

## **Interdisciplinary Team Teaching: Leveraging Pedagogical Differences to Enhance Business Student Cognitive Capabilities**

### **ABSTRACT**

There is an increasing demand for interdisciplinary learning and teaching methods to cater to the commercial realities of industrial practice in an increasingly creative economy. Two different team teaching experiences with collaborators from different academic disciplines are analysed to investigate the way educators and students think about the development of learning and teaching methods in interdisciplinary fields. A description of each collaboration is provided, followed by an analysis of how the four key interdisciplinary cognitive capabilities outlined by Repko's (2008) were enhanced through these interdisciplinary learnings. The resulting qualitative analysis revealed a baseline level of understanding of existing and evolving practices and helped develop insight and awareness of thinking about curriculum development, teaching philosophy and classroom-based teaching styles and learning outcomes. We argue that a consilience-type of learning and teaching model along with integrated operational tools manifest in an advanced form of team teaching is necessary for interdisciplinary programs.

### **Keywords:**

Interdisciplinary; business education; case study

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In today's global, dynamic business environment, business school graduates must be able to draw upon multiple disciplines to solve the complex problems and to make the difficult decisions they will inevitably face once they begin their careers. Indeed, some issues and topics faced by today's business graduates are simply too complex for a single, traditionally-defined discipline. To be prepared for this reality, these graduates will require not only a depth of knowledge and competence in a particular field of study, but also a breadth of understanding that spans across disciplines that is buttressed by highly valued skills of problem definition, critical analysis, systems thinking, evidence-based problem solving, communication and ethical decision making. The growing unmet demand for graduates equipped to contribute meaningfully in these professions is at a critical phase, and graduate employability in these areas is in decline.

An interdisciplinary approach to learning and teaching has thus never been more important for business schools and their stakeholders. While this approach is not new, it has been discussed only intermittently over the past several decades. The limited extant literature also lacks an integrating theory or framework to help advance this important dimension of business education. Curriculum development and teaching in interdisciplinary fields cannot evolve in isolation from the progress made in the institutions that advance their cause. Indeed, it cannot evolve in isolation from the industry or field to which students wish to apply their knowledge and advance their careers. Graduates unable to meaningfully contribute to their profession from a lack of cross-discipline capability may be left behind unable to ever catch up. In support of this need, accrediting bodies such as the Association to Advance Collegiate Schools of Business (AACSB) have long called for greater integration of business disciplines (AACSB Accreditation Standards, 2002). Despite these and other calls for a more

interdisciplinary approach, business degree programs are typically taught in discipline-specific subjects, taught by scholars that are well-trained in their specific discipline and are actively encouraged to produce new research within that discipline and whom are organised in discipline-centric departments reinforcing these intellectual silos and disciplinary boundaries. Thus, the challenges for business schools to respond to this need are considerable.

To enable an interdisciplinary approach and to help prepare students for the realities of professional practice in an increasingly creative, knowledge-based economy, we propose a more consilience-type of learning and teaching model that is applicable to a variety of tertiary education settings and topics. This analysis introduces a conceptual framework with embedded cross-discipline consilience and case-based learning as a critical step in the development of an integrated curriculum design for students engaged in interdisciplinary programs that is based on a survey of expert educators and student experiences. It also describes the delivery of two interdisciplinary subjects through variants of team teaching by individuals with both cross-discipline academic expertise and industry experience. We demonstrate that this interdisciplinary approach assists students to identify, design, implement and improve the process of solving industry-related problems through an integrated approach and consilience thinking, unconstrained by traditional single discipline bias and constraints.

### **Interdisciplinary Learning**

Disciplinary depth is essential for investigating complex issues. But it also requires, fundamentally, a 'synthesising mind' (Gardner, 2007). Using disciplinary knowledge as a foundation, students can learn to make connections between disciplines by addressing a problem or issue relevant to multidisciplinary inquiry. This leads to the identification of

conceptual similarity or “common ground” with respect to the issue in question and the opportunity to try to reconcile differing disciplinary perspectives. Interdisciplinary approaches are pivotal for complex problem solving because they teach students how to understand, navigate and employ multiple and often contrary ways of knowing (Golding, 2009). Truly interdisciplinary subjects permit students to develop a meta-knowledge about different disciplines, methods and epistemologies. Importantly students also learn how to purposefully and reflectively integrate and synthesise different perspectives to promote understanding and develop robust solutions. In contrast to a discipline-field based view of knowledge, interdisciplinarity stresses the linkages and commonalities of disciplines, rather than the delineations and boundary conditions. It can also help learners to understand the plurality of perspectives from which a problem or issue can be considered or analysed, enabling deeper levels of understanding. Meeth (1978) notes that the emphasis is on deliberately identifying the relationship between disciplines. In terms of practical outcomes, Hotaling et al. (2012) found that students who take interdisciplinary courses have better outcomes than monodisciplinary students, as measured by independent evaluation from industrial professionals and job placement. Reliance on a single disciplinary perspective is prohibitive to this type of learning and development.

An interdisciplinary approach to learning requires the guidance of instructors who can model and help facilitate the development of these connections between disciplines, often as part of interdisciplinary teams. Given the realities of modern professional life, we agree with other scholars (Brew, 2008; Lyon, 1992) that such an approach must increasingly become the norm in higher education, rather than the exception. The implication is that educators must educate for both disciplinary and interdisciplinary expertise, especially in the field of business. Students increasingly need to learn how to respond to challenges that transcend disciplines, work across the nuances associated with multiple disciplines and develop

investigative paths that do not necessarily conform to standard disciplinary paths, particularly in areas where single disciplinary approaches have failed.

Traditional university structures act as a barrier to interdisciplinary course development which cannot be overcome on a sustainable basis without positive actions to eliminate such barriers. One of the key findings in research conducted by Zable (2010) was that although there is a movement toward greater use of multi-disciplined teams, they are difficult to establish without an overarching university-wide structure in place to make it happen. Creating these opportunities however is not without its challenges. For instance, logistic challenges facing interdisciplinary learning and teaching include the apportioning of fees, promoting the interoperability of specialists, maintaining focus on learning and teaching outcomes and encouraging course development to evolve with underlying technologies and techniques.

Interdisciplinary learning can be achieved in a number of ways. The most common method of implementing integrated interdisciplinary instruction is through a thematic unit where theme is studied in more than one content area (Barton & Smith, 2000). Beane (1997) advocated that curriculum integration based on collaborative design around an important issue is critical. This approach includes the integration of experiences, social integration, the integration of knowledge and integration within the design of a curriculum. This approach is offered in contrast to other types of interdisciplinary teaching because it necessarily revolves around a central theme that emerges from higher-order questions and issues with scant regard to the delineation between subjects (Beane, 1997).

One approach that is not often discussed as an alternative is to invoke interdisciplinarity through the natural diversity among group participants. Diversity of group participants in a program alone is insufficient to achieve interdisciplinary objectives. Group diversity has varying effects on a group performance, including innovation, quality of ideas

and productivity. The literature on the effects of diversity on performance however produces mixed results. For example, group diversity can result in more creative solutions (Bantel & Jackson, 1989) increased performance, and higher quality ideas in creative tasks, such as product development (McLeod & Lobel, 1992; Neale, Northcraft, & Jehn, 1999). However, other studies revealed that the overall effect on performance was found to be negative (Ancona & Caldwell, 1992; Williams & O'Reilly III, 1998) and although the creativity of the problem solutions appears to be improved, the end result of those solutions does not directly result in an overall positive performance. In contrast, Chatman et al. (1998) found that increased diversity resulted in improved productivity while Williams and O'Reilly (1998) suggest that group diversity promised only a weak positive effect on performance.

The advance of team teaching in interdisciplinary courses promises multiple benefits. Not only can team teaching offer depth across disciplines unable to be easily achieved by a single instructor it also promotes students' understanding of the linkages and interactions between disciplines. This can have a profound impact on the capacity of graduates to work effectively in teams, especially in challenging and complex work environments.

Identifying examples of the performance of interdisciplinary teams in the workplace relative to single discipline teams is a distinguishing feature that highlights the importance of considering interdisciplinary approaches in higher education. This is addressed under the guise of expertise diversity. In interdisciplinary teams in the oil and gas industry for instance, Van Der Vegt and Bunderson (2005) examined the level of expertise diversity and its relationship with team learning and team performance under varying levels of collective team identification. In teams with low collective identification, expertise diversity was negatively related to team learning and performance; where team identification was high, those relationships were positive. Their analysis also supported nonlinear relationships between expertise diversity and both team learning and performance and found that team learning

partially mediated the linear and nonlinear relationships between diversity and performance. This broadens our understanding of the process by which and the conditions under which expertise diversity promotes team performance.

A contemporary example of the implementation of interdisciplinary teaching models is in the field of digital median design at James Cook University (JCU). The use of published research along with internal data gathered from students led to a complete redesign of the learning program for digital media design students. An important component of this approach, known formally as the POOL Model, is the implementation of a multidisciplinary system of interdependent collaboration and expertise exchange across university, industry and community sectors (Fleischmann, 2010). JCU has implemented the program at undergraduate level to introduce students to collaborative multidisciplinary research practice beyond the structures that form a university.

In practice, the POOL Model provides for a ‘pool’ of resources from a learning perspective and a teaching perspective with dedicated specialists (students, academics and industry professionals) from diverse but related disciplines available to contribute. In each pool, multidisciplinary groups are required to work together to either define a problem (teaching pool) or solve a problem (learning pool). In the teaching pool, educators work in collaborative teams to define a problem or project and create a learning environment for student teams to either solve a problem or develop a project.

The learning environment is designed to consist of mixed-discipline lectures with all students participating, specialised knowledge teaching, mixed-discipline seminars, and team or discipline-specific consultations. It also allows for individual or team-based research, project presentations, workshops, and other forms of knowledge exchange.

Repko (2008) suggests that four important cognitive capabilities can be enhanced through interdisciplinary learning. These include the ability to (1) develop alternative

disciplinary perspectives, (2) develop structural knowledge of problems and offer linkages between domains to address a problem, (3) integrate conflicting insights from several disciplines and (4) develop an interdisciplinary understanding of the problem built through cognitive advancement.

This study proposes an examination of the practices associated with team teaching to address how these four cognitive capabilities are enhanced within two different interdisciplinary experiences. We apply this analysis to two interdisciplinary subjects (one postgraduate and one undergraduate) that aim to replicate team environments in business settings.

### **Interdisciplinary Case Studies**

This paper assesses two different teaching experiences which involved academics from a variety of business disciplines. One subject has been taught three times while the other has been taught twice. Both experiences resulted in sustained collaborations and were considered by both the students and instructors to be excellent learning experiences. These cases provide the opportunity to explore the intricacies of team teaching.

#### **Mergers and Acquisitions Subject**

Mergers and Acquisitions is a post-graduate subject taken by students in the Master of Finance, Master of Financial Management and Master of Business Administration programs. The two instructors come from disciplines of management and finance. The finance academic had been teaching a case-based finance course which culminated in a simulated merger session with student teams assigned to a variety of roles. While her finance students gain strong valuation skills and student evaluations reported the courses to be an excellent learning experience, the instructor noticed that the negotiations always reduced to a discussion of

price. In the real world, the emphasis of such a distributive (i.e., zero-sum) negotiation approach is unlikely to lead to an optimal outcome for all parties, especially in the context of a merger or acquisition negotiation that often depend on the proposed synergy values that can be gained by reaching mutual agreement.

Wanting to capture more of the complexities of merger negotiations in the real world, the finance instructor began a dialogue with the management instructor who teaches an experiential learning-based negotiations course. His course provides students with a foundation in negotiation theory and practice through negotiation simulations and discussions. After some preliminary discussions, the management instructor invited the finance instructor to view some of his classes' negotiations and this revealed that the negotiations students were developing the interpersonal, analytical, and planning skills that would be very useful for finance students negotiating mergers. During a meeting after the negotiations session and comparison of their two subjects, the management instructor concluded that general business majors would have better negotiation skills if they mastered basic valuation skills.

With growing concern about both the relevance of postgraduate business education (Mintzberg, 2004) and the transfer of knowledge and skills into practice Warhurst (2011), the instructors decided to offer an interdisciplinary postgraduate business subject to address these concerns. After a high degree of collaborative planning, the instructors designed a team-taught course entitled, Mergers and Acquisitions that integrates relevant aspects from both of their subjects. The instructors opted for an intensive mode of teaching using larger blocks of time (three weekends at the end of Weeks 1, 4 and 9) to allow flexibility for a diversity of instructional activities (Cawelti, 1994) and to enable postgraduate students to undertake studies while minimizing interruption to their employment (Crispin et al., 2016).

Mergers and acquisitions (M&A) is an aspect of the corporate strategy dealing with the buying, selling, dividing and combining of different companies that could benefit the firm(s). The primary aim of the M&A subject is to give students the analytic and interpersonal skills required to make a holistic assessment of the merger applying industry-accepted valuation methods and then map out and utilise an integrated, adaptive planning negotiations framework for given negotiation situations to achieve desired outcomes.

The course is organized into three sections which correspond to the weekends. The first weekend has a focus on the fundamentals - - creating, measuring and claiming value. Through the use of readings, cases, lectures, discussions and role plays, the instructors work separately with the students to build the foundation for the negotiation process and develop financial models (e.g., discounted cashflow, relative valuation, and precedent transactions) to measure of the value of the target firm as a stand-alone entity. The second weekend focuses on value creation with particular attention paid to the valuation of the merger synergies. The instructors work together and present the students with opportunities to integrate their negotiation and valuations skills in a mock merger negotiation and a trading room simulation. The third weekend cements skills in negotiations planning and processes and then culminates in a three-hour team merger negotiation which meaningfully integrates the students' negotiation and valuation skills to achieve a successful merger process and outcome.

The progression of the assessments reflected the increasing levels of integration and complexity in the course. The earlier assessments were all completed as individual assignments to ensure that each student had acquired the fundamental valuation and negotiations skills required to advance to the next level. The final assessments required students to work with their assigned teams (of three to four students) to apply both negotiation and valuation skills to a single comprehensive merger situation.

The M&A course has consistently been evaluated by students as an excellent learning

experience that was, “*well prepared and executed*”, with an average rating of 4.75 on 5-point scale. Students commented that with the learning and assessments having such a high level of integration, their “learning outcomes more realistic and applicable to real world scenarios.”

Additionally, the four important cognitive capabilities that Repko (2008) believed could be enhanced through interdisciplinary learning have been advanced. Students in the team-taught M&A subject developed alternative disciplinary perspectives when compared to subjects in the single disciplinary counter-parts as evidenced by the final negotiations which also included board seats, job security, succession planning, management compensation, payment type, along with price as key negotiation points.

The use of a single business case in the final weekend enabled the students to demonstrate their structural knowledge of the problems from each discipline through the preparation of individual negotiation plans and comprehensive valuations prior to the beginning of the weekend. In order to have a successful live negotiation session, the students needed to produce linkages between the two disciplines to address the merger. Each student was assigned to a three-person team that was given the role of the target or the acquirer and matched against a comparable team (based on skills and abilities in negotiations and valuation) for the live negotiation. The diversity of the members of the teams facilitated these linkages.

Team diversity further enabled students to integrate conflicting insights from the different disciplines. From the finance perspective, students realize that an incorrect valuation could result in the acquirer paying more for the target firm than the true market value of the stand-alone firm plus an appropriate proportion of the synergies. Therefore, the acquirer would be inclined to make a ‘low-ball’ offer. However, a conflicting insight from negotiations theory warn of the potential of low-balling in value-destruction as it can be taken as an insult, if it is not fully explained by market realities. Additionally, rather than focus on

their own viewpoints, the merger teams learned to discover point of view of the other party in order to optimize i.e., find a win-win solution.

Lastly, we observed that the students developed an interdisciplinary understanding of the merger which was built through cognitive advancement. This was clearly evident as our weekend sessions occurred in three consecutive months. We use the analogy of learning to ride a bike to describe the cognitive advancement over the course. In the first month, students learned the fundamentals of valuation and negotiations which was equivalent to riding a bicycle with training wheels. In the second month, students demonstrated their skills in a mock negotiation and merger simulation, but made many mistakes e.g., they fell off their bikes several times, but were actually riding. By the third weekend, the final merger negotiations were well-planned and executed and demonstrated a mastery of their valuation and negotiation skills e.g., they could ride their bicycles anywhere and some students were ready to compete in the Tour de France. Students acknowledged that the interdisciplinary nature of the subject was able to ‘unlimit’ the level of possible learning. One student reported, “I could do this subject again and still learn valuable skills from it. It should be mandatory for all Master of Finance and MBA students.”

### **Business Model Generation and Execution**

Business Model Generation and Business Model Execution are two separate undergraduate foundation subjects taken by students in the Bachelor of Business degree program. They were designed together as part of a broader redesign of the program and have run twice since inception. Students are required to study the subjects as a pair, transitioning from the successful completion of Business Model Generation directly into studying Business Model Execution in the subsequent semester. The subjects are taught by two instructors from the disciplines of entrepreneurship and management. Both instructors are recognized for their

highly experiential learning strategies and are recipients of national citations for outstanding contribution to student learning.

The subjects allow students to experience both the entrepreneurial method and the managerial approach to business development by challenging them to design, generate, execute and wind up a business venture. Students initially form teams of three and iteratively progress through a stage-gate approach to business model generation to result in teams of ten to thirteen that execute a validated business model during the second semester. The pedagogical approach that undergirds student learning as facilitated through these subjects is that of building entrepreneurial self-efficacy: the reflected belief that students are “*capable of successfully performing the various tasks and roles of an entrepreneur*” (Chen, Greene, & Crick, 1998). Students develop employability skills and resilience through experiential real world entrepreneurial roles and responsibilities while they are still students.

The students work in progressively-evolving groups throughout the first semester. Some ideas gain traction and others do not, with the students tasked with exploring the reasons why. The first semester progresses through a series of stage gate pitches where thirteen teams of three progressively become eight teams of five, five teams of eight and finally either four teams of ten or three teams of thirteen, depending on the viability of the business models developed. These four stages are themed around the topics of creativity and ideation, customer discovery, prototyping, and validation. Industry experts complement the instructor to contribute practical relevance to the academic material and students apply each of these skills to their real world entrepreneurial endeavours. A final report consolidates the business models in preparation for the Business Model Execution and students write an individual reflection on their learning experience in the subject.

At the beginning of the second semester the final student teams pitch their business models and final reports to a panel comprised of the instructors, other academics and external

industry experts. Each endorsed team is awarded finances of up to \$3,000 from the Bond Business School to fund the actual implementation of the entrepreneurial idea in the second semester. This is structured as a forgivable loan with proceeds of the groups' operations first going to cover direct expenses, then to repay the loan, and finally any surplus being donated to a charity of the groups' choosing.

The Business Model Execution subject is similarly structured into three main topics: initiation and planning; execution, monitoring and managing; and closing, reporting and reflecting. The teams do not alter in student composition throughout this semester, with the focus for each team on the execution of the business model that has been validated through the Business Model Generation subject. In this semester the students complement the entrepreneurial method with managerial theories and approaches, learning elements of organisational behaviour, teamwork and leadership through applying theory through the action lens of experimentation in their entrepreneurial ventures.

Individual learning journals form a significant component of the assessment of Business Model Execution, enabling students to reflect upon their experiential learning journey and how it relates to the business they are executing. A final group report encourages cross-disciplinary team collaboration in capturing the entire life cycle of the entrepreneurial venture from ideation through to liquidation. Repko's (2008) cognitive capabilities are addressed extensively through this highly-immersive, cross-disciplinary pair of subjects. Alternative disciplinary perspectives are embedded in the design of the two subjects, structurally challenging students to compare and contrast the similarities and differences between the entrepreneurial and managerial approaches to business development. The experiential design centred on an initially iterative and then stable business venture allows students to apply theories and frameworks from different disciplines to a consistent case study. Furthermore, the positioning of the subjects as foundation courses in the degree

program, coupled with team sizes as large as ten to thirteen, results in teams comprised of students undertaking a variety of different majors. Problem solving becomes multidisciplinary as a matter of course and students gain a complexity of insight into the decision-making and dispute resolution processes within organisations. Individuals can observe and internalise the analytical approach of others from different disciplines, encouraging increased awareness and appreciation of the positive contributions of a multidisciplinary approach to problem solving.

A particular challenge for the instructors is ensuring a seamless transition between the two subjects, ensuring the students can feel both the connection and the difference. The instructors spend time in each other's class, setting expectations and smoothing the transition for the students. The fact that the subjects were designed as a pair is a big advantage. Even so, minor changes are consistently made to improve the student experience and increase the efficacy of the learning objectives.

Students reflect on their apparent increased confidence, on a deeper understanding on the complexities of starting and growing a business, and on the challenges of multi-disciplinary teamwork. The experiential nature of the subjects gives practical relevance to the academic material provided and students claim to have had a transformational experience. Topics within both subjects are linked with other foundation subjects like Marketing and Accounting and the impact of the course design spreads to other areas within the degree.

### **Discussion**

A number of novel issues arise in approaches to team teaching for interdisciplinary programs. For instance, while the rotation of instructors through the course permits great efficiency and subject depth since each instructor teaches only the course topics that fall within their specialty; however the downside is that students must then adjust to each new

teacher's style through the course (Morlock et al., 1988). The design of M&A circumvented this by having both instructors present for all sessions, with the exception of the negotiation skills and valuation skills workshops in the early classes. This did raise the issue of workload equity as each instructor was credited with teaching a half course while the in-class time commitment was equivalent to a whole course.

A key benefit of team teaching is the greater capacity for feedback that students receive from the portfolio of instructors (Wadkins, Miller, & Wozniak, 2006). Accompanying this however is anxiety around the application of consistent grading standards which requires instructors to explicitly bridge their differences regarding evaluation criteria. With M&A, anxiety around assessment was assuaged by providing detailed grading rubrics for each assessment piece. Additionally, the instructors frequently enjoyed having a 'discipline reversal' where the finance academic stressed the importance of the qualitative aspects of the analysis while the management academic stressed the important of the quantitative aspects of the analysis.

Career academics too often forget that executive decision makers in industry are not fact collectors; they are fact users and integrators. What they need from educators is help in understanding how to interpret facts and guidance from experienced teachers in making decisions in the absence of clear facts. After all, any functionary can make sound decisions when all the facts are available. But having the courage to make a decision based on incomplete knowledge is one of the hallmarks of leadership. If the purpose of tertiary education is to develop executives and leaders then educators must have expertise in more than just fact collection.

The best classroom experiences are those in which academics with broad perspectives and diverse skills analyse cases that have seemingly straightforward technical challenges and then gradually peel away the layers to reveal hidden strategic, economic, competitive, human,

and political complexities—all of which must be plumbed to reach truly effective decisions (Bennis & O’Toole, 2005). In M&A, the students had the opportunity to approach the final case using a variety of lens and experienced, first-hand, that this resulted in more effective decisions than had a single disciplinary approach been taken.

Shibley (2006) focused on the challenges associated with the instructors’ pedagogy differences in interdisciplinary team teaching. We heeded his warning from some unsuccessful experiences and focused on strong planning and content integration. Additionally, with M&A, we paid much attention paid to turn-taking. One student’s comment sums it up, “*George and Colette go together like Peanut Butter and Jelly.*”

Although the instructors come from different disciplines, all bring business consulting experience to their teaching and strive to provide support so that business students can handle the complex s real world business problems described by Papadopoulos et al. (2011) and highlighted as a deficiency by the Australian Business Dean’s Council who identified the “lack of engagement with real-world problems by business graduates ... as a widespread concern among industry, academic and professional associations” (Freeman, Hancock, Simpson, & Sykes, 2008, p. 32, p. 32).

Hazen and Higby (2005) report that mutual trust is an essential element of co-teaching and these instructors believe that this has been a key element in the success of these team-teaching experiences. All instructors embrace experiential learning approaches in the teaching of their single discipline subjects and all have been rewarded with multiple teaching awards and accolades. This commonality helped establish a base level of mutual research and led to the instructors initiate the coteaching experiences which is another aspect cited by Hazen and Higby (2005) as a predictor of succesful team teaching. They also spoke on the benefit that all participants (students and instructors) have the opportunity “to teach as well as learn, and creates knowledge with others”. M&A demonstrated this as the MBA students

brought a very different skills set to their teams and this was treated with mutual respect. The instructors also reported the benefits of learning from their co-instructors.

They also cite that an intensive course format increases the sense of a learning community among students and instructors. This was definitely the case with M&A as students demonstrated a high level of cohesiveness, with teams eating together and some pulling the 'all-nighter' prior to team assessments. In one specific example, a student texted the instructors to let them know that she may be late for class as her team mate's train had been delayed so she was picking her up at the station so that she did not have to take the bus to class. These students did not know each other prior to the class and the commuting student was actually taking the subject in a cross-institutional agreement with a different university. Even in the BMG/BMX course that was taught in more conventional semester formats, using teams and varying teaching methods helped to build a sense of community as predicted by Hazen and Higby (2005).

### **Conclusion**

These experiences provide a microcosm in which to explore the intricacies of interdisciplinary team teaching. We demonstrate how the four key interdisciplinary cognitive capabilities outlined by Repko's (2008) were enhanced through these interdisciplinary learning experiences. We have confirmed that a high level of integration in the planning, teaching and evaluation is required for success and that commonalities in teaching philosophies and a mutual respect among instructors led to more successful processes and outcomes.

Our two experiences represent courses where the content naturally lends itself to interdisciplinary teaching since both disciplines strive to solve the same problems, but from different viewpoints. Rather than the pedagogical differences presenting a barrier, instead they led to design of subjects that naturally leverage the differences in the disciplines. This

enabled us to enhance student cognitive capabilities, relative to a comparable single discipline course. An unanticipated benefit was increased student motivation. One student reported of the team-taught M&A experience, “Their balance as professors gives you the drive and motivation to strive for excellence in the class!”

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