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# ABSTRACT

Although the business community has long expressed a strong need for graduates with horizontal management and cross-functional skills, undergraduate business education continues to deliver curriculum that reflects conventional vertical approaches to organizational structure and business functions. The silo delivery of course content is reinforced by the traditional solo teaching methodologies used in business education. In order to provide the horizontal, cross-functional education desired by business stakeholders, it is necessary to integrate coursework in a manner that reflects the contemporary business team environment. To address this need for cross-functional integration, the College of Business at Northern Arizona University has designed and implemented a team taught class known as BizBlock. This paper presents the teaching methodologies used by the BizBlock faculty and addresses the significant issues associated with team teaching: discipline content, power differences, and the disincentives of team teaching.

# INTRODUCTION

Traditionally, business schools have designed curriculum that reflects conventional vertical forms of organizational structure and functions. Course content focuses on specialized disciplines to provide students with a thorough grounding in their respective disciplines. This silo mentality is reinforced by the solo teaching used in many business schools. Solo teaching reinforces vertical management and functional isolation at a time when businesses need horizontal managers and functional integration. In traditional curriculum delivery, students learn functional competencies but not cross-functional skills (Corsini, Crittenden, Keeley, Trompeter, & Viechnicki, 2000; Wheeler, 1998).

Although business practitioners express the need for change in pedagogy, many business schools, especially at the undergraduate level, "have continued to deliver their core common body of knowledge in a curriculum compartmentalized by discipline" (Miller, 2000, p. 113). Faculty is trained in Ph.D. programs to be experts in a narrow discipline and to offer their expertise to students and colleagues. Any training teachers receive in Ph.D. programs focuses on covering core body of knowledge content using lecture and discussion. As stated by Stinson and Milter (1996), "Traditional faculty orientations are strongly embedded in the culture and in the profession and reinforced by the existing structures and reward systems" (p. 39).

Team teaching has long been used in cross-functional MBA courses (Young & Kram, 1996). However, courses at the undergraduate level rarely use team teaching. In 2000, Northern Arizona University's College of Business Administration implemented team teaching in an undergraduate course by offering a new course called BizBlock. The course objective for BizBlock was to combine the material from three core undergraduate business courses (management principles, marketing principles, and business communications) into a single ninecredit-hour course block. Although the objective was to combine the material, the challenge lay in combining the faculty. The integrated course content was to be delivered by a team of three faculty, one faculty from each of the core disciplines. As highlighted by Young and Kram (1996), power differences (power differences among disciplines and departments, power differences among individuals, and knowledge-based power differences) would prove a significant challenge to BizBlock team teaching success.

The biggest hurdle in the development of BizBlock was aligning faculty perceptions of what basic concepts from each discipline needed to be included in the course. Schatz (1997) noted that "most business school curricula is geared toward a 'brokered' compromise between fiefdoms that results in sub-optimization of the parts, rather than viewing itself as a total system that needs adjustment." Academic faculty is trained to be experts in their discipline and they demonstrate this expertise as a classic "sage on the stage." Through their extensive training, faculty has been convinced that each element of content in their particular discipline is critical to their students' learning. As such, "most academics have been socialized to regard their classroom as a sovereign territory over which they rule" (Young & Kram,

1996, p. 507). The concept of team teaching challenges this knowledge-based power position and sets up a significant barrier to success.

Overcoming this barrier required BizBlock faculty who were willing to test the dominant paradigm of teach, learn, practice, and assess (Peterson, 2004), and embrace newer teaching methods. According to Young and Kram (1996) team teaching requires "constantly listening for new opportunities to make connections, pose questions, or remaining silent. It means guessing what your teammates are thinking, especially when the unexpected occurs. It means staying flexible and communicating with your colleagues, in real time, before a live classroom audience" (p. 501). This is neither the job description that most academics accepted nor one that is easy for them to embrace.

# **BIZBLOCK – A COURSE DESCRIPTION**

Before discussing the rationale for the team teaching methods used in BizBlock, it is valuable to provide an overview of the course design. This overview is presented at a cursory level to provide the foundation needed to understand the rigor and challenges behind this particular team teaching effort. For both students and faculty, BizBlock is unique in its implementation. However, many of the implementation details are intentionally omitted from this overview to focus attention instead on the elements that are pertinent to the discussion of team teaching. More can be learned from highlighting the distinctive elements of the course than by focusing on the implementation details.

As mentioned previously, BizBlock is an integrated combination of three required junior level core business courses: principles of management, principles of marketing, and business communications. All three courses or the integrated block must be completed to earn a degree in business administration or accountancy. Typically, BizBlock is taken during the first semester of the junior year and represents the first upper division business courses taken at the university. For many students this will be the first course taken at the university level, having transferred from local community colleges. Experience in a team teaching environment will be minimal or non-existent among these transfer students. In addition, these traditional students have not experienced the workload and time commitment required by this comprehensive course.

A team of three faculty instructors, representing the three disciplines included in the course, facilitates BizBlock. The course meets two times a week in 4 ½ hour time blocks. Each instructor issues a grade for the equivalent of three credit hours; thus, students will receive three grades on their transcript representing each of the three discipline courses in BizBlock. Each instructor grades integrated assignments independently, and students often receive different grades on the same assignment that reflect their ability to apply discipline specific knowledge.

BizBlock is taught using facilitated discussions, breakout sessions, and a limited number of interactive traditional lectures. The three faculty members remain in the classroom for the entire class session to participate in discussions and encourage class participation. Actual lecturing and facilitation time is allocated among the instructors during a pre-class planning session based on student and project needs. The faculty team holds consulting sessions with individual students or teams by appointment.

Students in BizBlock are organized in teams of five to seven depending on the class size. It has been determined that faculty facilitation of more than ten teams results in decreased performance and thus team size is dictated more by the maximum class size of 70 student than by research suggesting optimal team size. The student teams are presented the problem of identifying a customer need and developing a business plan that fills that need. Lectures, assignments, exams, and activities are designed to motivate students to develop, improve, and augment their understanding of the problem.

The problem and resulting business plan are developed and revised throughout the semester long course. Details are added, concepts are reinforced, and corrections are made to submitted drafts before the plan is presented for final grading. Additionally, the plan is presented four times throughout the semester to gather extensive feedback and improve the delivery. Final plans are presented in a competitive format before a panel of 3-5 venture capitalists that provides outside validation to the work that has been done. This panel determines how much funding should be awarded to each team. The team awarded the highest percentage of the funding that they requested is the winning team and is often given the opportunity to revise the plan for organized undergraduate business plan competitions.

The teaching team models team behavior for the student teams. Thus, it is imperative the teaching team functions well or the students will recognize the hypocrisy in any suggestions made to resolve team problems. Conflicts, communication difficulties, and ambiguity are all part of business teams. An essential part of team teaching is the modeling of effective responses to these team problems.

### **BIZBLOCK – TEAM TEACHING**

Team teaching was introduced in the mid-1950s as a pedagogy where team members from different disciplines came together in the classroom to contribute their particular expertise (Wenger & Hornyak, 1999). The education literature confirms that business schools have begun revamping their curricula to include team teaching in the pedagogy (Fukami et al., 1996; Gallos, 1996; Napier, Hang, Nai, Thang, & Tuan, 2002). However, team teaching is most often implemented by faculty members teaching individual sections of the course sequentially, maintaining clear boundaries between their areas of expertise. This method is labeled the "sequential motif" by Wenger & Hornyak (1999). Research indicates that although this

implementation has the advantage of exposing students to multiple experts, it doesn't allow some of the broader potential benefits of having multiple faculty participate concurrently in the classroom such as exposure to professional disagreement and conflicting viewpoints, intractable methodological conflicts, unanswerable questions, and more sophisticated learning approaches (Hamilton, McFarland, & Mirchandani, 2000; Napier et al., 2002; Watkins, 1996; Wenger & Hornyak, 1999). More importantly, sequential team teaching fails to take full advantage of the integration opportunities that occur spontaneously.

Two alternatives to the sequential motif, the "distinctions motif" and the "dialectic motif," are offered by (Wenger & Hornyak, 1999). In the distinctions motif one instructor covers the basic course principles while another instructor acts as a conversational partner to add personal experiences, examples, and insight to the material presented. Roles change depending on the subject but efforts are made to prevent one instructor from being identified as the definitive expert on the subject of discussion. Augmenting the open discussion format created by the distinctions motif is the dialectic motif. In this team teaching format, the objective is to create debates that demonstrate differences in professional perspectives. This methodology significantly challenges the teacher as authority model and allows multiple viewpoints to be articulated as they might be in an actual business environment.

Although Wenger and Hornyak (1999) make the clear distinction between the three motifs of team teaching, it is suggested that implementation may follow a progression from the sequential to the dialectic motif as the teaching team develops trust. As Wenger and Hornvak (1999) point out this teaching team progression parallels the learning objectives identified in Bloom's Taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). Each sequential motif addresses correspondingly higher levels of Bloom's Taxonomy. Thus, the sequential motif reflects the learning objectives of knowledge and comprehension, the distinctions motif reflects the learning objectives of application and analysis, and the dialectic motif reflects the learning objectives of synthesis and evaluation. However, as Krathwohl (2002) points out, "Bloom's original taxonomy represented a cumulative hierarchy; that is, mastery of each simpler category was prerequisite to mastery of the next more complex one" (pgs. 212-213). This observation would imply that simply teaching at the highest-level motif achieved by the teaching team would leave students without the foundation needed to comprehend at the higher-level objectives of Bloom's taxonomy.

The relationship of team teaching to the educational objectives of Boom's taxonomy might lead to the conclusion that a sequential motif would be more appropriate for undergraduate classes containing core material and a dialectical motif would be more appropriate for graduate level students in an MBA curriculum. This is not the conclusion accepted by the creators of the undergraduate course called BizBlock. There is an issue of learning maturity and undergraduate students would clearly not be as accepting of a dialectical learning environment as graduate students but there exists sufficient maturity to use a combination of motifs. The BizBlock teaching team continually questions the motif being utilized to assess its teaching effectiveness. Setting the higher level of learning objectives of Bloom's taxonomy as a goal, the BizBlock teaching team assesses the student acceptance of a distinctions and dialectic content delivery and reverts to a sequential environment when teaching effectiveness declines.

The BizBlock teaching team consisted of three experienced instructors representing three disciplines: management, marketing, and business communication. The combination brought together three different personalities, work styles, and life experiences. As observed by Wenger and Hornyak (1999), building trust is critical to developing an integrated team-taught class environment. The BizBlock teaching team confirmed that as trust among the team members grew, the ability to deliver content in the distinction and dialectic motifs grew; however, the progression from one motif to the next as suggested by Wenger and Hornyak (1999) was neither sequential nor complete. To build trust and deliver the content in the distinction and dialectic motifs required the commitment by each of the team members to be present in the classroom during the entire class period (nine credit hours of contact time). This commitment eliminated the tag team practice of having only a single instructor in the room and trading off lecture times, thus affording the possibility to move beyond the sequential motif. The commitment gave team members an opportunity to draw integrative elements, participate in other team-member led discussions, and build the trust needed to teach with the non-sequential motifs (distinctions and dialectic).

While BizBlock has progressed over its five-year history, it has not evolved sequentially to the dialectic motif. Driven by both teaching team composition and student learning needs, all three motifs are adopted as necessary. The BizBlock teaching team composition has changed five times but the commitment to being present in the classroom has helped to build trust quickly and allowed a rapid transition to teaching at the higher levels of Bloom's taxonomy. The BizBlock teaching experience has confirmed the research that team teaching success depends on the team's ability to deal with difficult personalities and a general willingness to give up control (Napier et al., 2002; Silver & McGowan, 1996; Sorensen & Wittmer, 1996; Young & Kram, 1996).

Young and Kram (1996) noted that power differences "are particularly influential within cross disciplinary teaching teams" (p. 503) like those used in BizBlock. The danger is that one of the participating disciplines identifies itself as more important to student learning than the other disciplines included in the team-taught class. By dominating the course content, the perceived value of the other

discipline content is undermined. Perhaps losing control of the class would not be an issue for some faculty; however, academic reward structures are not consistent with giving up control. The reward system at Northern Arizona University relies on student evaluations to assess individual instructor performance. At present, there is no system in place to assess the performance of a teaching team. Because team teaching is the exception rather than the rule, even if there were a team evaluation there would be few, if any, comparables (the only comparable would be individual evaluations). Such an evaluation system sets up a situation identified by Young and Kram (1996) where "faculty team members can undermine colleagues, consciously or unconsciously, by grandstanding to student interests, by undercutting a colleague's credibility, or by approaching classroom popularity as a 'winner-takes-all' game" (pp. 506-507).

Setting expectations, spending time both inside and outside the classroom, and committing to delivering value to the students are critical in avoiding the self-interest motivation created by a reward structure based on individual teacher evaluations. The BizBlock teaching team members make an effort to become more than research colleagues. The attempt is made to become teaching colleagues where open communication and constructive feedback are common.

In addition to the student-learning benefits of team teaching there are number of social and practical benefits. Team-taught courses, such as BizBlock, offer a social network of peers that provide constructive feedback, support, and collaboration opportunities. Having colleagues actively participate in classroom discussions creates opportunities for self-development through constructive feedback (Napier et al., 2002), reinforcement of linkages across topics (Wenger & Hornyak, 1999), and broadening topic expertise (Wenger & Hornyak, 1999). "Teaching on a team not only inspires us to become better teachers, it also suggests specific ways in which we may do so. Team teaching offers an ongoing lesson not only in the other disciplines but in pedagogy itself" (Young & Kram, 1996, p. 505).

The social network of team teaching provides support for planned and unplanned disruptions in the schedule. For example, courses do not need to be canceled because of a team member's illness or conference participation. Additionally, any subjective grading situation such as student presentations appears less subjective and hence more palatable to students when there is team consensus of the grade. Benefits are also observed among students of team taught classes. Reaffirming a prior observation by Wenger and Hornyak (1999), students reported that teamed instructors enhance interest, make the classroom more fun and informal, and improve student listening.

Even though the benefits are clear, as Napier et al. (2002) point out "University professors typically revel in answering to no one but themselves ... our teaching is solitary, fits our style, and allows little invasion. Team

teaching, conversely takes more time and demands that two (or more) people work jointly to create a successful class" (p. 430). More time is spent in organizing the course, building trusting relationships, and planning the class. In BizBlock, significant time is spent organizing the course to cover essential discipline concepts and best use the teaching style of each of the team members. Class planning includes modifying the course schedule to accommodate planned absences. The organizational aspects are complicated when the team composition changes. As noted by Wenger and Hornyak (1999) team changes introduce a significant learning curve in terms of coordination, efficiency, and classroom effectiveness. It takes additional effort to build the trust needed to deliver the content efficiently and effectively. Considerable pre-class preparation is necessary each day to adapt the schedule for team administered elements of the course (distinctions and dialectic motifs), elements administrative (announcements, special instructions, and the joint return of assignments), and rescheduling missed subject material.

In team-teaching Lewin's (1958) three-step change model (unfreeze, change, and refreeze) is implemented continually as learn, unlearn, and relearn. Each time BizBlock is taught, either by the existing team or by a new team, there is time of reflection on what the team has learned. What was successful? What was not successful? What should be covered in greater depth? Critical to this process is an honest evaluation of what paradigms have developed during course that should be challenged. What should be dropped? How could time be better spent? How could the student's experience be improved? Finally, time is spent on course modification to implement the improvements.

# DISCUSSION – ADVANTAGES AND DISADVANTAGES

In theory, a team-taught implementation should push irrelevant material out of the curriculum by eliminating overlap and lessening the teaching demands on faculty. In BizBlock reality, this process of removing irrelevant material occurs slowly and new material replaces old at roughly equal rates. As the learning outcomes are assessed by outside business leaders during final presentations, new ideas and material are incorporated into the curriculum. This dynamic process of constant change creates some dilemmas for faculty team members. It is documented by Barrows (1986) that the lecture-based method is the least expensive teaching method in terms of cost, time, and effort because "It requires the least effort for curriculum designers and no special teaching skills or materials" (p. 485). In contrast, BizBlock is expensive in terms of learning curve costs which are driven by a reiterative adaptive process and the need for faculty with facilitatory teaching skills.

If it is true as Napier et al. (2002) suggest, "faculty members team teach for the incentives they receive" (p.430), then, the incentive rewards from teaching BizBlock

must exceed the costs. What are the incentive rewards for undertaking a complex effort? It is not monetary, for no additional compensation has been offered the BizBlock faculty. It is not favorable treatment in the promotion and tenure process, for the risks are have been documented by Hill (1990) and Bechtel (1988). In practical terms the problem is highlighted by Young and Kram's (1996) description of faculty reward systems. "The formal student evaluations ... were the most apparent aspect of our reward system that discouraged team teaching. Each professor was motivated to impress students with his or her expertise and classroom effectiveness because these individual ratings were published at the end of the semester and stored in the faculty members' personnel files" (p. 509). Young and Kram (1996) conclude that as long as tenure review focuses on individual faculty members' performance in the classroom there will be a reluctance to abandon the individual instructor student evaluation process. Thus, there will continue to be a disincentive to be part of teaching team.

A solution is offered by Young and Kram (1996) to provide additional teaching credit for team-taught courses: "It has become clear that we need to allocate more teaching credit for team-taught courses to compensate the additional time required outside the classroom" (p. 513). This same suggestion has been made by the Northern Arizona University's College of Business Committee on faculty workload but has not been implemented. Clearly, the incentive system is not aligned with the demands placed on team teaching faculty. The clearness of this need for additional compensation can be disputed using an effectiveness argument. There exists little validated empirical research to prove that such additional compensation is justified by increased student learning.

So why would faculty participate in a team teaching environment? The incentive to participate in the demanding environment of team teaching comes from the results. The costs are high, but the intangible rewards such as delivering value to education stakeholders and changing student lives are the reasons many professors have chosen to teach. It is precisely these rewards that team teaching offers and what makes BizBlock a continuing success despite the risks.

#### **POTENTIAL RESEARCH**

This paper presents a number of rich opportunities for future research focusing on team-teaching. These areas could be investigated individually or in combination. An obvious strategy is to do empirical studies of a comparative nature, e.g., comparing pre-course/post-course knowledge levels of a team taught course with a non-team taught course. These comparative efforts are fraught with difficulty. The most significant problem is the inability to control parameters that have been shown to bias results. For example: difficulty randomizing and controlling the student group profile, difficulty controlling for different instructor personalities, and difficulty comparing outcomes when objectives differ. Thus, it is prudent to remain focused on case study research and measure the benefits without comparison.

The team teaching literature discusses obstacles to successful team teaching which often include time available for organizing a course, the lack of appreciation for the difficulty of team teaching, and the difficulty of finding satisfactory evaluation approaches (Davis, 1995; Napier et al., 2002). Do these difficulties matter to team teaching success? What are the main drivers of team teaching success? Is the major success factor trust? What is the optimal team size and does team size matter? BizBlock has been successful with five different teams so what is the reason for this success? Wenger and Hornyak (1999) claimed that one of the major benefits of team teaching is that it provides a model for students of "a wide variety of professional interactions including disagreement, exploration, concept evaluation, conflict, resolution, and collaboration" (p. 312). Although the BizBlock faculty has received feedback suggesting this phenomenon, no empirical evidence has been collected and it is unclear if there is a positive or negative impact on student learning.

Finally, the BizBlock team collected anecdotal evidence that one of the significant outcomes of a team taught course is the opportunity for students to learn by observing a model team. In addition to delivering course content, the BizBlock faculty is modeling team behavior for the students. The faculty team models time management, conflict resolution, and professional discourse during a team-taught course. Future research could supply empirical validation that team modeling is critical to a student learning. Additionally, it might be possible to validate the premise that the team-modeling present in a team-taught environment better prepares students to function in modern horizontal business structures.

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