integrated services delivery has become paramount. The Government of Dubai in the UAE has already been spending millions of dollars on this effort.

In a similar way and in recent years, services within the educational and the training sectors have been heavily influenced by the trends toward integrated service delivery as well as by portalisation and personalization of information and services enabled through the Web. Moreover, the profoundly networked character of these new environments suggests that the frameworks for service delivery will need to become increasingly flexible in their design, (Mason, 2005).

E-learning education means that there are less social opportunities for people to engage in a face-to-face meeting. It may also involve social, cultural, and language differences. Because of time and space constraints, there is a loss of physical interaction and contextual cues between the lecturer and the students, and among the students themselves. These problems can result in a lack of trust, making students unwilling to share knowledge and collaborate with others in e-learning communities. This paper will argue that the most serious obstacle to e-learning education remains the constraints of time and space.

Recently, a wide range of business techniques, including performance management, quality assurance, and total quality management, have had a direct or an indirect impact on education, and KM is set to do the same. It is the aim of this paper to suggest that with quality designed e-learning we may avoid the skills and knowledge crises that are often associated with human activity systems that are subject to rapid ongoing changes and, exist now a days in the e-learning process in the Gulf Region.

THE BASIC NATURE OF KNOWLEDGE:

Knowledge in the context of KMS is perceived to constitute a new form of information not previously addressed in other systems such as MIS, DSS. Knowledge stems from data. Data serve as the essential nucleus, which when combined, yield meaningful information. Technology is an enabler in this equation.

Academicians should recognize that, information, knowledge and skills are probably three of the most important personal commodities that an individual can acquire. They are needed for example in order to sustain high quality of e-learning, and these variables are needed in order to become an efficient and an effective practitioner within the domain of education, (Kimble, et.al, 2000). There is therefore, an ever-growing need to check that the knowledge and skills are both appropriate to the jobs and tasks we have to perform. If we view learning broadly as the process of internalizing and converting information to knowledge, then these two perspectives seem to support the view that information is the raw material of knowledge, and that more information does not necessarily lead to an enhanced knowledge creation and sharing. Therefore, this requirement involves designing and building better tools to facilitate understanding and the speed with which tasks can be expected. It also creates an ever-growing need for on-demand training and learning opportunities, (Nottingham and Park, 1999).

Knowledge management is also used by educational institutions to encourage the creation and sharing of knowledge that, as claimed, results in improvements in productivity, innovation, competitiveness, and better relationships among employees in those institutions. This insight is very important for the designers of KMS for the following reasons: to simply deliver or push information to the users desktop may not be an effective KM strategy, due to the scarcity of the attention required for processing this information and converting it to knowledge, (Alavi and Leidner, 1999). Obviously, the quality of the information that we have influences the quality of the decisions that we make which in turn, influences the quality of solutions that we produce in a problem-solving activity.

To make information resources productive, they should be converted into actionable knowledge. Such a process introduces challenges relating to knowledge creation, capture, sharing, and maintenance. Therefore, KM benefits will only be realized by educational institutions that are not only technologically adaptable, but that make the long-term investment to align with cultural, managerial, and organizational elements for the KM.
Rowley (2000) argued that KM is concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organization’s objectives. The knowledge to be managed includes both explicit, documented knowledge, and a tacit, subjective one. Management entails all of those processes associated with the identification, sharing, and creation of knowledge. This requires systems for the creation and maintenance of knowledge repositories, and for the cultivation and facilitation of sharing knowledge and organizational learning. To Norris, et.al. (2003), organizations that succeed in KM are likely to view knowledge as an asset and to develop organizational norms and values, which support the creation, and sharing of knowledge. In brief, KM is the management of processes that govern the creation, dissemination, and utilization of knowledge by merging technologies, organizational structures, and people to create the most effective learning, problem solving, and decision-making atmosphere in an organization.

**CHALLENGES OF HIGH QUALITY E-LEARNING:**

In general, colleges and universities have been the sites of knowledge production, storage, dissemination, and authorization. The rapidly expanding use of technology in teaching and learning, and the transformed economic basis upon which universities are instituted, have caused universities to change and transform the ways in which knowledge is produced, stored, disseminated and authorized. The degree to which these changes are informed by strategic reasoning is proposed as an indicator of success, (Abdelhakim and Shirmohammad, 2005). Providing quality education has become a major concern for many educational institutions, specially colleges and universities. Driven by the need to compete in a more global market, many universities are turning to the adoption of new educational technologies to expand their markets and to improve the flexibility of their offerings. For example, the combination of the Internet and the Multimedia has lead to the creation of content-rich and easy-access applications that can be very beneficial to education, be it self-paced learning, distance learning, or group-based tele-learning, all possible in both synchronous (real-time) and asynchronous (offline) modes, (Pham, 2002).

Many universities and educational institute in the Gulf Region strive to adopt and expand the use of information technologies in their teachings and learning offerings and large number of them has gone for global education. Despite the fact that computer and telecommunication technologies have linked people together, space is still a major concern, and geography does matter in the new knowledge economy. People still want to come together. The issue of time is regarded as another major concern in e-learning. In the Arab culture, the face-to-face encounter is the ideal paradigm for the meeting of minds. In today’s environment where many activities, such as working and learning, become geographically and temporally distributed active presence or co-located interaction may be problematic. In order to solve the problems, technologies such as video conferencing, have been used to create virtual presence. However, communication and social interaction in an e-learning community can present a serious challenge to the existence of trust. Again, in the Gulf Region good relations among people in the community purge the process of distrust and break down personal and organizational barriers, (Lievertz, 2001).

The main challenges of universities and educational institute in the Gulf Region to expand and grow high quality e-learning are the language and the cultural barriers. The problem is exacerbated as globalization demands the harmonious development and coordination in multimedia, resources, case study and etc. among students, educational institutions and, society. With the existence of an open society in the Gulf Region, language is a possible communication problem in e-learning communities where people come from different countries that use different languages. Therefore the question here is how to guarantee the quality of this large scale education outlet? How can we coordinate all of these institutions with various attitudes and perceptions? The nature of quality education does not exist in these relationships, and thus doesn't have the capability for organizing all of these educational institutions. In the Gulf Region, the English language is not equally well understood, and data and solution alternatives exhibit strong variability among regions. As mentioned earlier, space and time constraints may result in the lack of trust, identity and commitment in the e-learning communities.

In the KM literature, there is strong evidence that a climate that fosters trust, care, and personal networks among employees is one of the most important conditions for high level of collaboration, knowledge creation, and knowledge sharing, (Nonaka, Von Krogh, and ichijo, 2000).
The reformation of teaching modes is based on changing the educational ideology; the e-learning will change from regionally and locally to universally and globally.

Many educational institutions get into e-learning because it is fashionable, but as a move further in to a society dominated by technology and communication, both academic staffs and students will increasingly use e-learning to minimize the costs of products and services, which is not the case in the Gulf Region. On the academic side, academicians should recognize that there are three potential sources of knowledge that a person can use to solve a particular problem. First, there is that person's own innate knowledge that is embedded within his/her cognitive structures, which represent that person's private knowledge. Second, there is the knowledge that is embedded in the Electronic Performance Support System "EPSS" facility that the student is using to help him/her to solve the problem in mind. Third, there is the global pool of shared knowledge that is available to the student as a result of various knowledge-sharing processes, (Barker, 2005). Two tools may be used to cope with complexity associated with complex collections of systems to support knowledge management (i.e. General Systems Theory (GST), and the Electronic Performance Support System (EPSS). However it is not the intent of the researcher to explain their effects in more details, which could be left for future research. Yet, both systems are used as tools to organize the collection of knowledge and skills that can be used to improve the 'on-the-job' performance of an individual, group or organization within some given task domain.

The researcher believes that competent academics are important. For example in the Gulf Region the transformation of a tutor between different universities and locations to support the student is a tangible defects within expert academicians; also, the absences of computer experts, conferencing facilities, and limitations in the local availability of market/business information is another issue.

THE PROPOSED MODEL FOR IMPROVING E-LEARNING QUALITY:

Education in the Gulf Region is subject to the same pressures of the marketplace. Profound changes in competition have made universities and higher education institutions think like business. The educational markets are becoming global as universities attempt to internationalize their curricula and offer high-quality programmes to students regardless of location. To Ubon and Kimble (2002), universities also have to adjust themselves and to develop strategies to respond rapidly to the changes in the technologies and the increasing demands of stakeholders. The transmission of information has led to a whole new section of commerce and industry. Once information is transferred, it is the ability to act on it that is referred to as knowledge, (Lim, Ahmed, and Zairi, 1999). This dynamic interrelationship is shown in Figure 1.

Figure 1: The Data, Information, Knowledge Relationship

![Diagram of Data, Information, Knowledge Relationship]

Measurement is a crucial part of any management systems, and there is a growing awareness that the traditional measurement systems need to be replaced by more sophisticated measurement systems. Therefore, implementing successful measurement programmes in educational environments is a particularly challenging problem. Measurement needs to be made part of the day-to-day management and self-management cultures of the organization. Goals and achievements should be made visible and understandable, and effectively and
efficiently communicated to all students and academic staff members. The method of analyzing e-learning is proposed within the following model, Figure 2.

Figure 2: The Suggested Model

In essence, there are four variables to look at:

- **The Student**: What are the known student problems and solutions? What are the common student enquiries and what was their awareness? What can we learn from our students for effective learning? Where are we from the e-learning process locally or even globally?

**Student Matrix:**

Student measurements have been suggested to include university/college progress, number of new students registered or accepted in each Semester. Managing knowledge as quality strategy views things differently. For example, the university/college is interested in measuring and capturing its effectiveness with other educational institutions in the area. Often, counter-productive measures are used during the analysis, e.g. number of withdrawal per semester. Therefore, these measures encourage management to contact students when their problems have been solved, otherwise this will create a highly dissatisfied student.

- **Management/Source**: What are the key skills needed to make the e-learning process a success? Where is the location of these skills? How are these skills transferred and shared among student/academic staff?

**Management/Source Matrix:**

This matrix involves all the employees involved in the e-learning process. These educational institutions should regard knowledge as an integral part of their academic assets, give those employees a process to create new knowledge and hence have been use quality programme as a part of the academic staff's knowledge programme. In this respect university/college may develop a structure in the form of quality initiatives which have been recognized in the Western environment, but this is relatively new in other Arab cultures.

- **The Educational Institution**: (i.e. universities and colleges). How are our educational system links? Does the educational institution obtain an optimum quality, and support from the Higher Ministry? Does the existed university/college conduct quality programme?

**University/College Matrix:**

Such working environment have come into the light recently and been acknowledge as being an integral part of the success of an organization, or e-learning process. For example, curricula can be passed on to students or the academic staffs to allow for more informed comments and for university's management decision to be made.

- **The Technology**: How many computer terminals are available per student or the academic staff? Are these links being used effectively within universities/colleges locally or globally? The model forces all parties to think about the links between the working functions of a university /college management. It also put the
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technological capacity in its proper place, in other words, it is an enabler to organize and disseminate information. An example of this link is the use of computer by some universities in the Gulf Region who allow contact between local and foreign university departments of these institutions to track their specific educational programme or text on line anytime.

Technology Matrix:
The matrix defines the type of system a university/college needs to adopt in order to improve their management knowledge, and how the universities and the educational institutions strive to adopt and to expand the use of information technologies in their teaching offerings, and the objections to this on the grounds that globalization of education will have many problems since it may not be possible to guarantee the quality of a large scale, unlimited education.

Combining the model and the four steps that will allow for KM to become an integral part of the Educational institution's quality strategy(i.e. capturing knowledge, sharing knowledge, measuring the effects, and learning and Development), we obtain the matrix in Figure 3.

Figure 3: Matrix Structure

<table>
<thead>
<tr>
<th>Capturing/Storing</th>
<th>Sharing</th>
<th>Measuring</th>
<th>Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td></td>
<td></td>
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<tr>
<td>Management/Source</td>
<td></td>
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<tr>
<td>University/College</td>
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<tr>
<td>Technology</td>
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<td></td>
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</tr>
</tbody>
</table>

This matrix forces the academic staff to consider all logistical assets (soft or hard) with the management to link KM to the overall management's policy and strategy concerning e-learning. The measures suggested may be debatable, but listed as a catalyst for management to think of measures which suit their university/college environment.

- Capturing/Storing: Involves finding and developing an appropriate breakdown for the diverse forms of information contained and used by different actors within an organization from external sources(competitive universities), structured internal sources(students profiles) and unstructured internal sources(lessons learned).

- Sharing: The use of the available communication network formally or informally between the concerning groups in the university/college. Obviously, it is impossible to capture all of the knowledge of any individual, but continuous meetings between the academic staffs may be designed to minimize the loss of useful knowledge through staff turnover and simplifying the learning curve of new staff. Halal (2003) argued that for effective knowledge sharing, individuals need to have the same meaning in their communication process, and need to convert it to shared understanding. Shared understanding and common ground among people in a community are essential for collaboration and productive knowledge transfer.

- Measuring: Involves measuring the effects end success of the e-learning activity within the suggested model.

- Learning: Organizational learning requires continuous assessment of organizational performance, looking at successes and failures, ensuring that learning take place to support continuous improvement. Learning and improving hinging on the total quality management philosophy of continuous improvement. The learning cycle is described as made up of three elements:
  a. Learning before doing, or the process of learning before undertaking a task, activity or project.
  b. Learning during doing, or the process of learning whilst undertaking a task, activity or project.
  c. Learning after doing, or the process of learning after undertaking a task, activity or project. The measure will lead the organization towards further efforts to better improvement. Finally, all the academic staff should be invited to reflect on what they learned, and how they might apply it to move forward. Students in
the e-learning communities can develop their ability to communicate and participate in collaborative and productive work.

CONCLUSION

As the world today demands increasingly more educated individuals of high quality, education and societies ask for more quality education; therefore, e-learning will continue to drive the transformation of traditional institutions of learning and help shape a number of futures not only for the education and training sectors, but also across most industries sectors. (This statement may need further research).

For a successful e-learning and a high quality plan, strategy is required for an educational institute to plan, develop, and implement significant changes affecting their curriculum, administrative structure, processes and perceptions. The universities and other institutions in the Gulf Region should claim other efforts to approach a standard of high quality e-learning such as the convenient technology, text books, and other convenient educational resources. An effective KM strategy and a high quality e-learning require processes that govern the creation, dissemination, and utilization of knowledge by merging technologies, organizational structures, and people to create the most effective learning, problem solving, and decision making in a university/college. Such initiative requires the combination of two main strategies: the promotion of knowledge creation and sharing at all levels, and the application of the right mix of KM tools and techniques.

This paper has tried to solve some potential problems in e-learning education that hinder knowledge creation and sharing among universities/colleges academic staffs in the Gulf Region. The paper suggested a model for measuring e-learning quality, and how to use the findings for leveraging an educational institution capacity in order to aid proper KM.

LIMITATIONS OF THE STUDY:

The problems of e-learning quality need to be studied based on actual case studies. KM tools and techniques need to be explored, and the results from the studies need to be evaluated. Leaving such limitations for further study.

REFERENCES


Hodgins, W., (2003), Information about all the Learning Standards being Developed. Available online at: WWW.Learnativity.com/standards.html.


Nottingham, A., and Park, B., (1999), Knowledge Management: Reconsidering Knowledge Workers, Proceedings of the 9th Annual BIT Conference (Manchester Metropolitan University, UK, November 1999), and Paper No.78.


RE-ENGINEERING INTELLECTUAL RESOURCES IN EDUCATION INDUSTRY: ACADEMIC EXCELLENCE PERSPECTIVE

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ABSTRACT
This article examines issues in the education industry and the development of intellectual resources. Although there is little doubt that academic excellence provides substantial benefits to research institutions, several techniques to evaluate academic excellence have not been successful. Emphasis is placed on the academic excellence perspective. Intellectual resources as well as academic excellence rewards are core values of creativity, innovation, and invention. However, there is ambiguity in the evaluation process that is used to determine intellectual quality, as well as the definition of academic excellence (Barbarie, 1986). To examine the underlying patterns in the study, and the use of active interview technique, the author considered grounded theory as the most appropriate methodology. A selective coding procedure was used for the analysis and interpretation of data. The author proposes multiple assumptions concept and relevant re-engineering criteria. The findings raise awareness for further argument.

Keywords: Academic Excellence, Intellectual Resources, Education Industry, Research Institution.

INTRODUCTION
The need for intellectual resources as a key source for academic excellence in the education tradition has become a contemporary debate (King, 2005). The recent interest in the academic excellence concept reflects a paradigm shift, which research institutions have to deal with, although there is perception of inconsistency and unclear definition of academic excellence. Research institutions are hence looking for effective and new ways to clarify this ambiguity. A vital approach for achieving a clear definition of academic excellence is to distinguish, expound or revive the existing intellectual resources so that academic excellence can be fully recognized by all institutions.

This study introduces a multiple assumptions framework as a concept to re-engineer intellectual resources that can ensure sustainable academic excellence for research institutions. Firstly, the author investigated how existing intellectual resources could be useful, efficient and effective. Secondly, how intellectual capital (i.e. academics and practitioners) from various research institutions perceive the paradigm shift.

THE PROBLEM
Rao (2005) prompted the lack of techniques to evaluate academic excellence and alleged that, this may lead to negative consequences. For example, Time-Cost-Effect: the time between expenditures for research and acceptance of any result can be long and sometimes measured in years. King (2008) commented that, by the time research outcomes can be properly evaluated, “intellectuals” have moved on to new research. Study of the education industry involves evaluation of both internal and external factors of all scholarly resources that are relevant to society. However, basic intellectual efforts frequently contribute only a fraction of the aggregate required to achieve new knowledge that benefits society.

Researchers most often contribute vigorously by opposing judgment and evaluation of their work by other than peer scientists (Barbarie 1986). Indeed, any number of external dynamics can interfere with reaching innovations and inventions. The author raised the following intellectual questions:
What is the education industry’s vision and mission in relations to academic excellence?
Which strategies will contribute to the accomplishment of academic excellence?
How can research institutions contribute to the achievement of the academic excellence?
Is knowledge Excellence on the same level as academic excellence?

The accomplishments of research institutions in this era depend crucially on the excellence of knowledge. Therefore, understanding the challenges of coordinating intellectual resources, a collaboration need among research institutions, in an effective re-engineering approach, and ensuring sustained academic practice is essential. Likewise, research institutions relate mostly to the conventional intellectual practices and methodologies. The author highlights some of the rationale listed below as drivers for re-engineering intellectual resources:

**RE-ENGINEERING INTELLECTUAL RESOURCES**

![Diagram of Drivers for Intellectual Resources]

- **Re-engineering Research institutions**
  - By re-defining intellectual resources, new knowledge, creativity and innovation can be gained. This will enforce and propose new ways for academic thinking.

- **Knowledge Retention**
  - Based on Stefanescu et al.’s (2008) argument, re-engineering operations in the research environment require strong knowledge maintenance capabilities and managerial infrastructure. To retain knowledge excellence, motivation and adequate incentives must be established.

- **Effectiveness**
  - Research institutions are required to re-engineer their intellectual capital to enhance, create new knowledge and achieve the highest excellence.

- **Workforce Retirement Challenge**
  - There are trends for early retirements, which lead to loss of good knowledge as well as challenges for the needs of the workforce after retirement. The retirement workforce may enlarge to the point where intellectual resources will regard their careers as project-based and under-utilized.

- **Innovation**
  - Research institutions are increasingly determined to grow and the rate of innovation is rising. Hence, intellectual resources must change and be integrated with existing human capital (Macintosh, 1998)

*Figure1: Drivers for Intellectual Resources*

It can be argued that, there should be a requirement to establish and maintain the significance of intellectual resources in the overall objective of the education industry and research practice (King and Marquis, 2006). In effect, there should be steps to preserve research institutions’ mission. From this perspective, the guidelines (the steps) would allow proper control and maintenance of intellectual resources. Highlighting issues that are essential to the intentions of intellectual resources and to the overall education environment could provide continuous analyses. An outcome of analysis of existing protocols that are in place in research is assumed to contribute enormously to academic excellence.

In establishing an intellectual resources tradition, it is crucial to: (1) understand what the values will be to the education industry, (2) determine what can be practical and viable, (3) ensure that resources are reproduced in a
proper manner, and (4) ensure the education industry has well-established systems to support such tradition. The following (Figure 2) identifies and discusses five underlying re-engineering assumptions of intellectual resources in research institutions.

UNDERLYING MULTIPLE ASSUMPTIONS

![Figure 2: Multiple Assumptions]

**Assumption of Knowledge Excellence**

Researchers are key components of an institutions’ intellectual resources, hence the type of practices existing in the education sectors are very central to the success of knowledge. Davenport (1998) highlights that as research institutions interact with their surroundings, they absorb information, turn it into knowledge and exploit it with their experiences, values and norms. Research institutions that are determined to pursue knowledge excellence encourage their faculty, promote efficient practices and sustain continuous research. Knowledge excellence is a fundamental building block to intellectual resources (Davenport and Prusak, 1998).

When knowledge excellence is re-engineered appropriately, with simultaneous efforts to administer change, distinctive knowledge can be achieved. This has enabled the education industry in general to be more viable, both in the short term and in the long run. Stefanescu et. al. (2008) and King and Marquis (2007) have noted that, re-engineering intellectual resources is one of the most crucial factors of success for research institutions and by no means a difficult one. It is important to re-engineer conventional methods, include human capital and establish new knowledge (Stefanescu et. al., 2008). This would validate how research institutions recognize knowledge excellence and advance intellectual resources. This will require intellectual capital, creativity, strong leadership and change.

**The Assumption of Research Institutions**

Research institutions require systems and practices that allow intellectual resources capabilities. The focus of education industries’ attention on systems, as opposed to intellectual resource practices, has led to initiatives and practices that can generally be interpreted as essential to the academic excellence image. Such representations embrace knowledge and information sharing on the principles of “best practices” as well as using developmental
symbolism. Beyond reasonable justification, few institutions, however, apply academic excellence broadly throughout their establishments.

The engagement necessitates a methodical and holistic analysis of good “knowledge” which according to Rao (2005), King (2006) and Guo (2006) also underpins the perception of the strategic role of knowledge creation, sharing and use. The academic excellence “code”, plays a significant role in developing and maintaining research institutions’ intellectual resources. For academic excellence to really expand and uphold its perception, the education industry and “leaders” may need to redefine the fundamentals and the postulations of research institution. From the perspective of academic excellence philosophy, research institutions and the education industry in general, may consider restructuring.

The Assumption of Intellectual Exclusivity

The significance of intellectual resources is immeasurable, however, it is not an adequate decisive factor for achieving academic excellence. If similar attributes of intellectual resources are found in various academic practices then that attribute cannot determine the source of academic excellence for any one institution.

Usually, research institutions are very good at accumulating intellectual resources, but very few institutions ensure that the resources are put to good use. Furthermore, some research institutions have established a tradition of acquiring intellectual resources, and for institutions that link intellectual resources with academic excellence, seldom go beyond the academic tradition. The institutions that yearn for improvement, there is a need to understand the core values of research institutions (both implicit and explicit) so that a successful intellectual gain is attained.

The Assumption of Exceptionality and Leadership

To ensure that research institutions are not at a substantial drawback in exceptionality, academic leaders must examine how to develop and exploit rare characteristics of other institutions. Exceptionality of intellectual resources in research institutions can enhance the overall academic excellence in the short term. However, if most institutions can mimic this exceptionality, then in the end, exceptionality would provide no more than practical uniformity.

Leaders should attempt to advance the characteristics of intellectual resources that can be useful to society. The argument is to have a good and unique knowledge infrastructure, which would support education industry goals. Probably, this can converge with the importance of socially complex phenomena. It is likely that every institution has a distinctive educational goal. However, it is unlikely that they have a “chronicle” of the process of achieving the goal, which defines the current situation and in turn creates a foundation for a prospective atmosphere. Unfortunately, this prohibits well-intended institutions and others to emulate success. At the same time, academic excellence within research institutions could maintain their intellectual resources, which frequently are based on the education industry’s objectives.

Assumption of value

Research institutions create value through (A) escalating the quality (B) re-engineering and (C) differentiation in a way that allows institutions to be branded with the “logo” of excellence. Thus, the ultimate goal of any intellectual resources is to create value through knowledge excellence. Remarkably, it is imperative that academic practices influence the quality in the education sector. As long as the quality is observed within research institutions, the value of intellectual resources could be realized. Also, the contemporary application of intellectual resources has enlightened the weight of academic excellence that creates value.

RE-ENGINEERING AND PERCEIVED STRATEGIES

Intellectual resources strategies result from the awareness of, and responses to, trends in the research institutions. The formulation of these strategies depends on the ability of leadership to change education industry
traditions. The education industry should have a culture that creates opportunities for tacit knowledge to be made explicit. It can be assumed that strategies for establishing an academic excellence environment would differ from one research institution to the other.

As indicated by King and Marquis (2007), the need for a comprehensive re-engineering strategies, the pursuit of successful strategies, how the education industry should approach the establishment of intellectual resources is significant. The perception should focus on successfully leveraging the traditional components to execute and sustain intellectual resources. Also, it can be argued that, sustainable strategies should be re-engineered, to include people (faculty or the “think tank”), and adequate funding.

Re-engineering intellectual resources strategies, priorities of activities must be established and ensure integration with the entire education industry practices (King and Marquis, 2007). Effective intellectual resources strategies are about defining what needs to be achieved and motivating capable faculty who want to achieve excellence (Campbell & Luchs, 1997). Strategies must also re performance with objectives, and measure the overall efficiency and effectiveness of the education industry’s attempts, to facilitate the attainment of its avowed intentions and objectives.

Davenport (2003) has also indicated that, for effective re-engineering, there must be a need to adhere to all outlined attributes of perceived strategies Failure to affix to re-engineering strategies could send strong repercussions to the “industry”. This will indicate that leadership is not serious about academic excellence and the commitment needed to sustain intellectual resources would be ineffective.

**RESEARCH METHODOLOGY**

An active interview technique was selected for the study. A diverse range of faculty members from accredited and non- accredited four-year institutions were interviewed. Since the concept of intellectual resource re-engineering has recently been critical, it was necessary to handpick academics who volunteered to participate. Respondents were cordially invited and attended IIC 2007 and 2008 academic forums in Nashville-Tennessee and Atlanta-Georgia, where the author chaired his presentation sessions. The author selected academics that were actively involved in the education industry, and have understanding of the term academic excellence. One Hundred and Ten (110) respondents were considered to have a holistic view of the “education politics” on academic excellence. They were aware of the value of intellectual resources on all levels in the education industry, particularly on the issues of knowledge and academic excellence. The following statistics (figure 3) illustrate the background of participants’ faculty positions and accreditation status.

<table>
<thead>
<tr>
<th>Faculty Position</th>
<th>Percentage</th>
<th>Accredited Institution</th>
<th>Non-Accredited Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Professor</td>
<td>12%</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>8%</td>
<td>8%</td>
<td>19%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>22%</td>
<td>6%</td>
<td>16%</td>
</tr>
<tr>
<td>Practitioner</td>
<td>6%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Director</td>
<td>3%</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>

*Figure 3: Descriptive Statistics of Data Collection*
A semi-structured, active interview technique in six (6) core subject areas was used as depicted in figure 4 below.

**Figure 4: Active Interview Core Questionnaire**

**Fieldwork**

To examine the underlying patterns in the data, the author considered grounded theory as the most appropriate method for the analysis and interpretation of the data. To analyze the data according to grounded theory, the data were coded and examined according to a number of coding procedures. Due to the complexity and degree of intensity of the study, the author used the following sequence: open coding, axial coding and selective coding. In the analysis of the data, the author used selective coding. According to Strauss & Corbin (1990), selective coding is the highest level of coding. It is the process of selecting the core categories, relating systematically to identified subcategories and other categories, validating these relationships, and filling in categories that need further development and refinement, again by means of observation and memorandum (Strauss & Corbin, 1990). In order to organize and categorize the data obtained through the active interview technique, the following procedure was followed:

All recorded interviews were transcribed verbatim. Furthermore, the completed transcriptions were thoroughly analyzed according to selective coding. Based on selective coding, subcategories categories were developed. These categories reflected the responses of the participants, which covered the core topics (see Figure 4 above) presented in the interview process.

Table 1 below illustrates seven selective coding core categories that were identified.

**Table 1: Selective Coding Core Categories: Findings and Discussion**

<table>
<thead>
<tr>
<th>1</th>
<th>FINDINGS</th>
<th>Core Categories: Education Industry Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>✓ A high proportion of respondents indicated that research institutions are not practicing academic excellence fully.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓ The findings indicate that research leaders are key to the execution of academic excellence, therefore, there is a need to have a change in place in the education industry in order to obtain support from intellectuals.</td>
</tr>
</tbody>
</table>
2 FINDINGS

**Core Categories: Understanding the Concept of Re-Engineering**

- Re-engineering intellectual resources is a new concept, however, respondents understood its importance to the academic excellence phenomenon. Nevertheless, respondents indicated that there were a variety of definitions and unfair standards for what academic excellence is perceived to mean and entails.
- Respondents indicated that intellectual resources as a concept is a broad and relevant topic, therefore a common definition as to what it entails will be significant. In addition, respondents believe that it is very significant to the success of research institutions.
- Apparently, a universal need exists to publish the concept to the intellectual group in order to ensure a general and common understanding of the concept. In addition, research institutions in the education industry need to understand the concept so that the implied knowledge excellence practices can be acknowledged.

3 FINDINGS

**Core Categories: Recognition of Academic Excellence**

- Academic excellence was recognize as a vital institutional value.
- It can be argued that research institutions which are found at the bottom of academic excellence list, are either non accredited or there is lack of incentives.
- Therefore, these research institutions either lack the support or have their own strategies and agenda.
- Recognition of faculty competencies, skills and capabilities was also seen as being important.

4 FINDINGS

**Core Categories: Awareness of Knowledge Excellence**

- Awareness about knowledge excellence was seen as critical academic value that could be interpreted to mean intellectual resources about the practices of the education industry.
- Knowledge about faculty competencies, skills and capabilities was noted as being important to seek accreditation.
- Different research institutions showed wide differences, this was perhaps based on the needs and focuses at a particular moment in time.

5 FINDINGS

**Core Categories: Intellectual Resources**

- A large number of the respondents highlighted that existing intellectual resources are mainly a knowledge warehouse that needs to realize their full potential.
- Academic performance could provide intellectual activities (useful research), turn data into useful information and eventually help society.
- Respondents also indicated that the education industry must establish clear guidelines for the utilization of the term “excellence” to identify their intellectual resources.
- Respondents indicated that there is a lack of “enablers” (i.e. resources, authorities, and opportunities) in the overall education industry.
### Core Categories: Research Institutions

- Research institutions like any other institutions require leadership commitment to create an environment within which people are able to share knowledge and are allowed to assimilate as well as practice the knowledge gained.
- Existing research institutions must play a very crucial role in creating the right tradition for intellectual resources via knowledge sharing with other institutions as well as making their knowledge explicit.
- The education industry must support or assist the motivated faculty to have easy access to the information required to perform academic excellence tasks.

### Sub-Categories: Miscellaneous Keynotes

- Few but key respondents asserted that, they are aware of research inconsistencies in the education industry where dishonesty occurs among higher authorities.
- There is a concern that much can be done to ensure the preservation and sharing of the expertise of both practitioners and academicians before they are lost.
- A number of respondents acknowledged that research institutions suffer in a number of ways when intellectual resources point in the “opposite direction”.
- It was noted that, if research institutions are managed properly, the risk of having academic excellence gaps could be minimized due to knowledge transfer and accountability.

### RECOGNITION OF ACADEMIC EXCELLENCE

Once intellectual leaders understand specific ways in which knowledge provides value, it is necessary to examine the value that research provides or can provide. Academic excellence practices are important “pedals” by which institutions develop effective intellectual capital and innovation. Academic excellence practices can also help to develop “knowledge-based” faculty who are willing to make value-added decisions, and provide research contributions that can fulfill objectives of research institutions. In other words, academic excellence recognition plays an important role in developing knowledge assets that provide a “spirited” professionalism. Similarly, failure to develop intellectuals that could help address research needs, results in less than optimal education effectiveness.

### CONCLUSIONS AND RECOMMENDATIONS

The author investigated intellectuals to seek perspectives on six core and significant subjects: (1) research institutions (2) education industry (3) academic excellence (4) intellectual resources (5) knowledge excellence and (6) re-engineering. The focus was mainly on academic excellence and intellectual resources. Although there is discernment that academic excellence provides substantial benefits to research institutions, the author applied techniques and assumptions that would contribute to the success of academic excellence. Discrepancies and unclear definitions of academic excellence among research professionals in research institutions were examined and discussed. Findings revealed that Intellectual resources as well academic excellence rewards are core values of creativity, innovation and invention. The study also found ambiguity and inconsistencies of the evaluation process in determining intellectual quality and academic excellence. The author believes that research institutions are the backbone and contributors to intellectual resources. A selective coding (grounded theory) procedure was used for the analysis and interpretation of the data. The author raised awareness and proposed multiple assumptions framework that requires further study.
REFERENCES


FASHION INFUSION

Natalie Weathers
Philadelphia University

ABSTRACT
This is a study of the one-directional transfer of ideas from the fashion realm to realms where those ideas are translated into product design and branding strategies. The focus is on how the transfer of those ideas occurs, and the effects of that idea transfer. Those ideas are fashion elements, and the process of that transfer is fashion infusion. My rationale for doing this research stems from three interests: to explore fashion’s application beyond the apparel realm; to use fashion infusion as a means to study cultural production; and to understand the transfer of fashion elements into consumer products, and the transformation of those consumer products into experiential products.

Some of the key texts influencing the preliminary direction of my research include Brooke Hodge’s Skin and Bones (2006), Mark Tungate’s Fashion Brands (2004), and Ilka Tuomi’s Networks of Innovation (2002). The remainder of my literature review has focused on four areas: diffusion of innovations, organizational theory, fashion theory and cultural studies. I conducted a pilot study in 2007 of a range of companies across industries that appeared to exhibit idea transfer. The pilot study consisted of fifteen interviews with design and trend practitioners at these companies.

What has evolved from these perspectives combined with my work experience in the fashion industry is the fundamental question: What is the impetus to integrate fashion elements into consumer products, resulting in experiential products? The subsequent question that then forms the basis of my research is: How do fashion elements get integrated into experiential products and what are the results of the fashion infusion process?

This research will contribute to multiple theories including idea transfer, social networks, cultural theory and fashion theory. This investigation is important because minimal research has been done to date that examines the meaning of fashion elements’ integration into products outside of clothing. Fashion theorists assert that fashion is a social and cultural phenomenon, mediate between the individual and the collective, and gives a sense of identity. This research will extend that explanation of fashion’s significance to mainstream consumer products. This departure is important because it shows a broader application of fashion theory. In summary, this research will contribute to the field of knowledge because 1) it can teach us about how ideas diffuse through social networks; 2) minimal research has looked at the role of the manufacturer in diffusing innovations to other industries; 3) it will shed light on hybrid practices of the future.

INTRODUCTION
I am at the beginning stages of studying the one-directional transfer of ideas from the fashion realm to realms where those ideas are translated into product design and branding strategies. I am interested in how the transfer of those ideas occurs, and the effects of that idea transfer. I call those ideas fashion elements, and I call the process of that transfer, fashion infusion. My rationale for doing this research stems from three interests: to explore fashion’s application beyond the apparel realm; to use fashion infusion as a means to study cultural production; and to understand the transfer of fashion elements into consumer products, and the transformation of those consumer products into what I call experiential products.

My interest in idea transfer from the fashion industry to other realms began with consultation work I completed in 2005 with an international chewing gum company on their package design. In the consultancy with the gum
company, I collaborated with designers and trend researchers from Gucci, Coach and Maybelline Cosmetics. Our
task was to explain to the industrial designers at this gum company the ways that fashion brands apply color
forecasting, trend forecasting and fashion design principles, and then assist them in transferring and implementing
those fashion brands’ strategies to the chewing gum’s package design. From this consultancy I learned that
design and branding concepts used in the fashion industry are learning tools for other industries. This led to my
interest to explore why and how consumer products companies integrate ideas from the fashion industry into their
product design and branding strategies.

Fashion elements are a key asset in the successful branding of consumer products today. Successful branding
incorporates style and design, and fashion is at the forefront of style (Gobé, 2001; Tungate, 2004). Why do
consumer products incorporate fashion elements into their brands’ styling and what process do they use to do
this? What makes fashion elements a compelling source for product innovation and branding? My preliminary
research on fashion infusion suggests that this is happening in cell phone design, automotive design, detergents’
packaging and scent formulation, chocolates and the hospitality industry. This paper will highlight the ways that
fashion elements are an asset to consumer products’ branding and market innovation at a specialty chocolates
company and at an automotive company. It will explore why fashion infusion occurs and how it manifests itself in
these two areas. The paper will conclude with some thoughts on the broader implications of fashion infusion as an
example of a network of meaning (Bourdieu, 1993; duGay, 1997; Tuomi, 2002; Currid, 2007).

In the summer of 2007 I conducted sixteen interviews with design and trend practitioners from a range of areas:
chocolates, automotive, telecommunications, package design, dining/restaurants, fragrance forecasting, textile
design and architecture. My first purpose for conducting those interviews was to understand from the practitioners’
point of view whether or not fashion infusion is actually occurring. I learned that fashion infusion does indeed
occur, and that its process is heterogeneous; it comes from a number of different data points. My second purpose
was to get a sense of why these practitioners thought fashion infusion was occurring. In other words, I was
interested in understanding fashion infusion as a network of meaning from the practitioners’ interpretive process
and point of view.

Some clarification of terminology I use is necessary. I recognize that there are complications in defining the term
‘fashion’. Fashion is ubiquitous in contemporary Western society but simultaneously challenging to confine to one
neat definition or to one context. There are vague definitions and multiple meanings attached to it. Cultural and
fashion theorists refer to fashion as a social and cultural phenomenon and as a mode of cultural consumption and
production (Barnard, 2007). Scholars think of fashion as a generalized phenomenon of human behavior. The
fashion theorist George Sproles defined fashion as “temporary cyclical phenomena adopted by consumers for a
particular time and situation” (Sproles, 1981: 116). Fashion is applied to cars, cell phones, food, even vodkas
(Silverstein + Fiske, 2005). Fashion can be used as a verb, as in to give shape or form to something, or as a noun
when referencing prevailing style of dress or custom. It is associated with fads and trends. For my research
purposes I have oscillated between the terms ‘fashion’ and ‘style’, only to settle on fashion presently because
style is even broader in scope and has another host of ambiguities complicating its meaning. One of my short-
term objectives is to clarify my use of fashion versus style with further readings and discussions with my
informants as I develop case studies.

My working definition of fashion is that it is a social phenomenon that imbues objects with cultural meaning based
on ideas from designed apparel. The fashion industry consists of a supply chain including designers of
fashionable clothing, the mills and factories producing that clothing, the retailers selling that fashion clothing, and
auxiliary operations. Those auxiliary operations, or realms, rotate around and intersect with the fashion industry.
The realms include, for example, home furnishings, cosmetics and fragrances, and the entertainment industry.
The fashion industry is one means for other products in those realms to achieve the attributes of a lifestyle brand.
Because of the multiple extensions of the fashion industry into these other realms, fashion has become
ubiquitous. The fashion industry is part of a web that can be envisioned as a Venn diagram, each circle
representing a realm that intersects with the fashion industry and vice versa. While the influences in this web are
multidirectional, that is, developments in the fashion industry are also influenced by these other realms, my
research will focus on the direction of ideas from the fashion industry outward to other realms.
The ideas that are embedded in the fashion industry are both physical and conceptual, and I call them fashion elements. I divide fashion elements into two categories, aesthetic fashion elements (the physical elements) and intangible fashion elements (the conceptual elements). Aesthetic fashion elements include color, texture, pattern, print, silhouette, drape, bespoke details and customization. The aesthetic fashion elements are parallel to Sproles and Burns’ (1994) “code of fashion” which includes fabric, texture, color, pattern, volume, silhouette, and occasion for which the fashionable garment is worn. Those aesthetic fashion elements are encoded with intangible fashion elements, the second category: emotion, identity, personality, symbol, vitality, personalization, experiential aspects and sensorial aspects. I have named the phenomenon of incorporating fashion elements into ordinary consumer products, fashion infusion. Fashion infusion is a diffusion process whereby fashion elements are adopted by designers and marketers, across social systems, into consumer product design and branding strategies. Fashion infusion becomes a vehicle for innovation. This definition is influenced by Workman and Studak (2007) and Kaiser (1997) who examine the spreading of fashion innovations within and across social systems.

I purposely use the term infusion instead of diffusion for two reasons. First, the body of literature on fashion diffusion is specifically about the spreading of clothing styles in society and is focused on apparel. Second, while diffusion denotes spreading out and dissemination, infusion denotes introducing, imbuing and inspiring. Thus using the term infusion while incorporating some of the concepts from innovation diffusion adds meaning to fashion infusion. Additionally, diffusion, as detailed in the diffusion of innovations literature, has connoted deliberate, strategic patterns and pathways of innovations that can be quantified and tracked. The diffusion patterns in fashion infusion are less quantifiable and more emergent (Mintzberg and Waters, 1985). The fashion infusion process is more consistent with the Mintzberg (1987) school of thought on strategy which says that strategy occurs in more haphazard, less pre-set ways. The fashion infusion process culminates in consumer products that serve beyond a functional level, and deliver an experience to consumers. I call those resulting products, experiential products. The color forecaster Bruno Remaury has commented, “Fashion is based on creating a need where, in reality, there is none. Fashion is a factory that manufactures desire” (Tungate, 2004: 8). That desire is one example of the intangible fashion elements that can be embedded in experiential products. I have developed the following conceptual framework to illustrate the idea transfer that occurs through fashion infusion.
The transfer of ideas, fashion elements, through the fashion infusion process:

Some of the key texts influencing the preliminary direction of my research include Brooke Hodge’s Skin and Bones (2006), Mark Tungate’s Fashion Brands (2004), and Ilkka Tuomi’s Networks of Innovation (2002). Hodge’s work discusses the intersections and distinctions in the works of contemporary architects and fashion designers. She notes that designers in the two fields have not always collaborated although there have always been similarities in terms of functionality, the symbolic ability to express identity, and the creative process. She calls that collaboration a cross-fertilization process and explores why it is only in the past twenty years that there has been more collaboration between these fields. Hodge proposes that the main reason is that the social networks of the fashion and architectural worlds have begun to overlap. More fashion designers are commissioning architects to design their retail spaces: the retail collaboration between fashion designer Miuccia Prada and architect Rem Koolhaus is a good case in point. In addition, as architects use more software, they look to fashion designers for inspiration because fashion designers have a long history of dealing with complex forms and constructions through CAD (computer aided design) that architects now incorporate (Hodge, Mears, and Sidlauskas, 2006). Skin and Bones is useful as a case study that explores a future direction of what Hodge calls “hybrid practices of the future, when technology, material and conceptual borders between fashion and architecture could all but dissolve.” I extend Hodge’s concept of hybrid practices of the future to include the fashion infusion process, as an illustration of conceptual borders breaking down between the fashion industry and other realms. I will also be interested in exploring why these hybrid practices are occurring today in particular.

Mark Tungate’s Fashion Brands (2004) examines the ubiquitous nature of the fashion industry in contemporary Western society, and the fashion industry’s unique branding methods. Tungate’s discussion of fashion brands focuses on fashion apparel, accessories and footwear. Through his interviews with various stakeholders in the fashion industry, Tungate considers the distinct qualities of fashion brands: fashion simultaneously mirrors society and idealizes a better, perhaps fantasy, world; in addition, fashion brands are expert at turning sub cultural trends into marketing opportunities. Tungate’s points influenced my thinking to explore what could make fashion brands interesting models of brand innovation for other industries.

Ilkka Tuomi’s Networks of Innovation- Change and Meaning in the Age of the Internet (2002) upholds a user-centric view of innovation. He believes that innovation is fundamentally about social change. His work is useful to my research for two reasons. First, he broadly defines users of innovations to include manufacturers as well as consumers. This is a relevant perspective as my case studies will be from the perspective of product designers and marketers at these companies- not from consumers’ perspectives. Second, he uses fashion as a case study to illustrate how innovation becomes meaningful when used in social practice. The fashion case study is a good example of how innovations are adopted not only because they make something work better, but because they are social and full of meaning. Fashion as innovation posits innovation as part of a network of meaning; that is, as

FASHION INFUSION CONCEPTUAL FRAMEWORK

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Fashion Infusion

part of a system valuable for the meaning it bestows, not only for its functional value. Meaning is a product of cultural beliefs and values; it is not simply a message sent to a receiver (Barnard, 2007). This social view of innovation, and Tuomi’s specific examples drawn from the fashion industry, influenced me to explore the social networks present in the fashion infusion process as networks of meaning.

What has evolved from these perspectives combined with my work experience in the fashion industry is the fundamental question: What is the impetus to integrate fashion elements into consumer products, resulting in experiential products? The subsequent question that then forms the basis of my research is: How do fashion elements get integrated into experiential products and what are the results of the fashion infusion process?

In the case of specialty chocolates, one of my interviews was conducted with Maribel Lieberman the owner of the New York City based Mariebelle Chocolates. Fashion infusion was evident in package design as well as printing techniques on the chocolates themselves. Interestingly, Ms. Lieberman’s background is as a fashion designer, which may make her more open to borrowing ideas from the fashion realm and integrating them into her work. Mariebelle’s packaging is in the colors turquoise and deep brown, which when she started her company, were untraditional colors to apply to food. She used these colors, because they were colors she wore in her own clothing. She applies a screen printing technique to decorate the surface of the chocolate candies with a range of colorful patterns and images. Her chocolates become reminiscent of small fabric swatches. In addition, she launches “collections” essentially. One notable collection in the context of fashion infusion, was her pin-up doll series, where she licensed images from the artist Alberto Vargas’ pin up doll posters from the 1940’s. The use of the term “collection”, common in the fashion industry, is one way that an idea from the fashion realm transfers to a chocolates company adding value to its marketing initiative. Ms. Lieberman believes that fashion elements are useful in her chocolates’ product development because “Fashion has always been a part of our lives since the beginning. Why? It is about beauty... the sensorial experience. Beauty helps us to make an experience out of things.” For Mariebelle Chocolates, the sensorial experience is key, and integrating ideas from the fashion realm is one way to deliver a sensorial experience.

In the case of the automotive industry, my interview with Chris Webb, a color and trend designer for General Motors (GM), pointed out some interesting intersections with the fashion industry. Mr. Webb pointed out that the automotive sector has “couture” lines of its specialty cars, that it looks to the fashion industry for upcoming trends on color and line, and that both fashion and cars are extensions of the consumer’s personality. Mr. Webb gave three basic reasons for why fashion elements are useful in automotive product development: 1) fashion is personal and literally “touches” the body; 2) the fashion industry’s faster product development cycle (three months versus three years) gives it an edge in visibility to the consumer; and 3) the average consumer is more exposed to fashion through the media and is more design savvy. All of these examples are reasons why the automotive industry is interested in idea transfer from the fashion industry for its own market competitiveness.

Mr. Webb gave an interesting example of collaboration between GM and Dana Buchman, a fashion division of the Liz Claiborne company. In the process of leading a trend meeting where Liz Claiborne designers were present, the two companies discovered that the Cadillac SRX and the Dana Buchman line targeted the same consumer. From that discovery, a collaboration was formed, where Dana Buchman designed a limited line of Cadillac SRX automotives. Her fashion sensibility influenced the silk quilted seating, the pearl toned color palette, and the bejeweled details on interior panels. This is a clearer example of the transfer of ideas from the fashion industry to the automotive industry to more effectively target consumers.

One reason why fashion elements are a compelling source for product design innovation is because experimentation, fluidity and renewal characterize fashion. Clothing’s communicative function and symbolic power (Crane, 1999; Du Gay, 1997; Barthes, 1990) also make fashion elements reasonable sources for innovation by consumer products firms. Both the aesthetic fashion elements and the intangible fashion elements become desirable marketing vehicles for consumer products in a competitive market (Silverstein + Fiske, 2005). My data also highlights an American consumer base that has broad exposure and access to fashion through the media, the Internet and other communication means. These consumers expect an upgraded product, be it a metallic pink colored cell phone that snaps shut like a cosmetics compact; a dish detergent bottle shaped like a teardrop whose
contents smell of the ylang-ylang flower; or a car whose interior design is the byproduct of collaboration with a current fashion designer. Consumers expect products that deliver experience to them (Gobé, 2001; Author’s interviews, 2007). They have been getting aspirational experiences from their fashionable clothing for years; they now expect those experiences when they dine in a restaurant, spend the night in a luxury boutique hotel, or bite into a chocolate candy bar.

There are key three findings from my pilot study. First, that the fashion discourse is broad. That is, fashion is a term applied widely today, beyond clothing, branching out to a range of consumer products (Weisman, 2004; Loyaute, 2006; Hodge, 2006; Martin, 2007; Ramstad, 2007; Author’s interviews, 2007). Fashion’s stylizing function has had useful branding application for a number of industries. For example, the Volkswagen Bug automobile is merchandised in a plethora of colors mimicking cosmetic nail polishes; boutique restaurants are styled with couture dresses in mind as an inspiration source. Second, that fashion infusion is a compelling method for styling, branding and innovation because fashion elements are the foundation for a network of meaning (Tuomi, 2002; Author’s interviews, 2007). Fashion infusion is a means to give ordinary consumer products significance and value in cultural life and in commerce. Third, that fashion infusion points out a web-like cross-fertilization process of product innovation (Author’s interviews, 2007). My data has surfaced some differences from the literature on diffusion of innovation, which highlight more concrete personal relations or networks (Granovetter, 1985; Grabher, 2002; Troshani + Doolin, 2007).

This research will contribute to multiple theories including idea transfer, social networks, cultural theory and fashion theory. More broadly, it will shed light on what Brooke Hodge called hybrid practices of the future: In an age where boundaries between disciplines and industries are blurring for the sake of creative innovation, it is useful to have a study that examines how those practices come about and the effects of those hybrid practices. This investigation is important because minimal research has been done to date that examines the meaning of fashion elements’ integration into products outside of clothing. Fashion has been called “an expressive playground for creative social practice” (Barnard, 2007; xi). Fashion theorists assert that fashion is a social and cultural phenomenon, mediates between the individual and the collective, and gives a sense of identity. This research will extend that explanation of fashion’s significance to mainstream consumer products. This departure is important because it shows a broader application of fashion theory. In summary, this research will contribute to the field of knowledge because: 1) fashion infusion is a process that can teach us about how ideas diffuse through social networks; 2) fashion theory has not looked as much at the role of the design developer or the manufacturer in diffusing innovations to other industries; and 3) fashion infusion will shed light on hybrid practices of the future.

This investigation is important because minimal research has been done to date that examines the meaning of fashion elements’ integration into products outside of clothing. The materials and iconography of fashion are so ubiquitous that the engineering, art and commercial acumen involved are taken for granted: “Fashion is thought of as ephemeral and superficial” (Hodge, 2006). Its fleeting nature often belies its weightiness in the consciousness of popular culture (Lehman, 2000). Through fashion design, a one-dimensional piece of fabric is transformed into wearable art that is practical, functional and aesthetically pleasing. Add to that the emotional import embedded in clothing, and it becomes ironic that fashion can be looked upon as the more fickle of the design fields. Given the ephemeral nature of fashion those subtle and overt ways that fashion infusion occurs is very interesting to me. The democratization of fashion compels consumer products companies to utilize fashion infusion. Companies borrow from the multiple dimensions of fashion elements so that their products undergo continuous growth and innovation.

**WORKS CITED**

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